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TREATMENT OF ECLAMPSIA*

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ECLAMPSIA is a rare condition when we consider the frequency of pregnancy, and always has been looked upon as one frought with grave dangers for the mother and the child. We have no means of definitely determining the frequency of its occurrence, because its development is so greatly influenced by conditions of life to which the individual is subjected. Nor have we any evidence to show that the incidence of eclampsia is decreasing. Conditions of life today, which tend to produce bodily inactivity, over-eating and anxiety, favor its more frequent occurrence.

In the earliest medical literature, we find accurate descriptions of the occurrence of convulsions and coma during pregnancy. Eclampsia, however, must have been very rare in times past when conditions of life were more favorable for promoting the general health of women in pregnancy. In those days women were accustomed, during pregnancy, to continue to labor in the fields, or to work at household duties, eating a coarse, simple diet, with ample sleep and freedom from the worries and anxieties of the present day. Today, in our efforts to prevent eclampsia, we endeavor to improve and maintain the health of women during pregnancy by correcting habits of living injurious to their health, and, so far as possible, aiding them to acquire habits generally associated with that simple and healthful life of the past.

The fact that pre-natal care will, in most cases, prevent eclampsia is being demonstrated in all of the maternity hospitals which maintain prenatal clinics. This fact is generally recognized throughout the profession among those practicing obstetrics. Yet, despite this knowledge of the value of pre-natal care, the number of cases of eclampsia is not lessening in general practice.

The hospitals which have been able, in recent years, to show more favorable results in treating eclampsia have profited by their own clinical experience, and, if there is to be any general reduction in the occurrence, or in the mortality, there must be a widespread dissemination and use of the facts thus obtained. The incidence of eclampsia in general practice is too uncommon to enable us to depend on our individual experience in treating this condition. It is quite evident, from the analysis of a large number of cases, that the value of the conclusion drawn from any special method of treatment, necessarily carried out in a limited number of cases, is questionable.

In considering the problem of the treatment of eclampsia, we will consider first some of the reasons for our failure to prevent its development, and second, results of the analysis of 222 cases of eclampsia.

An important factor in providing better prenatal care lies in a clearer understanding of the nature, development and treatment of toxemia. At the present time there is too much confusion over the term toxemia and its many varieties.

From my experience, over many years, in teaching this subject, I know the difficulty the medical student has in grasping the significance and the practical importance of the various types of toxemia. As it is at present described in the various textbooks there is too much theory regarding its origin. A vast amount of clinical material is required to demonstrate the different phases in the various types. As a result, in many cases the essential points in diagnosing the onset of the mild toxemia, which if neglected may develop into eclampsia, are not made clear. If the subject could be taught from a more simplified classification we would have a better opportunity to emphasize that variety of toxemia which precedes eclampsia.

The term "toxemia of pregnancy," as used today, is confusing and unsatisfactory, since it is applied to several conditions developing during pregnancy which are clinically and pathologically unrelated. It seems to us that the term toxemia should refer only to the conditions which from

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their origin, symptoms and pathology show evidence of being a toxic condition.

Morning sickness, pernicious vomiting and acute yellow atrophy should no longer be considered under the term "toxemia of pregnancy."

Morning sickness is being looked upon today by the physiologists as evidence of slight reaction due to the establishment of the physiological changes of pregnancy. It is never a serious condition in itself, and occurs in more than half the cases of pregnancy. It was formerly considered under the term "toxemia," solely, because in some cases it developed into pernicious vomiting.

Pernicious vomiting is no longer being considered by some authorities a toxemia. It was formerly so considered from evidence which is now known to be the result of inanition, or starvation alone. When it occurs, there is always a neurotic basis and, clinically, we get results in practically every case when treated early on the basis of a neurosis; and later, on the basis of an acidosis.

Acute yellow atrophy is a condition which occurs about once in every 20,000 cases. Its diagnosis is positive only at autopsy. It is a condition not confined to pregnancy alone. Clinically, the majority of cases reported might be considered as pre-eclampsia.

It may be that the elimination of these three conditions from the classification "toxemia of pregnancy" will meet with some objection, because of the authorities who still contend that they may be of toxic origin. Nevertheless, we think that there is sufficient clinical evidence to prove that the types recognized as pre-eclampsia, nephritic toxemia and eclampsia are the only conditions which should be classed under the term "toxemia of pregnancy."

In eliminating morning sickness and pernicious vomiting we do not mean to underestimate their importance because we feel that morning sickness, if neglected, is frequently the cause of pernicious vomiting, which in turn, must always be considered a serious complication. We feel, moreover, that in treating cases of morning sickness we have an opportunity, early in pregnancy, to establish for the patient a healthy regime, which is of great importance, if continued throughout pregnancy, in preventing the development of toxemia in the latter months of pregnancy.

Our conception of the nature of toxemia is that it is a condition brought on by the failure of the body adequately to adjust itself to the new conditions incident to pregnancy when there are present added toxins from the intestinal tract, or a diseased kidney. Physiologists maintain that as pregnancy advances the physiological changes increase and more and more is demanded of such organs as the liver and kidneys but that these organs are able to accommodate themselves to these extra demands of metabolism. When, however, there is an excess of toxins from the intestinal tract as a result of over-eating and constipation we soon see evidence of toxemia. And again, when a patient with diseased kidneys becomes pregnant the kidney may be unable to take on the extra demands and toxemia is more likely to develop. This latter condition is known as nephritic toxemia while the former is the pre-eclampsia type.

We no longer consider the toxemia as caused by the toxins derived from the developing fetus or placenta but by defective detoxication and elimination caused by added toxins of protein nature absorbed from the intestinal tract.

When our conception of toxemia was based on the theory that eclampsia was directly due to toxins from the fetus or placenta, immediate delivery of the patient was the chief aim of the treatment. Such radical treatment was, as we now know, a factor in increasing the dangers to both mother and baby.

Clinically it is generally recognized that toxemia is prone to develop during pregnancy when there is evidence of over-eating or constipation, and especially when there is some degree of nephritis.

It is a clinical fact that eclampsia develops most frequently in the first pregnancy. Liability to eclampsia during the first pregnancy is from 7 to 10 times greater than in subsequent pregnancies, when there is no complicating kidney disease. This protection against the development of eclampsia after the first pregnancy is due to the added powers of function of the liver and kidney brought about in taking care of the necessary physiological changes in the first pregnancy.

From their origin, symptoms and pathology, pre-eclampsia and nephritic toxemia, which are liable to develop into eclampsia if untreated, should be considered as the toxemias of pregnancy.

Although pre-natal care will enable us to prevent the development of pre-eclampsia, we must realize that despite this care toxemia will develop in a certain proportion of patients because of a previous nephritis.

If we are to prevent the development of eclampsia the onset of toxemia must be recognized early and proper treatment instituted and thoroughly carried out.

When toxemia develops we should endeavor, as quickly as possible, to determine the type. As the pre-eclampsia type is more prone to develop rapidly the treatment should be prompt and thorough. The nephritic type, developing more slowly, is more easily controlled by treatment and there is less danger of sudden change into the acute condition of eclampsia.

Failure to prevent eclampsia is usually due to a lack of understanding of toxemia. In order to obtain results we must know the causes of toxemia and have a thorough clinical knowledge of its development into the acute stage. This knowledge is necessary both for the early recognition of the toxemia and for the treatment.

We are able to recognize toxemia at its onset by albuminuria and increase in the blood pressure. In the majority of cases the rise in blood pressure may be observed before there is any evidence of albuminuria.

Both symptoms become more evident with the development of the toxemia, but the blood pressure, to a less extent, in the nephritic type as compared to the pre-eclamptic.

Added evidences of the toxemia soon make their appearance. Among these headache is very common to both types, but especially so in pre-eclampsia, while some evidence of visual disturbances and edema are distinctive of nephritic toxemia.

Pre-eclampsia is characterized by its appearance only during the latter half of pregnancy and its tendency, if neglected, is to develop rapidly with increasing severity of its symptoms—headache, rising blood pressure, appearance of edema, in some cases nausea and vomiting, diminished excretion of urine with increasing quantities of albumin and casts, epigastric pain, nervous excitement ending in convulsions and coma.

In nephritic toxemia there is less danger of toxemia becoming acute than with the pre-eclamptic type. When it does develop in such a manner it is almost identical with the clinical picture of pre-eclampsia. It is, however, most commonly recognized by its gradual progress, the symptoms being less pronounced and peculiar to itself, with increasing albumin, slight increase in blood pressure, edema more constant and increasing and resulting in the death of the fetus or inciting labor prematurely, but in some cases developing into eclampsia.

It is quite evident from the nature of toxemia of pregnancy that if we are to prevent its development we must lighten so far as possible the work of the liver and kidneys. We can only accomplish this in two ways: first, to lessen the amount of toxins absorbed from the intestinal tract, and secondly to aid in their elimination. Both methods are accomplished by the carrying out of the well known principle of pre-natal care.

As the toxins are formed from the breaking down of protein derivitives in the large intestines we limit their production and absorption by limiting the protein elements in the diet and preventing their accumulation in the large bowel. We aid in the elimination of toxins from the bowels by establishing regularity; from the kidneys by having the patient drink large quantities of water and from the skin by exercise and baths.

When symptoms of toxemia are evident we make use of these some principles in the treatment.

When the symptoms are observed early and are of mild degree the removal of all protein from the diet and a thorough cleansing of the intestinal tract will, in most cases, clear up the toxemia.

When the toxemia is more pronounced, as evidenced by the symptoms, prompt and more thorough methods are necessary. In such cases the diet is limited solely to water, given frequently in large amounts to dilute the toxins and aid the kidney function. At the same time, the toxins are more thoroughly removed from the intestinal tract by cathartics, usually salines.

The irrigation of the colon in these severe cases is of the greatest value, and is necessary for several reasons. The first is further to help in the removal of fecal contents remaining in the large intestines, and the second reflexly to stimulate kidney function, to increase the fluids in the blood and to dilute the toxins by absorption from the large intestines. By having the temperature of the fluid in the irrigation maintained at 116 degrees F and the patient well wrapped in blankets we increase the elimination by stimulation of the sweat glands in the skin.

In the severest form of toxemia, eclampsia, the same principles are carried out in the treatment. But in eclampsia we have two added factors with which to contend—the convulsions and coma. By the administration of morphine and the avoidance of unnecessary interference we feel that we are able to limit the number of convulsions. The presence of the coma is a serious handicap in our efforts to aid elimination, as it prevents the administration of water through the mouth.

We make no attempt during the acute stage to induce labor or to interfere with labor if it develops spontaneously as it is prone to do. If there is delay during the second stage we do not hesitate to terminate labor by the use of forceps.

The patient must have constant and intelligent attention at all times. It is only by such means that we are able to obtain knowledge of the patient's condition and to prevent the development of complications which in many instances are, in themselves, the determining factors of our success. By a careful observation of the patient we are in a position to administer cardiac stimulation when indicated. In deep coma the lateral posture of the patient, allowing fluids to drain from the mouth, will prevent the development of pulmonary complications. The patient must be protected from injuries to the mouth during convulsions.

We personally do not make use of venesection unless there is evidence of need to relieve the heart strain. We consider it of no value in reducing blood pressure. Its value in reducing the toxins we do not consider sufficient compensation for the dangers in reducing the natural resistant powers of the patient. We have had no experience with transfusion in these cases and have avoided its use on account of the disturbance it might cause to the patient.

We have recently analized the cases of eclampsia admitted to the Manhattan Maternity from the year 1906 up to the present year as well as the cases on the combined services at Bellevue Hospital during the past seven years.

At the Manhattan Maternity Hospital during this period there were 130 cases of eclampsia in 27,450 deliveries.

During the past seven years at Bellevue Hospital there were 92 cases of eclampsia in 14,620 deliveries on the combined services of New York University and Bellevue Medical College and Cornell University Medical College.

Our aim in the analysis and study of these cases has been to obtain as many clinical facts as would be of value to us in our efforts to prevent and treat the condition.

To obtain as many clinical facts as possible which might be of practical value we have considered the subject from the study of the cases under the following headings:

1. Relation of eclampsia to age of patient.
2. Incidence and mortality in primipara and multipara.
3. Relation of onset to labor, and mortality in each type.
4. Relation to period of gestation.
5. Seasonal effects on occurrence.
6. Effects of multiple pregnancies.
7. Repeated toxemias.
8. Mortality at Bellevue Hospital.
9. Mortality at Manhattan Maternity Hospital.
10. Mortality in complete series.
11. Mortality in relation to the number of convulsions, coma, pulse, temperature and blood pressure.
12. Mortality in complete series classified as mild or severe.
13. Results at Bellevue Hospital in mild and severe cases.
14. Results at Manhattan Maternity Hospital in mild and severe cases.
15. Importance of blood chemistry.
16. Classification and mortality from complications.
17. Classification and results of clinic and emergency cases.
18. Study of clinic cases during year 1925 at Bellevue and Manhattan Maternity Hospital.

Of the predisposing factors, the following were considered: age, primipara and multipara, period of gestation, season, previous toxemia or eclampsia and multiple births.

OCCURRENCE AND MORTALITY IN PRIMIPARA AND MULTIPARA

	No.	%	Deaths	%
Primipara	129	58%	26	20%
Multipara	93	42%	21	23%

Eclampsia was more frequent in primipara than in multipara with 58 per cent in the former as compared to 42 per cent in the latter. In the British series this difference was more pronounced—70 per cent. in primipara and 30 per cent in multipara.

The mortality is higher in mulitpara than in primipara. This fact is generally recognized and is undoubtedly due to the presence of some degree, of nephritis in multipara.

RELATION OF ONSET TO LABOR AND MORTALITY IN EACH TYPE

	No.	%	No. Deaths	%
Ante-Partum	110	50%	27	24%
Intra-Partum	51	23%	11	22%
Post-Partum	61	27%	9	15%

Half of all the cases developed before the onset of labor. There were more post-partum cases than intra-partum and the mortality was much less than in the combined ante-partum and intra-partum cases. In the cases from the Obstetrical Service at Johns Hopkins Hospital the mortality was higher in the post-partum cases.

RELATION OF ECLAMPSIA TO PERIOD OF GESTATION

Period of Gestation	24 to 28	29 to 32	33 to 36	37 to 40
No. of Cases	25	41	53	96
Per Cent	11%	18%	24%	43%

The greatest number of cases of eclampsia developed during the last month of pregnancy. During this period there were 96 cases, or 43 per cent, as compared to the previous month of 53 cases, or 24 per cent. Where cases are neglected during pregnancy eclampsia develops

RELATION OF AGE TO ECLAMPSIA

No. of Cases	Up to 20	21-25	26-30	31-35	36-40	41 on
220	45 or 20%	63 or 29%	54 or 25%	29 or 13%	27 or 12%	3 or 1%

We found that age had little or no effect as the incidence of eclampsia was greatest at the period of life when pregnancy is most common—between 20 and 25, but more common between 25 and 30 than under 20.

early. In almost every case receiving pre-natal care the eclampsia developed near the end of pregnancy or during the puerperium.

SEASONAL EFFECTS ON ECLAMPSIA

No. of Cases	Winter	Spring	Summer	Fall
220	56	60	53	51

It is apparent that the season has no effect upon the incidence of eclampsia.

AFFECT OF MULTIPLE PREGNANCIES IN ECLAMPSIA

No. of Cases	No. Multiple Births	%
222	14	6.3%

The normal incidence of twins is about 1 in 80. In this series it was 1 to 16. There were 13 cases of twins and 1 of triplets.

MANHATTAN MATERNITY HOSPITAL

	No. Deliveries, 6,202 1906-1911			No. Deliveries, 21,248 1912-1925		
	No.	Deaths	Per Cent	No.	Deaths	Per Cent
A. P. & Intra P.	27	12	25%	60	12	20%
P. P.	7	1	13%	16	0	0%
Maternal Total	54	13	24%	76	12	15%
Fetal Total	54	31	57%	76	27	35%

PREVIOUS ECLAMPSIA OR TOXEMIA IN MULTIPARA

No. of Cases	No. with Toxemia or Eclampsia	%
93	17	18%

Of the 93 cases 17 gave a history of previous toxemia.

COMPLETE SERIES

TOTAL SERIES

	No. Deliveries, 42,070 1906-1925		
	No.	Deaths	Per Cent
A. P. & Intra P.	168	40	23%
P. P.	54	7	12%
Maternal Total	222	47	21%
Fetal Total	222	101	45%

In the complete series of 222 cases there were 47 maternal and 101 fetal deaths, giving a gross maternal mortality of 21 per cent with a fetal mortality of 45 per cent.

In 2,005 cases in the collected British reports the mean maternal mortality was 22.5 per cent, while the published reports of 247 cases from the obstetrical clinic of the Johns Hopkins Hospital from 1894 to July, 1924, the maternal mortality was 22.7 per cent. In the collected series Dublin reported 204 cases with 10.29 per cent. Stroganoff in Russia has reported 360 cases treated with a mortality of only 6.6 per cent, while Zwefel in Germany with the same principles of treatment reports 94 cases with a mortality of 5.3 per cent. Stroganoff claims to be able to reduce the mortality to 2 per cent, provided the cases are not neglected. We think such a claim is justified in so much as the severity of the condition is undoubtedly greatly influenced by neglect. The study of the cases in Stroganoff's clinic, published by Stander of Johns Hopkins Hospital, showed that the great majority of cases were mild in character, and over 70 per cent did not develop convulsions until after they were admitted to the clinic for treatment.

In our series only 7 per cent of the cases had been under our care during pregnancy, and over 60 per cent developed convulsions before admission to the hospital. Owing to the delay in getting the patients to the hospital a number died before we had opportunity to establish treatment.

BELLEVUE HOSPITAL

	No. Deliveries, 14,620 1919-1925		
	No.	Deaths	Per Cent
A. P. & Intra P.	61	16	26%
P. P.	31	6	19%
Maternal Total	92	22	23%
Fetal Total	92	43	46%

In the 92 cases admitted to Bellevue Hospital there were 22 maternal and 43 fetal deaths, giving a maternal mortality of 23 per cent and a fetal mortality of 46 per cent.

At the Manhattan Maternity Hospital there were 25 maternal and 58 fetal deaths in the 130 cases admitted, giving a maternal mortality of 19 per cent and a fetal mortality of 45 per cent.

During the years 1906 to 1912 at Manhattan Maternity Hospital our methods of treatment were based on the termination of the pregnancy as soon as possible. Since that time we have followed the more conservative methods in general use in the maternity hospitals. This change, although gradual, has reduced the maternal mortality from 24 per cent to 15 per cent, or a difference of 9 per cent, and the fetal mortality from 57 per cent to 35 per cent, a difference of 22 per cent.

The severity of the condition is indicated by the severity of the symptoms. The important symptoms of eclampsia are convulsions, coma, pulse rate, temperature and blood pressure. The degree of edema does not seem to be of value in determining the severity of the condition.

The appearance of convulsions is an added strain on the heart already affected by the increased blood pressure and in cases having more than 10 convulsions we have a more serious condition to treat.

Mortality Rate in Relation to Number of Convulsions

No. of Cases	Ten Convulsions or Less	Deaths	Above Ten Convulsions	Deaths
212	170	28-16%	42	15-36%

In 42 cases when there were more than 10 convulsions there were 15 deaths, a mortality of 36 per cent. In 170 cases with less than 10 convulsions there were 28 deaths, a mortality of 16 per cent.

Coma

	No. of Cases	Deaths	%
Absent	8	0	0%
Semi-coma	91	8	9%
Deep-coma	76	30	40%

In 76 cases where coma was deep and persistent there were 30 deaths, a mortality of 40 per cent, and in 91 cases where the coma was not persistent there were 8 deaths or 9 per cent. In 8 cases where coma was absent there were no deaths.

Pulse Rate

	No. of Cases	Deaths	%
Below 120	120	13	11%
Above 120	775	28	37%

In 75 cases when the pulse remained above 120 there were 28 deaths, a mortality of 37 per cent. In 120 cases when the pulse remained below 120 there were 13 deaths, giving a mortality of 11 per cent.

Temperature

	No. of Cases	Deaths	%
Under 103°	174	23	13%
Above 103°	40	18	45%

In 40 cases the temperature was above 103.° In this group there were 18 deaths, giving a mortality of 45 per cent. While in 174 cases the temperature did not go above 103.° There were only 23 deaths, a mortality of 13 per cent.

Blood Pressure

	No. of Cases	Deaths	%
Under 140	20	2	10%
140 to 200	108	14	13%
Over 200	38	8	21%

In the cases at Manhattan Maternity Hospital before 1912 the blood pressure was not generally taken, and in some of the cases which died shortly after admission there was no record of the blood pressure. In 38 cases when the blood pressure was over 200 there were 8 deaths, a mortality of 21 per cent. This would be greatly increased if we had a complete record of the severe cases which died without blood pressure being taken. In 28 cases when the blood pressure was below 200 there were 16 deaths, a mortality of 11 per cent.

When two or more of these severe symptoms were present we considered the case to be severe, and have classified the entire series under mild and severe.

In the total series there were 164 mild cases with 17 deaths, or a mortality of 10 per cent. There were 67 fetal deaths with a mortality of 40 per cent. In 58 cases classified as severe there were 30 deaths, a mortality of 51 per cent, and 34 fetal deaths with a mortality of 58 per cent.

Total Series

Mild

No. Deliveries, 42,070
1906-1925

	No.	Deaths	Per Cent
A. P. & Intra P	125	16	12%
P. P.	39	1	2%
Maternal Total	164	17	10%
Fetal Total	164	67	40%

Severe

	No.	Deaths	Per Cent
A. P. & Intra. P	43	24	55%
P. P.	15	6	40%
Maternal Total	58	30	51%
Fetal Total	58	34	58%

At Bellevue Hospital there were 66 mild cases and 26 severe cases. In the mild cases there were 6 maternal deaths, a mortality of 9 per cent, and 16 deaths in severe cases, a mortality of 61 per cent. There were 28 fetal deaths among the mild cases, a mortality of 42 per cent, and 15 deaths among the severe cases, a mortality of 57 per cent.

Bellevue Hospital

Mild

No. Deliveries, 14,620
1919-1925

	No.	Deaths	Per Cent
A. P. & Intra P	45	5	11%
P. P.	21	1	4%
Maternal Total	66	6	9%
Fetal Total	66	28	42%

Severe

	No.	Deaths	Per Cent
A. P. & Intra P	16	11	68%
P. P.	10	5	50%
Maternal Total	26	16	61%
Fetal Total	26	15	57%

In the Manhattan Maternity Hospital series of cases since 1912 there were 57 cases in the mild group with 4 deaths, giving a mortality of 7 per cent, and 19 severe cases with 8 deaths, a mortality of 42 per cent. As our methods of treatment are practically the same in both hospitals, our results in the mild cases were practically the same. The difference in the severe cases is no doubt due to the fact that at Bellevue Hospital the cases admitted as emergencies are more likely to have been neglected during pregnancy than those admitted to Manhattan Maternity Hospital.

MANHATTAN MATERNITY HOSPITAL

	No. Deliveries, 6,202 1906-1911			No. Deliveries, 21,248 1912-1925		
	No.	Deaths	Per Cent	No.	Deaths	Per Cent
MILD						
A. P. & Intra P.	37	7	18%	43	4	9%
P. P.	4	0	0%	14	0	0%
Maternal Total	41	7	17%	57	4	7%
Fetal Total	41	23	56%	57	16	28%
SEVERE						
A. P. & Intra P.	10	5	50%	17	8	47%
P. P.	3	1	33%	2	0	0%
Maternal Total	13	6	46%	19	8	42%
Fetal Total	13	8	61%	19	11	57%

BLOOD CHEMISTRY

66 Cases Had Complete Report

	No. of Cases	%	Average
N. P. N.	Increased in 34	53%	45 to 55 Mgms.
Uric Acid	Increased in 46	70%	4 to 5%
CO_2	Decreased in 20	30%	36%

No change in Urea, Creatinine and Sugar.

In 66 cases we found complete reports on blood chemistry. We have found that the chemical analysis is of little value in determining the severity of the condition. Many cases developing from pre-eclampsia show no change in blood chemistry. Its value might be considered only as an aid in differentiating a nephritic origin from pre-eclamptic.

MORTALITY FROM COMPLICATIONS

Preventable

	No.	%
Cardiac Failure	7	14%
Broncho-Pneumonia	15	31%
Cardiac Failure and Broncho-Pneumonia	2	4%
Sepsis	2	4%
Ruptured Uterus and P. P. Hemorrhage	2	4%

OTHER COMPLICATIONS

Non-Preventable

	No.	%
Insanity	6	2.7%
Pleurisy	1	0.4%
Mastoiditis	1	0.4%
Placenta Previa	1	0.4%

In the study of the complications we have divided them into preventable and non-preventable. In the preventable we find conditions such as cardiac failure and broncho-pneumonia, which by more careful attention a great deal might have been done to prevent their development. It is important that we should be ready to give cardiac stimulation at the first evidence of cardiac weakness, as shown by increasing pulse rate. We feel that we have done much recently to prevent the development of broncho-pneumonia by maintaining the lateral posture of the patient and avoiding giving fluids by mouth until the patient is fully conscious.

Such complications as sepsis and ruptured uterus are not apt to develop when the conservative method of treatment is carried out.

CLINIC CASES AND EMERGENCY CASES

	No.	%
Clinic cases	19	7%
Emergency cases	203	93%

During the past seven years, of the 14,620 patients delivered on the combined services at Bellevue Hospital, 10,400 had registered and received pre-natal care. At the Manhattan Maternity since 1911 there were approximately 21,000 registered in the pre-natal clinic. Of these 31,400 receiving pre-natal care in both hospitals, 19 developed eclampsia—an incidence of 1 in 1,652 cases. Of these 4 were at Bellevue, an incidence of 1 in 2,600, and 15 at Manhattan, an incidence of 1 in 1,400.

As the organization and the management of the pre-natal clinics is the same in both hospitals, we should expect results in preventing eclampsia to have been more or less equal. Nevertheless, a larger number of cases developed at Manhattan Maternity. This fact was due to our inability to treat the toxemia patients within the hospital owing to lack of accommodations for such cases. At Bellevue we are able to send a large number of cases into the hospital for treatment. The results in such cases are more satisfactory than when treatment must be given at home. During 1925 only 6 cases of toxemia could be treated in the hospital at Manhattan Maternity, while at Bellevue, 40 cases were treated.

Among these cases of eclampsia which developed while pre-natal care was being given, there was one maternal death. In 16 of the 19 cases the eclampsia was of the mild type—in 5 of these there was only one convulsion. The eclampsia developed at term in 17 of these patients. There were two stillbirths and one non-viable death. Thirteen of the cases delivered spontaneously, one was an elective Cæsarean section and five were delivered by low or medium forceps.

If we are to prevent eclampsia we must make sure that when toxemia develops it is treated as promptly and thoroughly as possible. This treatment can best be carried out in the hospital as we cannot depend on the co-operation of these patients in carrying out our instructions in the homes. There was evidence of toxemia in 61 patients.

During the year 1925 we found that 840 patients at the Manhattan Maternity registered in our clinics, made 6,038 visits to the clinic, an average of 5.5 visits per patient. At Bellevue Hospital during the same year at one clinic, 1,125 cases registered and made 4,127 visits to the clinic. Besides the visits to the clinic the patients in both hospitals are visited in their homes by nurses from the Maternity Center Association and Henry Street Settlement.

During 1925 the 840 patients registered at Manhattan Maternity received 3,979 visits in their homes by these nurses. The average period in weeks for registering at the clinic for primipara was 30.7 weeks, and 31.7 weeks for the multipara.

CONCLUSIONS

1. At the present time more attention is given to the treatment of eclampsia than to the prevention.

2. To lessen the incidence and severity of eclampsia a more general understanding of the nature and development of toxemia is necessary.

3. A simplified classification of the so-called "toxemias of pregnancy" would tend to focus attention on the more serious types, namely nephritic and pre-eclamptic types.

4. Prenatal care, if properly carried out, should prevent the development of toxemia in most cases.

5. In cases where toxemia develops despite routine observation of the patient we must recognize the symptoms early to prevent further development.

6. Cases developing despite prenatal care are more prone to occur at the end of pregnancy, and are of a less severe type.

7. If the symptoms do not respond promptly to treatment the patients should have hospital care.

8. The radical treatment increases the mortality rate for both mother and baby.

9. The most favorable results are obtained only when rigid attention is paid to the carrying out of every detail of the treatment.

THE CANCER SITUATION IN THE STATE OF NEW YORK*

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Chairman, New York State Committee of the American Society for the Control of Cancer.

Year	State of New York		State of New York excl. of N. Y. City	
	Total Deaths	Rate per 100,000	Total Deaths	Rate per 100,000
1921	11,163	105.9	5,590	116.7
1922	11,706	109.9	5,761	119.7
1923	12,257	113.9	5,970	123.6
1924	12,791	116.0	6,234	119.9
1925	13,117	117.4	6,345	119.8

The above figures, taken from the annual statistical reports of the New York State Department of Health, show the cancer situation as it exists today in this state. You will notice that the total number of deaths in the state at large and in the state exclusive of New York City has progressively increased since 1921. The death rate per 100,000 population in the state at large has increased from 105.9 in 1921 to 117.4 in 1925. Exclusive of New York City the rate per 100,000 increased until 1923. In 1924 there was a drop and last year the rate remained the same. This apparent drop in the death rate per 100,000 population in 1924 is probably due to the increase in the estimated population in the state outside of New York City.

Can anything be done about this situation? The American Society for the Control of Cancer says that the first thing to do about it is to take cancer out of the realm of the mysterious; bring it out into the middle of the room; and talk about it. This seems to us to be the logical point at which to begin the attack upon this enemy of the human race. The figures already quoted show that the disease is increasing, both in absolute numbers and in proportion to the population. Some observers, notably Hoffman, have even gone so far as to talk about "The Menace of Cancer." It seems to us that an explanation of part of the increase in the deaths from these diseases may be had by remembering that more people are living into the cancer age today than were living into that age 50 years ago. Nevertheless, the disease is apparently definitely increasing and if we are to succeed in reducing the incidence and the mortality, we must seek for a better understanding of it ourselves and we must try to instruct the layman in its manifestations so that by a system of co-operation between the patient and his medical advisor, the former may be gotten into the hands of the latter at the very earliest possible moment after the preliminary signs of malignant disease are discovered.

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* Read at the twelfth annual meeting of the Fifth District Branch of the Medical Society of the State of New York, held at Watertown, October 14th, 1926.

The beginning of the discussion, it seems to me, ought to take into consideration only those facts about cancer concerning which there can be no serious difference of opinion. In the first place, the cause of cancer is not known. We might as well admit this frankly as to try to conceal it. In spite of the work of Gye and Barnard, the cause of malignant disease is not known, although there are countless theories to explain it, none of which stands the test of scientific inquiry. Second, cancer is not a communicable disease. There is no case on record in medical literature of a doctor or a nurse attending a cancer patient who has sustained a skin injury which has been followed by the development of a malignant tumor at the site of that injury. The recent case reported in the French Annals of Pathological and Normal Anatomy, has been carefully discussed editorially in the *Journal of the American Medical Association* for August 7th, and its fallacies pointed out. Third, cancer is not a constitutional or blood disease and there is no intention on the part of any medical man who makes a diagnosis of cancer to imply that the patient himself, or any of his ancestors, had ever lived an immoral life. In other words, cancer and syphilis have no relation whatever. Fourth, the American Society for the Control of Cancer is also on record as being of the opinion that cancer in the human family is not hereditary. We are well aware of the important and interesting studies by Maud Slye and others, and we recognize the fact that in the laboratory, strains of mice can be produced in which 100 per cent of cancer can be developed. But in the human family the conditions of reproduction present important differences from those in laboratory animals. Humans are an extremely hybrid race and mating is not done in the same manner that it is conducted in the laboratory. Furthermore, there are very many people who have an unreasoning dread of cancer because some member of their family has died of it. These people live an extremely disturbed life. And we think that it is perfectly justifiable to assure such people that cancer is not hereditary. In other words, in the present state of our knowledge it is just as likely that the children of a mother who has died of cancer will not have cancer, as it is that they will have cancer. Fifth, most laymen and many physicians are of the opinion that a growth which is not painless cannot be malignant. This is not so. At the beginning cancer is almost never painful and it is only when the growth has developed so that the sensory nerve filaments become involved in the growth and are subjected to pressure that pain is experienced.

Cancer usually begins as a small, local, painless growth which is capable of complete removal and cure. If the patient waits until the growth has spread to the nearest lymphnodes, the chances for complete removal and cure are very much reduced, probably by 50 per cent, possibly by more. If the individual waits until the disease has spread beyond the nearest lymphnodes to those farther removed the disease becomes chronic, complicated by sepsis, and incurable. Cancer usually develops at the site of chronic irritation; on the lip of the pipe smoker, on the tongue of the individual with badly fittng artificial teeth or decayed, ragged teeth; at the pyloric end of the stomach in cases of chronic indigestion, in the rectum in cases of chronic inflamed hemorrhoids, in the uterus in cases of old cervical lacerations with low grade inflammation lasting for several years, in the breast after chronic cystic mastitis, in the skin in cases of senile keratosis and cases of pigmented moles. These lesions are those that we know as precancerous lesions and patients presenting them should always be looked upon as possible cancer patients. Not everyone who has these precancerous lesions develops cancer. But a woman with a lump in her breast should not be told to wait a month to see if the lump grows, nor to wait until it begins to bleed, before having that lump removed and examined microscopically. The patient presenting these lesions should be considered seriously and with care and every effort made to get rid of the disease before it becomes cancerous.

A physician once said that he believed nothing could be done to cure cancer; that he had sent patients to the surgeon who had removed the growths and the patients had died; that he had sent patients to the radiologist for deep X-ray therapy and the patients had died; that he had sent patients for radium treatment and the patients had died. When asked how soon he sent his patients for those treatments, he said as soon as he was sure the disease was cancer. When one can be sure that a growth is cancer, it is already too late to expect to get a cure by any of these means, at least in the state of present development of our therapeutic measures. So, any sore in any part of the body that does not heal readily; any unusual discharge from any of the hollow cavities of the body, particularly if it is bloody; every lump in the female breast; persistent indigestion with loss of weight after middle life; warty growths or moles, particularly those subject to constant irritation, should always be considered potentially malignant and so treated. These conditions do not always mean cancer, but they demand serious consideration from the cancer viewpoint. The advertising quack and the patent medicine which claims to be able to cure cancer without the use of the knife are menaces to the solution of the cancer problem. Every effort should be made to discourage the activities of those engaged in deluding potential cancer patients into undertaking treatment by their methods.

The American Society for the Control of Cancer is of the opinion that if these facts can be impressed upon the laity and the profession, that the number of cases of cancer and the deaths from cancer may be reduced. We do not believe that we can abolish cancer from the human family, but we feel sure that the number of people succumbing to these diseases, particularly in the fifth and sixth decades, ought to be materially reduced.

The New York State Committee of the American Society for the Control of Cancer, at its annual meeting in December, 1925, voted to undertake an educational program in the State of New York, outside of Metropolitan New York, for the next three years, with the hope that, by impressing the facts just stated upon the profession and the laity, it might be followed by a diminution both in the total number of deaths and in the death rate. To this end it is proposed to establish a central office for the dissemination of information to all groups of people who desire to learn the facts. It is desired that an active committee be organized in every county of the state for the purpose of presenting these facts to those who desire to learn of them.

At the present time the majority of patients presenting themselves for operation at the various clinics in the state are inoperable when first seen. These patients should be seen before their growths become inoperable, and in order to produce this result publicity is one of the strongest methods to employ. In a paper on carcinoma of the right segement of the colon by Mayo and Hendricks (*Ann. Surg.*, 1926, 83: 357) the authors say: "On account of the great interest manifested by the public in cancer and in fact in everything pertaining to the subject of disease and health, diagnosis is made early and operations are consequently more successful on external cancers that can be observed or felt by the physician or by the patient himself. This shows the advantage of the public discussions on cancer, cancer week talks, and the effectiveness of newspapers in aiding in this work of education. The surgical treatment of cancer is now much more effective than it was twenty years ago; the operations are much more thorough; and fixed and locally advanced growths involving the primary and secondary lymphatics and those with contact growths or metastases are treated by radium or other nonsurgical measures, thus reducing unnecessary surgical mortality."

The State Committee hopes to be able to list the facilities in the state for the diagnosis and treatment of cancer, which at present are believed to be entirely inadequate, hoping that the information thus obtained will improve the situation in this respect. The establishment of cancer clinics under suitable auspices is a method which has the approval of many of the students of the problem. In July, 1924, the State Committee undertook the establishment of such a clinic in the City of Rochester as an experiment. It was desired to determine first, whether people would go to a cancer clinic; second, what percentage of patients who presented themselves at such a clinic actually had malignant disease; and third, what it would cost to conduct such a clinic. The clinic has, from the first, been conducted exclusively as an advisory and diagnostic enterprise, the patients seen being referred immediately to their own family physicians for the direction of whatever form of treatment was deemed advisable. The clinic completed its second year in July. It is open once a week. Any person who comes is examined and an endeavor made to reach a working conclusion as to the nature of the symptoms presented. Two hundred and eighty-five individuals came to the clinic during that period. Fourteen and one-half per cent of these individuals actually had malignant disease. This percentage checks very well with the experience of the public clinics held in Detroit in the eleven hospitals between January 25th and January 30th, 1926. Two thousand two hundred and forty two patients were examined in these hospitals, 21.3 per cent of whom actually had cancer (*Jour. Amer. Med. Assoc.*, 1926, 87: 347). People will come to a cancer clinic; they want to know whether or not they have cancer, and every effort ought to be made by us to give them a carefully thought out opinion. Such a clinic can be held in any community in the State of New York in which it seems desirable and practical, and in which the members of the profession desire to make a contribution to the solution of the cancer problem. Such a clinic can be operated for about $350.00 per year.

In September of this year, the American Society for the Control of Cancer conducted a symposium at Lake Mohonk, to which one hundred of the most active students of the cancer problem, from all parts of the United States and Europe were invited. The outstanding accomplishment of this conference was the agreement by those present upon a statement which summarizes the basic knowledge of cancer and other malignant tumors as it exists today. While this knowledge is admittedly incomplete, the summary is considered as a satisfactory foundation upon which to proceed in an attack on the steadily increasing death rate. It is as follows:

"Although the present state of knowledge of cancer is not sufficient to permit the formulation of such procedures for the suppression of this malady as have been successfully employed for the suppression of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect. Although the causation of cancer is not completely understood, it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that because one's parent or parents or other members of the family have suffered from cancer, cancer will necessarily appear in other persons of the same or succeeding generation.

"The control of cancer, so far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of patient and physician. Persons who have cancer must apply to competent physicians at a sufficiently early stage of the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure. Cancer in most parts of the body can be discovered in a very early stage, and if cases are treated properly the prospect for permanent cure is good.

"The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

"The public must be taught the earliest danger signals of cancer, which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be present.

"Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer and learn the signs in order to diagnose the cases of cancer which come to them.

"Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases, but of the more obscure and difficult ones.

"There is much that medical men can do in the prevention of cancer in the detection of early cases in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

"Dentists can help in the control of cancer by informing themselves about the known causes of cancer of the buccal cavity, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discover to physicians skilled in the treatment of cancer in this location.

"It may be doubtful whether some dentists fully realize the help which can be obtained from X-ray photographs which reveal not only the state of the teeth but the conditions of the bone surrounding them.

"Medical students should be instructed in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

"The most reliable forms of treatment, and, in fact the only ones thus far justified by experience and observations, depend upon surgery, radium and X-rays.

"Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

"Efforts towards the control of cancer should be made in two principal directions, the promotion of research in order to increase the existent knowledge of the subject and the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed to unnecessary delay."

The New York State Committee calls for volunteers for the work here outlined. Members of the medical profession can assist by accepting membership on the county committees and by agreeing to give practical talks to groups of lay people concerning the various forms of cancer. The Central office will furnish such volunteers with a lecture outline from which the talks may be prepared. It does not insist that those who give these talks shall adhere strictly to the points made in this statement. But it does request them, if they believe certain of the statements require modification, that they indicate definitely that the modifications are the speaker's personal opinions and not the opinions of the American Society for the Control of Cancer.

In 1900 the deaths from tuberculosis per 100,000 population in the registration area of the United States was 201.9, in 1923 it was 93.6. In other words, in 23 years 108 lives out of every 100,000 people in the United States have been saved from destruction by tuberculosis. This result has been accomplished very largely by teaching people the facts about tuberculosis. May we not hope to produce a somewhat similar result if we undertake to teach the people the facts about cancer?

INDICATIONS FOR THE RADICAL FRONTAL SINUS OPERATION WITH A REPORT OF CASES*

By **RICHARD TRAVIS ATKINS, M.D., NEW YORK CITY**

THIS paper is the result of a review of the histories of forty-two patients, on which the radical frontal sinus operation was personally performed. Most of these cases occurred on the Oto-laryngological Services of Bellevue Hospital and the New York Eye and Ear Infirmary.

The term radical frontal sinus operation, as used in this paper, implies the Killian operation, which has for its object the obliteration of the frontal sinus and removal of the adjacent ethmoidal cells.

The cases have been arranged in the following groups:—

Group I—Operation urgent because of alarming symptoms. This group includes the cases complicated by intra-cranial or orbital involvement. As a rule these are acute cases of very marked virulence or acute exacerbations of chronic cases in which the bony walls of the frontal sinus have been softened or necrosed by prolonged suppuration.

Group II—Operation not urgent, but the indication positive. This group includes cases due to:

1. Failure of intranasal treatment and operative measures to relieve (a) distressing symptoms such as headache, local tenderness, recurring edema of the upper eyelid; neuralgic pain; fever and discharge (b) frequent acute exacerbations which incapacitate the patient; (c) persistent foul discharge.
2. Fistula.
3. Recurrence following previous operations.
4. Cysts and Mucoceles.

This group is made up of chronic cases and includes the majority operated on.

Intranasal measures ordinarily fail because of the anatomical structure of the frontal sinus. It is not always a simple cavity which is easily drained. Incomplete septa are often found which divide and subdivide the frontal sinus into compartments. Extensive recess formation is also found extending back over the orbit, and this may be divided into smaller recesses by septa, or it may be shut off from the main cavity by septa uniting the anterior and posterior walls. Mention should also be made of duplication of the frontal sinus and frontal bullae.

Recurrences following a previous operation are usually due to a reinfection, where there has been a failure of obliteration, or an incomplete operation.

It is in this group of cases that the X-ray is particularly valuable and no case should be operated on immediately because of intracranial com-

Group III—Operation exploratory. Doubtful indications because of uncertain diagnosis. This group includes new growths, orbital tumors simulating frontal sinus involvement and frontal sinusitis as a possible source of focal infection.

In the series of forty-two cases, six were operated on immediately because of intracanial complications. There were five brain abcesses, one of which was accompanied with cavernous thrombosis, and one meningitis. All of the cases also had orbital involvement consisting of exophthalmos, chemosis of the ocular conjunctiva, limitation of movement or fixation of the eyeball and swelling of the lids. Three were acute cases with no history of previous attacks, and three were acute exacerbations of a chronic process. All six cases complained of severe headache and had a high temperature. Three cases had a stiff neck and a positive Kernig. Three cases showed fundus changes and one had a positive blood culture. There was one recovery.

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* Read before the Annual Meeting of the Medical Society of the State of New York, at New York, March 30, 1926.

The most interesting case in this group was an Italian girl, nine years of age, whose trouble began five days prior to admission to Bellevue Hospital with "a cold in the head." This was soon followed by fever, severe headache, pain in the left eye and vomiting. Later the eye became swollen. She was suddenly seized with a general convulsion, followed by a semi-stupor, in which condition she was brought to the hospital.

On admission there was a 103° temperature, some rigidity of the neck, a positive Babinski on the right and a suspicious Kernig.

The left eye showed exophthalmos, swelling and edema of the lids, and chemosis of the ocular conjunctiva.

There was a thin watery purulent discharge from the nose and marked edema of the mucous membrane on both sides.

While in the ward the patient had a convulsion limited to the left side, followed by a left-sided hemiplegia.

An immediate operation was performed consisting of a bilateral radical frontal. Both sinuses were filled with free pus under pressure, and the posterior walls were intact. Because of the intracranial symptoms, the posterior walls were removed and a thick creamy pus exuded from the right side. The dura was covered with a plastic exudate and the tension was somewhat increased. A small fistulous opening was found in the dura on the right side which was enlarged and a small subdural collection of pus evacuated.

The plastic exudate was very extensive covering the right frontal and extending to the temporal region, and this was uncovered.

The ethmoids were drained anteriorily through the usual ethmoidal incision.

Immediately following the operation the patient seemed brighter and there was no return of the convulsive seizures, but the temperature continued high and an exophthalmos soon developed on the right side. Both blood and spinal fluid were positive for hemolytic staphlococcus aureus and culture from the nose showed the same organism.

Three transfusions were given with no beneficial effect and the patient died ten days after admission.

This unfortunate case was undoubtedly one of primary infection of the fronto-ethmoidal labyrinth by the hemolytic staphylococcus aureus which rapidly spread through the lymph and venous channels to the meninges and cavernous sinus.

Another interesting case, a boy, age 17, was admitted to the New York Eye and Ear Infirmary with the following history: Severe "cold in the head" two weeks before admission, which was followed by sharp shooting pains through the left eye and left side of the head. Later there developed swelling of the soft tissues about the eye which progressed rapidly causing the eye to bulge forward. He gave a history of frequent colds, and had received occasional treatment for sinusitis.

Examination showed edematous swelling of both lids on the left side, with the eye pushed downward and outward. There was marked chemosis of the bulbar conjunctiva. The eye movements were limited and there was a diplopia in all fields, especially when looking down. Fundus examination was negative.

The nose showed pus in the left middle meatus with considerable swelling of the middle turbinate. Antrum puncture revealed considerable thick, creamy pus.

Temperature 102° F. on admission.

X-ray examination by Dr. Dixon showed cloudiness of all the sinuses on the left side.

Pus from the left antrum showed the presence of long chain streptococci.

Operation—Through an external ethmoidal incision a large quantity of creamy pus was evacuated and a drain inserted. This operation was done with the idea of affording drainage of the acute process and later performing a more radical operation.

The swelling rapidly subsided, the headache ceased and the temperature dropped to normal.

Four days later, however, there was a sudden rise of temperature to 104°, the headache returned and the patient became drowsy. There was some rigidity of the neck and a positive Kernig.

Another operation was immediately performed and this time the frontal sinus was opened and it was found filled with pus. The posterior wall was necrotic and a fistula found which led to the brain. About ½ ounce of foul smelling pus was evacuated. Tube drainage was established, and in a month's time the wound was healed and the patient discharged. It is now one year since the operation and the patient has remained entirely well.

This was apparently a chronic frontal lobe abscess which had been lighted up by an acute exacerbation of a chronic frontal sinusitis, and, as in all frontal lobe abscesses, the symptoms were vague.

There were eleven cases operated on because of the urgency of orbital complications. All showed swelling and edema of the lids, exophthalmos, chemosis, and in one case, there was gangrene of the conjunctiva. There was limitation of movement of the eyeball in six. All showed some temperature reaction, and in five cases it was septic-like in character; one case later developed a metastatic abscess of the hip. Headache and severe pain were common symptoms. Necrosis of bone occurred in all but two cases, involving principally the floor of the frontal sinus, and in one case, I was obliged to remove a large part of the floor of the orbit because of necrosis. The anterior and posterior walls were both involved in one case, which disclosed an epidural abscess. Ethmoidal and antral involvement occurred in all of the cases.

Seven were acute in onset (less than three weeks) and four were acute exacerbations of a chronic process.

One case, an Italian boy, 19 years of age, was admitted to the New York Eye and Ear Infirmary with the history of headache and nasal discharge for two weeks, followed by swelling of the left eyelids, left side of the face, protrusion of the eye, high temperature, chills and delirium.

Examination of the nose showed a fetid, purulent discharge on the left side, and occlusion of the fossa by a bleeding, friable mucous membrane.

At operation the frontal sinus was found filled with pus and edematous mucous membrane. The ethmoids had been destroyed and were replaced by a soft friable granulation tissue which bled freely. The maxillary antrum was completely filled with a mass of tissue which proved to be a myelogenous sarcoma.

The sinus operation controlled the local suppurative condition, and after receiving the pathologist's report as to the nature of the growth, I resected the upper jaw. There was a recurrence, however, and the patient died three months later.

This was undoubtedly an inoperable case, but the secondary infection of the frontal and ethmoids obscured the true nature of the process which, in all probability, originated in the maxillary antrum.

In the second group there were ten cases operated on because of long standing suppuration, associated with frontal headache, tenderness, and in some cases swelling and edema of the soft parts about the orbit. The histories varied from eight months to twenty-five years.

All were incapacitated for work during the attacks and were left in a weakened condition after the acute stage had passed. In some cases the headache was almost continuous.

All had intranasal treatment which did not relieve or prevent recurrences.

There were four cases which showed fistula or sinus formations. Two followed an incision of a localized abscess about the orbit, and two followed the spontaneous rupture of an abscess. All of these cases had well marked signs and symptoms of frontal sinus involvement, and on probing, necrotic bone could be felt.

There were four cases operated on secondarily, because of failure of the primary operation to affect a cure. In all of these cases the indications were very apparent.

X-ray examination in most of the cases, in the second group, demonstrated why the cases did not get well.

One case of this group, a male, 39 years of age, gave a history of frontal sinus attacks over a period of seven years. Various intranasal operations had been performed consisting of removal of the middle turbinate, curretage of the anterior ethmoid cells and a rasp operation for enlarging the nasofrontal duct. This was followed by dense cicatrization so that it was impossible to probe or catheterize the frontal sinus. Every month or two the patient suffered with acute frontal pain and a slight edematous swelling, about the size of a dime, very tender to touch, over the lower and inner angle of the frontal sinus on the right side. This entirely disappeared with the pain, after a week's duration.

Operation revealed a small frontal sinus, with a deep orbital recess and a necrotic anterior wall immediately under the swelling.

Another case typical of this group, a male, 27 years of age, gave a history of recurrent attacks of frontal sinusitis over a period of ten years. Intranasal operations consisting of a submucous resection, removal of the anterior end of the middle turbinate and curretage of the anterior ethmoids failed to relieve the condition. The attacks were accompanied by temperature and were very exhausting. X-ray examination by Dr. Dixon showed a very cloudy left frontal and antrum. In the left frontal there was an area in the middle suggesting a semi-solid mass.

Operation revealed a large frontal, the anterior wall of which was necrotic over a small area, filled with free pus and a thick gelatinous substance. The mucous membrane was very edematous, entirely occluding the natural opening.

Another case, a male, 52 years of age, gave a history of frontal headaches over a period of twenty-five years. All of the sinuses had at one time or another been involved, and intranasal treatment had been fairly successful. Finally the right frontal became involved, following a "bad cold" and did not subside. Catheterization was easily accomplished, but irrigations failed to give relief. X-ray examination by Dr. Dixon showed a cell at the outer angle which was especially cloudy and a deep orbital recess.

Operation immediately relieved the condition through drainage of a blocked off cell near the external angular process.

In the third group there were six cases, especially interesting because of the doubtful nature of the pathology. Operation was, therefore, exploratory.

The first case, male, 37, had a marked exophthalmos on the left side. The eye was pushed downward and outward. There was no inflammatory condition of the soft parts, but a small, soft, tender swelling at the inner and upper orbital wall.

Examination of the nose showed a deviation of the septum to the right, no discharge, an enlarged middle turbinate on the left, with a bulging inward of the bulba underneath. Transillumination showed a dark left frontal and antrum. Antrum puncture was negative.

The patient gave a history of pain in the left frontal region three months before, which lasted about an hour, but no recurrence. There was no history of rhinitis. Three weeks before examination the left eye began to protrude and this gradually increased.

X-ray examination by Dr. Dixon showed the frontals to be of moderate size, right clear, left cloudy. There was a fault in the orbital ridge at the inner extremity. There was a thickening of the ethmoids and antra, particularly on the left side.

The Wassermann reaction was negative.

Operation.—The frontal sinus was filled with edematous membrane and pus. The lower inner angle was necrotic, back of which there was a walled-off collection of thick muco-pus. This proved to be sterile.

Because of the history and intranasal findings of this case, the possibility of a new growth was considered.

The second case was a male, 60 years of age, who had a marked exophthalmos on the right side. This had followed "a severe cold in the head" eight months before. The patient complained of frontal pain, headache, and a discharge from the right side of the nose.

Transillumination showed both frontals and right antrum dark. Right antrum puncture revealed considerable muco-pus.

On examination of the nose there was muco-pus on the floor of the right fossa, but a very sharp deviation of the cartilaginous septum prevented inspection, beyond the entrance. The left side was negative.

X-ray examination was made by Dr. Dixon and the following is his report: Right frontal sinus is very large, extending nearly to the outer angle. The left is smaller. They are both very cloudy, in fact, seem occluded. The left ethmoids and antrum are not very clear. The lateral plates show all the sinus regions cloudy. The sella turcica is quite deep and the dorsum looks suspicious of erosion, especially in front, but the clinoids are in situ and their outlines seem undisturbed, though the curve of the posterior comes well forward. No outline of a tumor can be made out in the orbit, but the plates give the impression of a tumor rather than supurative disease.

Operation.—Ether anaesthesia. Submucous resection, after which the right nasal fossa was freely exposed. The mucous membrane was markedly engorged and from the lateral wall a mass of granulation like tissue protruded, which almost filled the fossa. Radical frontal. The anterior wall was soft and the interior of the sinus was filled with a granulating mass of tissue which was broken down. The floor was necrotic and the ethmoids were filled with a like material. All the structures bled freely.

Examination of the tissue removed showed it to be an epithelioma.

The patient developed pneumonia and died one week following the operation.

The true nature of the disease in this case was somewhat obscured by a secondary infection.

The third case presented obscure intracranial symptoms and was admitted to the hospital following an attack of facial erysipelas. The patient was a male, 31 years of age, and complained of pain in the right eye, frontal headache and a foul smelling discharge from the right side of the nose. Right sided antrum puncture revealed a softened naso-antral wall and considerable broken down foul smelling pus.

Eye examination showed an episcleral injection on the right side; slight exophthalmos, slight limination of ocular movement and diplopia. The fundus showed veins distended and the discs slightly blurred.

Soon after admission to the ward, the patient vomited and the headache became more severe.

A lumbar puncture was performed and a clear fluid obtained under increased pressure, with a cell count of 50.

Neurological examination was made by Dr. Foster Kennedy, with the following report: Right sided facial weakness, peripheral type. Diminished abdominal and knee jerks on the left side. Questionable plantar response. Pulse 52, vomiting. All evidence points to intracranial abscess, but cannot localize with confidence. Do not believe exploration is indicated at this time.

Because of these alarming symptoms it was decided to explore the frontal and ethmoids on the right side.

Operation.—The frontal was filled with pus and polypoid mucous membrane. There was no defect of the inner wall. A large area of dura was exposed and it appeared normal. The ethmoids were exenterated and the anterior wall of the sphenoid removed. The sphenoid was filled with a soft mass of friable tissue, but unfortunately no microscopical examination was made.

After the operation, the vomiting, dizziness and headache disappeared entirely. Subsequent lumbar puncture showed some increase in pressure, but less than before, clear, cell count 65, many lymphocytes, no organisms.

The improvement in the patient's condition lasted for about two weeks and then the headache and vomiting returned. Lumbar puncture entirely relieved him. At this time both optic discs were elevated about three diapters.

X-ray examination showed the presence of a hypophyseal tumor, and but for the X-ray findings this patient would probably have been explored for a brain abscess. At the time of the operation the tumor had probably broken through the floor of the sella into the sphenoid and removal of the anterior wall relieved the intracranial pressure.

After the wound had healed, the patient left the hospital at his own request, promising to return for observation. Nothing further is known of his history.

Another case of this group was obscured by an accompanying syphilic infection. There was a marked exophthalmos which anti-syphilitic treatment failed to relieve. Operation revealed a chronic fronto-ethmoidal suppurative involvement, and it was followed by a complete recovery of the local condition.

The fifth case was referred from the eye service because of an iritis that had not responded to treatment. All foci of infection had been eliminated with the exception of a chronic frontal sinusitis. The radical operation was performed and the iritis disappeared.

Conclusion.—When establishing the indications for an operative procedure on the frontal sinus, the following must be considered:

1. The urgency of the symptoms. In a small proportion of cases, due to a virulent infection, complications occur in a very short time, which necessitate an immediate operation.

2. The nature of the sinus involvement. If there has been some previous operation which has failed, or if there is a fistula leading into the frontal sinus, the indication is plain.

Ninety-five per cent of all frontal sinus cases are relieved of their distressing symptoms without the radical operation, so that leaves a small proportion that need special study as to the indication for the operation.

X-ray examination helps us to determine the topography of the frontal sinus and very often tells us why our patients are not getting well. Frontals with many recesses, marked horizontal development and other abnormalities cannot be drained successfully through the nose. These cases very often come to operation.

3. The condition of the nose. Have we been thorough enough in our intranasal treatment? It is a question largely of drainage.

4. The age, sex, social standing, residence and occupation must be taken into consideration before advising an external operation. Prolonged frequent treatments are impossible in some cases, and a radical operation is the easiest and most logical way out of the difficulty.

The question of deformity is frequently raised, but this is of minor importance when we consider the dangers of non-operative interference in these cases, and with the newer methods of plastic surgery we may hope soon to overcome this objection.

Since this paper was written, I operated on a young man who came to the hospital with a short history of pain in and about the left eye and nasal discharge. The temperature on admission was 106° F. There was a slight edema of the upper lid. W.B.C. 16,000, 94 per cent polynuclears. The eye grounds showed a slight blurring of the discs on the nasal side. Left antrum puncture revealed muco-pus. X-ray showed a pan-sinusitis on the left side. Blood culture was taken and in twenty-four hours it was reported positive for hemolytic-streplococci, and the patient during this time had developed an arthritis involving the left ankle.

Operation.—Pus under pressure in the frontal and ethmoids. There was a large deep orbital recess also filled with pus under pressure. The wounds were packed and left open.

This case belongs to the first group of indications.

THE TREATMENT OF AEROGENES CAPSULATUS (OR GAS BACILLUS), INFECTION IN CIVIL LIFE*

By JOSEPH TENOPYR, M.D., BROOKLYN, N. Y.
From the Surgical Division of the Kings County Hospital

THE bacillus of gas infection was discovered by Welch and Nuttall in 1892. It is also commonly called the Welch bacillus; another name commonly used is the gas bacillus. I do not intend to burden you with an extensive review of the literature. It is the intent of this paper to call attention to the modern treatment of wounds infected with the Welch bacillus.

The first delusion which I wish to dispel is that the bacillus aerogenes capsulatus infection of wounds is a rare disease of civil life. That the disease is common is self-evident from the series of cases on which this paper is based. In eight periods of four months each, we have treated twenty-four cases at the Kings County Hospital.

Before we enter upon the question of treatment of this disease, it is necessary that we shall have a very clear mental picture of the beginning symptoms of this disease, because the success of the treatment depends upon the early diagnosis. The diagnosis in order to save life and limb must be made in the first twenty-four hours after injury in the vast majority of cases. There is a small number of cases in which the diagnosis may be delayed because of the non-virulence of the bacteria and the slowness of the development of the signs and symptoms. Doubtful cases must be carefully followed until the diagnosis of Welch bacillus is excluded or confirmed. These cases which at first appear to be relatively benign may assume a virulent course. Immediately upon suspicion of the diagnosis active treatment must be instituted.

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* Read before the Clinical and Surgical Association of Massachusetts, October 8, 1926.

The patient comes to the hospital with a wound which is contaminated with street dirt, or it may be a relatively clean gunshot wound. Wounds of the extremities may be, and often are, associated with fractures. The compound fracture is reduced and almost immediately the temperature begins to rise. This sudden rise in temperature should make one bear in mind the possibility of gas bacillus infection.

There are two very suggestive symptoms which appear very early. These are: first, pain which is disproportionate to the amount of injury, and second, acuteness of intellect. At the end of twenty-four hours there is a dirty greenish gray membrane over the area of the wound. The odor is characteristic and can be detected upon entering the room of the patient. If the wound has been sewed up, the edges will be red, and there will be slight bronzing of the skin if the affected area is viewed in a good light. The dressings will be stained with a reddish tinged serum. There is no evidence of pus on the dressing. The bronzing of the skin usually precedes the crepitation which occurs when the tissues become infiltrated with gas and gangrene follows.

In order to prevent gas bacillus infection in wounds, we have made it a practise to take all cases of contaminated lacerated wounds to the operating room. Under general anaesthesia a debridement of the wound is performed. The term debridement has to my mind the suggestion that this form of treatment of wounds originated during the War. This is far from being so. The debridement of wounds was described by Dr. Martin Tinker of Ithaca, New York, in 1909, and practised by us at the Kings County Hospital from that time on.

The method consists of placing sterile oil into the wound and sterile compresses saturated with olive oil over the wound; then the skin is thoroughly cleansed with tincture of green soap followed by alcohol, ether and benzine; and then the skin is painted with tincture of iodine. The wound is then cleaned thoroughly with benzine, washing out all the olive oil. The wound is then carefully treated surgically, removing all the macerated and bruised tissue. If one feels reasonably certain that all the infected tissue is removed, the wound is closed without drainage.

Every wound so treated must be carefully watched for the early symptoms which I have described to prevent the calamity of losing a limb or even the tragedy of losing life. For when there is extensive evidence of gangrene, which I have not particularly stressed as a symptom, it is impossible to prevent the loss of limb and our efforts are then concentrated upon saving life.

The serum treatment of gas bacillus infection is based upon the research work of Dr. Bull and Ida Pritchard of the Rockefeller Institute for Medical Research. Dr. Bull and his co-worker have discovered an exotoxin which circulates in the blood, causing a hemolysis of red cells. In their experimental work they found no bacteria circulating in the blood except in the terminal stages of the infection just before death. They developed an antitoxin serum which stopped the destruction of the tissues locally, and neutralized the toxin in the blood and stopped the destruction of the red cells. This serum has been used in the Kings County Hospital since 1917. Dr. Bull had his first successful case with me in that institution. Since that time we have been able to minimize the loss of extremities and have reduced the tragedies incident to this infection.

In our series of twenty-four cases we have learned that it is necessary to suspect gas bacillus infection very early in every case of a lacerated wound with or without fracture. We bent every effort to eliminate the possibility of this infection from the moment of the patient's admission to the hospital. When the debridement of the wound is performed, an anaerobic culture is made by placing a piece of the infected tissue into the bottom of a sterile test tube; and over this is poured from another test tube a quantity of melted agar. This is incubated immediately; and sometimes within three hours there is evidence of gas formation in the culture if the infection is present. The agar is disintegrated showing the formation of gas. This material for cultures is constantly kept in the operating room.

Another aid in the early diagnosis which we use is the X-ray examination; and bubbles of gas are found in the tissues very often six hours after injury.

The early clinical signs and symptoms, and the early utilization of laboratory investigation both pathological and roentological, have enabled us to institute serum treatment early. Immediately upon the diagnosis of the Welch bacillus infection we give the patient 200 c.c. of the tetanus perfringens antitoxin serum. This is repeated anywhere from six to twenty-four hours. If the wound had been closed by sutures, the sutures are removed, and wet hydrogen peroxide dressings are applied. Usually after 400 c.c. of the serum there is a drop in temperature and a decrease in the pulse rate; the gangrenous process has ceased to spread; and the patient has lost the septic appearance; and will generally tell you that he is feeling better—that is to say, the patient has improved clinically. If the gangrenous process has spread to such a point that amputation is necessary, it should be done at this time without delay, because the complication most to be feared and most likely to occur is hemorrhage.

The experimental observation of hemolysis made by Bull and Pritchard in animals is confirmed by our clinical experience in the matter of the destruction of the red cells. In most of our cases a marked anemia was indicated after the first twenty-four hours following injury by a blood count of three million red cells or less. One of the indications for repeating the dose of serum is the continuation of the fall of the red cells. If the red cells become constant in number, or begin to increase in number, we feel reasonably sure that the hemolytic toxin is under control.

Bearing in mind the destruction of red cells, it naturally follows that blood transfusions are indicated and should be resorted to early because there are other pathogenic organisms to which the patient may succumb and which are not affected by the serum. So it has become our practise that as soon as diagnosis of gas bacillus infection is made, to have the patient typed with some of his relatives with a view of blood transfusion.

In our series of twenty-four cases there were seven deaths which yielded a mortality of 29 per cent. In the seventeen surviving cases there were seven amputations. When these are analyzed one will see that five of these amputations were due to a delay of over twenty-four hours in the administration of the serum. Ten cases, or 42 per cent, recovered without amputation. The analysis of the seven deaths shows that they died from two to forty-one days.

Case 1—J. A., male, age 23 years. Received a gunshot wound of the shoulder. He did not receive the serum until the third day. This is an example where the toxin had apparently weakened the wall of a blood vessel, and even though the process had ceased to spread, the damaged vessel gave way and the secondary hemorrhage occurred on the ninth day. Over a period of two days he recived 680 c.c. of the serum intravenously. This case also teaches the lesson that secondary hemorrhage must be constantly kept in mind. His blood count was 2,934,000 and a hemoglobin of 60 per cent.

Case 2.—M. P., female, age 51 years, sustained injury to heel due to a firecracker explosion; the os calcis was fractured; the wound was thoroughly cleaned under general anaesthesia on admission. No culture was taken, and serum was not given until the second day. The patient died shortly after the administration of 200 c.c. of serum. There was difficulty in typing this patient. The blood count was 3,470,000, and hemoglobin was 50 per cent.

Case 3.—J. F., male, age 16 years, had a compound fracture of tibia. 200 c.c. of serum was administered within 10 hours after admission. He received 900 c.c. of the serum. He came to the hospital in extreme shock and died on the third day of pneumonia. On Sept. 28, his blood count was 3,712,000 and hemoglobin 60 per cent. On Sept. 30, his blood count was 3,840,000 and hemoglobin 70 per cent.

Case 4.—L. L., female, age 27 years. An abortion had been attempted four days before. 200 c.c. of serum was administered within 20 hours after admission to hospital. She lived 30 hours in the hospital, the blood count was not taken.

Case 5.—D. F., female, age 58 years, had fractures of the right ulna and radius and of the left tibia, and a lacerated wound of the left knee. She died from broncho-pneumonia, 41 days after admission. 400 c.c. of serum was given second day, and an additional 200 c.c. of serum was administered two days later. The blood count was 4,240,000 and hemoglobin 85 per cent.

Case 6.—F. N., male, age 7 years; he had a fracture of the left femur, a lacerated left foot, laceration of the left kidney, and general peritonitis. 200 c.c. of serum was given within 22 hours after admission. Next day an additional 100 c.c. was administered. The blood count was 2,688,000 and the hemoglobin 60 per cent.

Case 7.—G. M., male, age 46 years. Came to the hospital four days after injury with a compound fracture of the radius and ulna; the forearm and lower part of upper arm were gangrenous, and the tissue crepitated anteriorly to the nipple line and posteriorly to the inner border of the scapula. A shoulder disarticulation was performed. 200 c.c. of serum was administered within 22 hours after admission to the hospital. Next day 400 c.c. more of the serum were given. On the following day 300 c.c. more of the serum were given. Patient died on the third day.

On close study of these cases it is quite evident that four did not receive their serum until thirty-six hours or more after injury. One case was cured of gas bacillus infection, but died 41 days later of broncho-pneumonia. One case received serum ten hours after admission, but never rallied from his shock. Myocarditis and pneumonia complicated the condition. One case was complicated by laceration of the kidney and peritonitis.

Conclusions

Diagnosis can and should be made early both clinically and bacteriologically and by X-ray.

This study suggests the following rules:

1. All lacerated wounds to undergo thorough debridement immediately on admission to the hospital.
2. Anaerobic culture to be taken at time of debridement.
3. X-ray examination to be made within four hours after injury.
4. Serum treatment in full dosage to be given early intravenously; not less than 200 c.c.

If these rules are followed gas bacillus will be robbed of its terrors to the medical profession, and prevent the calamities and tragedies incident to this infection.

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NEW YEAR'S GREETINGS

The message of the physician is always one of Peace and Good Will to Men, for that is what he brings to those who "Sit in darkness and in the shadow of Death."

Those who are engaged in this noble work form a brotherhood whose members are bound together by a peculiar tie of intimacy and fellowship. Gone forever are the days of strife and discord among physicians; and now the doctor is the friend and companion of all his colleagues. Contact with nature in her varied forms, especially those related to human life and vigor, creates a kinship of medical men closer than that among the members of any other profession.

The NEW YORK STATE JOURNAL OF MEDICINE, the voice of the organized medical profession of the State of New York, brings to every physician and to those who look to him for health and life, its best wishes for a Happy New Year.

PROGRESS OF THE YEAR

As the Medical Society of the State of New York passes another mile stone on the Way of Progress, it may be well for us to look back upon the course of the past year, to view the present outlook, and to indulge in a vision of our future destination.

Physicians during the past year have broadened their acquaintanceship with other workers who are traveling the same Medical Way toward the one destination of health. Workers in public health fields, like those in business lines, are divided into three great groups:

1. Physicians, who are the producers or manufacturers.
2. Departments of Health, who are the capitalists and financiers.
3. Lay organizations, who are the publicity managers, the advertisers, and the salesmen.

Physicians know that they have a necessary product which the people seek to buy; but the doctors have lacked the financial capital and the sales personnel to bring their product to the homes of the people. The past year has seen a happy understanding and co-ordination among all the great groups of health forces, the first fruit of which has been the passage of the Practice of Medicine Act. The new law was possible because of the perfect team work by the trinity of health organizations—the medical societies, the departments of health, and the lay organizations. Physicians have laid some of their irksome burdens on the shoulders of others who were fitted and willing to bear them. They conceded to the departments of health the right and power of the investigation and official control of diseases; and they recognized the peculiar field of usefulness of lay organizations in social, financial, and political fields. In return, the departments of health and lay organizations recognized the supremacy of physicians in the field of the practice of medicine; and the doctors have showed themselves willing to assume its burden. Travellers along the Way of Medical Progress now are assured of mutual helpfulness and cooperation.

When we contemplate our present position on the Medical Way, prominent features that smite our eyes are the gaudy signboards pointing to alluring havens of rest and refreshment, where one may buy artificial thrills of imitation health. But everywhere along the Way are modest guide plates placed by physicians where all seekers of the Way to Health may read them;—and the people are giving increasing heed to them and are demanding the removal of the misleading signboards that disfigure the medical landscape.

Whither will our present medical course lead us in the future? When we have reached the crest of the hills which bound our present view, we will see other heights beyond and will adjust our ideals to new standards. Our immediate problem is, how far do we expect to progress in a day, or a month? What ideal do we expect to reach tomorrow, or next year?

Medical organizations will show the people the newer fields which are already under experimental cultivation, and will teach them to demand their fruits.

The medical societies will also teach the doctors the methods of cultivating the newer fields of practice. Doctors will seek to practice preventive medicine among those who are apparently well, and they will devise practical means to discharge their civic duties as physicians. They will define concretely the vague conception embodied in the words "The Medical Profession," and will allocate the practice of the various branches of civic medicine to specific societies or their committees.

The enduring nature of the items of progress made by the Medical Society of the State of New York is attested by the progress along similar lines made by its sister state societies, and by the American Medical Association.

TABLOID NURSING INSTRUCTION

A little knowledge is a dangerous thing. While physicians consider that too much knowledge of an impractical sort tends to unfit a nurse to care for the ordinary physical needs of a sick person, they are equally sure that too little knowledge is positively dangerous.

What shall physicians say about the prospectus from which the following excerpts are taken?

"We have decided to inaugurate a course of instruction to consist of ten sessions, covering a period of three weeks, considering the ordinary nursing duties and demonstrating the usual appliances employed in the sick-room. It is not intended to do more than qualify those taking the course to intelligently carry out the physician's orders, to use sick-room appliances efficiently, to keep accurate records, to minister to the personal comfort of the patient, and, most important of all, to create in the nurse that confidence that comes from knowledge and practice."

The trouble with such a tabloid course is that it creates in the nurse too much confidence in herself, especially since the prospectus continues "We will find employment for those who qualify, at $35 weekly. This is a good opportunity for robust women, between 30 and 50 years of age, especially widows, who must earn a livelihood."

This training purports to create a class of "Instructed Practical Nurses!"

DR. GEORGE HENRY FOX, AN AUTOBIOGRAPHY

Thirty-five years ago Dr. George Henry Fox was well known to medical students as a lecturer on diseases of the skin. He was always intensely serious, and to the medical students he appeared to dwell on the heights of unapproachable greatness as with unerring skill he read the cryptic characters spelled on the skin in scarlet papules, and pimples, and wheals. Surely such a doctor had neither the time nor the inclination to consider the joys and commonplace experiences of common mortals! But time and close contact with Dr. Fox have demonstrated his kindly humanity and confirms what he says about himself in his autobiography.

An autobiography reveals the kind of thoughts which hold the mind when it is not consciously directed to a specific task. Some men's thoughts unconsciously turn to golf, some to making money, some to pessimism and jealousy, and others to religion. Dr. Fox, if we may judge by the incidents related in his autobiography, still thinks of the commonplace experiences which are common to men of all walks of life. He relates, for example, how seeing and hearing the opera Samson in Paris had recalled to him clearly his experience of sitting on the knee of his ministerial father and listening to Bible stories. He also tells the thrill which he felt at college when the class was reading from the Greek testament and he came upon a sentence which he recalled hearing his father recite to him in a playful demonstration of how to "recite a piece."

Dr. Fox is evidently somewhat of a musician, or at least, he thinks along musical lines, for he says that he likes to stand on a Fifth Avenue corner and listen to the brass band of a parade, because he too played a horn in a band in his younger days. His musical thoughts even led him to compose a new tune for "My Country 'Tis of Thee," which the reader may find on page 204 of his autobiography.

Dr. Fox spent many months in Europe studying skin diseases, and there he met those who later became famous in medicine, surgery and other specialties, but the stories were always intensely human. He was doing laryngology in a Vienna clinic and as an older student he taught Dr. George M. Lefferts, later professor of laryngology in the College of Physicians and Surgeons, and Dr. Lefferts had confided to him his strong ambition to become professor of skin diseases in that institution.

Dr. Fox has always nurtured a justifiable pride in his own family, and ancestry, and is president of a society of the descendants of Norman Fox, his father. Concerning such a society he says:

> "Nothing will do more to foster a just family pride and to increase that friendly feeling toward one another which is so desirable and which is so apt to lessen with the passing years. If some remote ancestor be selected as its patron saint the society is apt to be unduly large and unmanageable. It is much better to go back but a few generations and to get every descendant actively interested."

If doctors made a practice of writing their autobiographies, about all that most of them could record would be ordinary matters like those in the autobiography. When Dr. Fox relates those everyday experiences which all persons feel, but fear to express, he pays an unintentional compliment to every physician.

TESTS FOR ALCOHOL INTOXICATION

When is a person intoxicated, or drunk from alcohol?

What are the pathological conditions in intoxication, especially in its incipient stages?

What are practical tests for the detection of intoxication?

These questions are of grave importance in view of the great proportion of automobile accidents that are the result of intoxication. Court records reveal only a small proportion of the drunken drivers who are involved in automobile accidents, for only those who are in a far advanced stage of drunkenness are recorded as intoxicated. Every doctor who travels rural roads comes upon several scenes of automobile accidents early, not only from being called, but also because he happens upon them, as any other traveller does. He often sees drivers who are intoxicated as evidenced by the smell of liquor in their breaths, and a few slight psychological signs, which, however, are seldom sufficient to convince a judge or jury that the patient was intoxicated beyond any doubt.

Some degree of shock and of fear and apprehension would usually result from the accident itself, and a physician would usually have difficulty in sustaining a diagnosis of intoxication under a sarcastic cross examination by an astute lawyer for the defense.

Medical literature regarding the pathological condition in alcoholic intoxication is meager and scattered, and is not readily accessible to physicians. This is a field in which graduate education could properly be promoted by the Medical Society of the State of New York. The subject of alcoholic intoxication is analogous to that of ether anesthesia, and the two might well be considered together. What becomes of alcohol in the blood? How long does it remain in the body? What are its progressive effects on the nervous system as it is absorbed and eliminated? Information regarding all these points should be readily available to physicians.

Physicians desire to be informed especially about practical tests for the detection of intoxication and drunkenness. The tests are along two lines:

1. Those for detecting the presence of alcohol in the body;
2. Those for diagnosing abnormal mental states associated with the alcohol.

The meagerness or unavailability of knowledge regarding alcohol in the body is indicated by the appointment of a special committee by the British Medical Association to formulate tests for drunkenness (*Jour. A.M.A.*, Feb. 13, 1926, page 496). There are scattered references to newer tests for the detection of alcohol in the blood and urine, but none seem to be standardized and generally accepted. What is needed is that some physiological laboratory shall investigate the effects of alcohol on the human body in the same way that Professor Yandell Henderson of Yale University has investigated the effects of carbon monoxide and developed practical methods of diagnosis and treatment.

This much is generally accepted,—that alcohol is absorbed into the blood and circulates as such, and is found in measurable quantities in the brain, liver, and other organs for several hours after it is swallowed; and its effects on the nervous system and mentality are characteristic and progressive in proportion to its amount circulating the body. The work that needs to be done immediately is the development of quantitative tests both chemical and psychological that shall exactly express both the alcoholic content of the blood and the degree of the resulting mental abnormality. Since scientific research has disclosed the conditions in ether anesthesia and in carbon monoxide poisoning it should succeed equally well in alcoholic poisoning. The tests at first may be difficult and intricate, and require expert investigators working with special apparatus; but the history of all such tests is not only that they are progressively simplified, but also that physicians learn their application and use them as soon as they are practical and reliable. A long step in the solution of the alcohol problem will be taken when a physician can diagnose the amount of alcohol in the body and the resulting mental abnormality of the patient. The courts will welcome the day when a physician can testify regarding these points as accurately as he now can concerning the presence of diphtheria bacilli in the throat, or colon bacilli in drinking water.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

The causes of colds. This Journal for January 1907 discusses the causes of colds in an editorial which does not mention infection, but assigns their cause to the steam radiator which was then coming into general use. The editor says:

"The sufferers from colds are not those who live in the out-of-door air, but are those who spend a large part of the winter-time in an unnatural atmosphere. The air in offices, stores, theatres, factories, and dwellings, in this climate is bad. Its temperature is usually higher than is consistent with good health; each occupant inhales the materials that have come out of some one else's lungs; and the percentage of moisture in the air is much below normal. These defects are due to the defects of the modern heating appliances. It is a long step backwards, so far as healthfulness goes, from the fireplace of our coldless ancestors to the steam-heated radiator of this catarrhal generation.

"Of all the iniquitous machinery that has ever been contrived to destroy the weaklings and emasculate the strong the steam-heated radiator stands pre-eminent. Here is a thing which can be put in a room, and the more tightly the room is sealed against the inlet and egress of air the more efficient it is and the more is it vaunted as a successful heater. The furnace, which was cast out to give place to this thing, is eminently more rational. Every cubic foot of air from the furnace that enters a room displaces a cubic foot; it will not work unless there is ventilation. And the old-fashioned stove and the fire-place all demanded ventilation; but the radiator works best without it.

"Another defect of most modern heating apparatuses is that they dry the air. It has been shown that persons breathing abnormally dry warm air have the vital resisting power of their respiratory mucous membranes decidedly lowered and rendered susceptible to the complex of phenomena designated as cold. Thus we find in our fine modern system for preventing coldness the conditions conducing to colds. Examination of the air of rooms in the winter shows from five to thirty per cent less moisture than is present in the normal out-door air. Our in-doors winter population lives in an atmosphere so far below the point of saturation that evaporation is constantly and more rapidly than normal taking place from the skin and respiratory mucous membrane. A result of this evaporation is a sensation of coolness. It is not uncommon to find in an office a temperature of 70 or 75 degrees, or even higher, and yet a sensation of chilliness when the moisture is low; whereas in a kitchen, with boiling pots on the stove, a much lower temperature imparts a decided sense of warmth to the skin."

MEDICAL PROGRESS

The Sterilization of Infected Wounds and Chronic Ulcerations by Periarterial Sympathectomy.—René Leriche and R. Fontaine (*Annals of Surgery,* November, 1926, lxxxiv, 5) find that in chronically infected wounds, provided these wounds are not in contact with foci of osteitis or do not contain foreign bodies, periarterial sympathectomy is followed in five to thirteen days by absolute bacterial sterilization. Their investigations show that chronic ulceration—ulcer following burn, varicose ulcers, syphilitic ulcer, chronic post-traumatic ulcer, etc.—is always infected with a large variety of microbian species. The different dressings that are usually applied in these cases do not alter the bacterial flora, and arsenobenzol and insulin, even though they promote healing, do not modify the bacterial state of the wound. When the wound becomes sterile after periarterial sympathectomy, the slides show only numerous polymorphonuclear leucocytes in good condition and normal large mononuclears. The rapid sterilization is explained by a considerable afflux of leucocytes and red blood cells at the level of the ulcer. But all the results of periarterial sympathectomy are not due to a sterilization of the infected surfaces. It produces, in addition, an exaltation of the tissues' vitality, which brings about a rapidity of healing in an infected wound which exceeds that of a normal aseptic one. When the chronic infection has been overcome and the state of nutrition of the skin improved, the application of dermo-epidermic grafts aids in completing the restoration. The grafts "take" well in these cases. This method has been applied by the writer only to ulcers which had previously received antisyphilitic treatment.

In this connection a case reported in *La Riforma Medica,* September 27, 1926, by G. Broglio, is of interest.

A man of 42, soldier in the late war, who had been wounded by a projectile which traversed the leg from above downward in such a manner as to produce a comminution of the tibia and ankle bones. He was treated by immobilization which was followed by the expulsion of fragments of bone and sequestra with formation of fistulous tracts. The patient was left with ankylosis of the ankle with the foot in a semi-equinus position. Several months later there was an abscess formation at the back of the leg which left an ulcer of large dimensions and which could not be made to heal. Associated with this were intense pains which could hardly be endured. In time it became impossible for the patient to walk, owing to the pain set up by bearing the weight on the limb. Eight years after the injury the patient was examined and his general condition and nutrition were found to be excellent. The leg was hypotrophic, semirigid, and flexed on the thigh, the latter being flexed on the pelvis. The large ulcer on the back of the leg had cicatrized in part but there still remained an elliptical loss of substance which secreted but little and was very painful. No pulsation of the femoral artery was felt in the upper thigh nor in the popliteal space. This find with the evidently trophic character of the ulcer led to the operation of periarterial sympathectomy, done by Professor Finzi under local anesthesia in Scarpa's triangle. The femoral artery, represented by a sclerotic cord only, was isolated for about 8 cm. and the adventitia removed. The pains at once ceased, the wound closed completely and the patient resumed locomotion. In other respects the condition of the leg remained unchanged.

Headaches, with Special Reference to Those of Ocular Origin.—George E. deSchweinitz, in a recent address (*Canadian Medical Association Journal,* November, 1926, xvi, 11), asserts that 30 to 60 per cent of the cases of functional headache are due to eyestrain. All types of heterophoria, either alone or associated with refractive errors, are headache-producing, and may have favorite areas of the cranium for their activities, but it should be emphasized that these are often only suggestive localizations—nothing more. The degree of dysfunction of the ocular apparatus which causes the headache may be trifling, and yet be as effective, often more effective, as a pain producer than when gross defects are present. The incidence of ocular headache does not depend alone upon eye-work at close range. Car sickness associated with headache, the shopping, cinema, and automobile headaches are in the majority of instances due to eyestrain. Many pure eyestrain headaches continue after the eyestrain has been corrected, and under these conditions the surroundings of the patient during working hours—glare, imperfect illumination, unhygienic conditions, lack of fresh air—should be investigated. True migraine is never, in the writer's opinion, due solely to eyestrain, although the latter is often an important factor in the complex etiology of this disease entity. A long list of reflex disturbances may be due to eyestrain: Vertigo, one variety being characterized by a sense of falling forward when walking in a crowd, associated with confusion of ideas;

drowsiness, insomnia, timidity, night errors, and evil dreams; pseudo-chorea, habit spasm, epileptiform convulsions, melancholia, and neurasthenia; flatulence and other forms of dyspepsia, intestinal indigestion and constipation; pains strangely and persistently situated in the nape of the neck, between the shoulder blades, in the precordium, at the end of the spine, and deep in the mastoid. This category could be further extended. Since such symptoms are frequently due to extraocular causes, it is highly important that a complete investigation be made from all standpoints in order to eliminate other causes, toxic or mechanical. It is the duty of the physician to recognize the relation of eyestrain to all of these allied phenomena, and by a careful history and examination to determine or eliminate it as an etiological factor.

The Relation of Tactile Impression and Hearing Perception.—John Tyndall, more than forty years ago, stated that all the sense organs—sight, hearing, taste, and smell—might justifiably be classed as modifications of the sense of touch. Max Goldstein (*Laryngoscope,* October, 1926, xxxvi, 10) brings forward evidence from the study of embryology and the comparative anatomy and physiology of animals, both vertebrate and invertebrate, which gives support to this statement. He shows that the special sensory end-organs originate, like the nervous system in general, from the epiblast, and that the terminations of the sensory nerves are always to be found in cells of epithelial origin, while mesoblastic elements are secondarily added to them, that is, sight, smell, taste, and hearing are secondary differentiations of a diffused sense, the tactile sense. In Goldstein's investigations and functional hearing tests it has been found difficult to determine where an auditory impression ceases and tactile impression begins, or to what degree one sensory impression may be translated into terms of the other. It has been demonstrated that when one speaks into a rolled hollow cylinder of paper blocked at the distal end, a deaf pupil with the finger tips may receive by tactile impression the sound of the speaker's voice, repeating words, numbers, and names with a fair degree of accuracy. Deaf pupils, whose finger tips have become highly sensitized, are able to receive and repeat sentences heard through an ordinary megaphone, the distal end of which is spanned by a tense diaphragm of Whatman paper, and with which the tips of the fingers are in contact. There is much promise in the use of apparatus embodying radio and telephone principles for the amplification of sound, since it has been shown that a considerable percentage of congenitally deaf children have some residuum of hearing which is peculiarly sensitive to stimulation and education. Since the introduction of such apparatus in schools for the hard of hearing, not only is scholastic accomplishment much simplified and increased, but there is a distinct improvement in sound perecption in many pupils. Just how far it may be possible to substitute one sense impression for another still remains to be determined.

Vaccination and Paresis.—K. Arnold and M. Kopp first mention our lack of knowledge of the determining cause of paresis, for factors other than spirochetic infection are concerned here. Recently there has been seen the coincidence of three distinct authorities in the discussion of the possible relationship between this sequela of syphilis and vaccination against smallpox. Luksch, a bacteriologist, in connection with the rôle of the vaccine virus in the production of a form of encephalitis, suggested that it might cooperate with the treponema in the genesis of paresis. Independently a psychiatrist, Daraszkiewicz, expressed a similar opinion, with the alternate view that the development of vaccinal immunity might be the determining factor. A third to arrive at the same conclusions is H. Salomon. The author limits his article in the *Deutsche medizinische Wochenschrift,* October 22, 1926, to a discussion of the alternative of Daraszkiewicz and takes up first the vaccinal immune body theory. He made experiments with victims of paresis and normal controls as follows: a gram of frontal brain substance was rubbed up to an emulsion with saline infusion, mixed with vaccine virus in different proportions, incubated for a short time, and then inoculated into the skin of a rabbit. The result was quite negative, the pustules developing as usual; in other words the vaccine had not been in any way altered by the admixture of paralytic brain emulsion. The experiments were repeated with serum substituted for brain substance and with the same negative result. The author then proceeded to investigate the possibility that the vaccine virus directly attacks the brain with production of the so-called syphilitic encephalitis. This could be tested only on rabbits and only along the general line of the ability of the virus to cause a brain lesion. The author has worked on this problem for many months, using many animals and varying the conditions in all possible ways, yet up to date has never succeeded, merely by cutaneous inoculation, in causing the least evidence of encephalitis.

Focal Infection in Its Relation to Medical Problems.—Francis Ashley Faught, writing in the *American Journal of the Medical Sciences,* November, 1926, ccxxii, 5, voices his conviction that the value of the elimination of focal infection, instead of having been overdone, has not yet begun to receive the attention its importance warrants. There is a failure of some specialists, especially dentists and rhinolaryngologists, to appreciate that a devastating focal infection may be present in the absence of demonstrable pus. The value of the removal of foci of infection depends upon the thoroughness with which the search for such foci is made and the completeness of their eradication. Periodic health examinations are valuable as a means of discovering unsuspected foci of infection. Autogenous vaccines are useful in the treatment of focal infections, especially those from the teeth or the tonsils, and particularly when the removal of a number of teeth is indicated. The following procedure is recommended: After selecting one or two teeth showing definitely diseased apical areas, the teeth in this region are thoroughly scaled and cleaned, including those to be removed. Immediately upon extraction, the tooth grasped in the forceps is held over a tube containing bouillon culture, and its apex cut off with a rongeur so that it falls into the culture medium. The tooth socket is entered with a small sterile swab, which is immediately rubbed over a blood agar plate or tube slant. The autogenous bacterin when prepared is administered at five to seven day intervals, according to the patient's reaction, until five or six doses have been given, when multiple extraction can be carried out with little danger of acute exacerbation of the secondary foci of infection. Cases are cited demonstrating the importance of complete removal of all foci of infection, the danger of multiple extraction of teeth, the close relation of focal infection to gastroenteric disease, and the influence of focal infection on the thyroid gland.

Antiquity of Psychotherapy.—Psychotherapy may be considered from the double viewpoint of unconscious and conscious. The unconscious practice, in which suggestion figures so largely, has always been more or less in vogue, the physician and charlatan often being quite deceived as to the modus operandi of the cure or recovery of the patients. But conscious psychotherapy is much older than is generally thought and Professor F. Kehrer in an article on Psychotherapy in the *Klinische Wochenschrift* for October 22, 1926, quotes numerous examples from literature. Thus in 1783 K. P. Moritz established a magazine to be devoted to empirical psychology and laid down principles for psychotherapy. Esquirol employed the term "moral treatment," but quite in the sense of our psychotherapy, and almost at the same time Reil, who was first a surgeon and general practitioner and later an alienist, claimed that mental therapeutics should be practised not only in insanity but in all sickness. The axiom "treat the patient and not the disease" which connotes psychic management of patients is very ancient. The germ of it is found in Celsus but it was perhaps first enunciated in modern times by Leupoldt, who was probably influenced by Moritz, quoted above. Freud and his disciples in their widespread application of psychoanalysis to history and biography have unearthed numerous others who recognized the necessity for psychotherapy, the latter part of the 18th and beginning of the 19th centuries representing a sort of new awakening of this idea. There was however some confusion, as when Pinel ascribed the bulk of insanity to affects, although we know today that this teaching is false and that most insanity is endogenous in origin. Zeller, writing a century ago, held that the reserve forces of the patient might be utilized to combat his disease. The author does not mention Mesmer as an active agent in the promotion of modern psychotherapy.

Age Incidence of Rheumatism.—J. Ross Snyder (*Southern Medical Journal,* November, 1926, xix, 11) states that, although rheumatism occurs with about equal frequency in children and adults, the symptoms in the former are very unlike those in the latter. The same non-pus-producing streptococcus which causes marked joint symptoms in the adult displays an affinity for cardiac and nervous tissue in the child. The constitutional symptoms in the child are often exceedingly mild and pass unnoticed. Rheumatic invasion, which should be distinguished from rheumatic fever, may be so insidious that unless we admit a prefebrile or prodromal stage we neglect a great opportunity in preventive medicine. Every infant born with a family history of rheumatism should be regarded as a suspect. Such a child is often below par in weight, in color, and in texture of the musculature, he is a poor feeder, has a capricious appetite, is nervous, does not sleep well, but tosses, grits his teeth, or cries out. He is susceptible to colds, has an unstable, flighty temperature, which rises with a slight cold, a day of excitement, or overplay; he is easily fatigued. When these symptoms occur in combination they afford a definite classification of the child as rheumatic. If the child's activities are not stopped, more marked symptoms appear—stiffness of the neck, sore throat, "growing pains," overaction of the heart, even in sleep, and a constantly elevated temperature. At this stage, tonsillectomy and other corrective measures are likely to be disappointing, and the heart remains crippled. The problem presented by these children can be solved only by revamping pediatric literature so that it will no longer teach that rheumatism, except in rare instances, does not occur in a child under three years of age. Infants are born with portals open to the entrance of infection, rheumatic and otherwise. It should be taught that the child born of rheumatic parents is potentially a heart case and should have regular medical inspection.

A Peculiar Affection of the Liver Accompanied by Cholesterinemia.—A. Edelmann says that he has for several years past been familiar with an undescribed condition which may serve to throw light on some of the common affections. He has seen it mostly in men of the age period 35-55 years although it also occurs in women. The chief complaint of the patients is of neurasthenoid symptoms, such as lassitude and irritability. There is however a peculiar restlessness which may drive them to unusual exertion, as in the case of one man who felt impelled to a trip round the world. There are numerous subjective sensations as of pain and discomfort. The physician's eye is taken with what at first sight seems to be icterus but is found on examination to be xanthoma, or rather perhaps xanthelasma as there is no mention of anything beyond simple discoloration. The blood shows a marked increase in the cholesterin content and not only hypertension but rigid and tortuous arteries are found to be present. Cardiac hypertrophy is probably a sequence of the arteriosclerosis. The liver is sensibly enlarged and tender on pressure. The total number of cases thus far studied is sixteen. The author suggests that the liver is the original source of the disease process, the increase of cholesterin being due to the incapacity of the liver to secrete it from the blood. The other symptoms are referred to the presence in the blood of certain retention substances. There is a suggestion of a disturbance in the suprarenals in the asthenia and discoloration of the skin, and these bodies are known to be intimately concerned in some unknown way with the metabolism of cholesterin. The author is now engaged in writing a more complete account of this disease from a study of the literature of analogous affections.—*Wiener klinische Wochenschrift,* October 21, 1926.

Treatment of Acute Intussusception in Infants.—In a special article in the *Lancet* of October 9, 1926, ccxi, 5380, Gertrude Herzfeld emphasizes the importance of early diagnosis in intussusception in infants, as shown by the fact that operation within 12 hours is almost invariably successful, while in cases left 24 hours or longer the mortality is from 30 to 60 per cent. In order to detect the sausage-shaped tumor it may be necessary to make an examination under complete anesthesia. The treatment nearly always involves opening the abdomen, as with the injection of fluids it is impossible to tell whether reduction is complete. The preoperative injection of saline solution subcutaneously in the axillæ or the loin is important, as these infants are always dehydrated. The child should be well warmed in bed for an hour before operation, the operating room should be kept at a temperature of 75° F., and the operating table should be artificially heated if possible. The anesthetic should be gas-oxygen with a minimum of ether, or ethyl chloride followed by ether. Operative success depends mainly on rapidity and extreme gentleness in handling. Reduction is attained by milking gently backward along the colon within the abdomen. The actual reduction gives trouble as a rule only in the last two or three inches on account of the great swelling and edema of the parts. At this stage the intestine should be brought out of the abdomen. Injury to the peritoneal coat may be prevented by surrounding the tumor with a moist swab and uniform pressure for 30 seconds; by this expedient reduction is often easily effected. The simple operation should never take more than fifteen minutes. When the intussusception is absolutely irreducible, resection gives the best results, though the prognosis is always grave. A lateral anastomosis between the ileum and transverse colon or between the two portions of the ileum is the most satisfactory way of dealing with the situation. Postoperative measures consist chiefly in the administration of fluids and the maintenance of warmth. The child should receive saline every four hours for 12 to 24 hours, and for the first three or four hours the foot of the bed should be raised. The temperature should be taken every three or four hours; unless it rises above 104° F. tepid sponging is unnecessary. A little sugar and water may be given after 6 hours, then a teaspoonful of breast milk every two hours for another six to twelve hours, after which the child may be allowed to nurse for five to ten minutes every three hours. When resection has been carried out, feeding should be begun more gradually, consisting of albumin water only, for 24 to 36 hours. Postoperative vomiting is best treated by gastric lavage every six hours and the injection of glucose to maintain nutrition. Temporary paresis responds better to stomach and colon lavage than to stimulants. If enteritis occurs, a dose of castor oil is given with the usual medical treatment. Recurrence of the intussusception calls for immediate operation, which is not so serious as it sounds, for patients usually do well after a second operation.

LEGAL

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THE SUPREME COURT OF THE UNITED STATES LIMITS THE PRACTICE OF MEDICINE

On the 29th of November, 1926, the Supreme Court of the United States, in the case of Samuel W. Lambert against Edward C. Yellowley, by a divided Court of five to four, handed down a decision as far reaching as any which that august tribunal has ever made.

In 1922, Dr. Samuel W. Lambert of New York City, admitted by the Court to be "a distinguished physician," applied for an injunction to restrain Yellowley, the acting Federal Prohibition Director, and other officials "from interfering with complainant in his acts as a physician in prescribing vinous or spirituous liquors to his patients for medicinal purposes, upon the ground that the quantities prescribed for the use of any one person in any period of ten days exceed the limits fixed by said Acts, or either of them."

In his bill of complaint, Dr. Lambert's manifold qualifications and experience as a physician were set forth, and there was likewise stated his belief that in certain cases, including some subject to his professional advice, "the use of spirituous liquor internally as a medicine in an amount exceeding one pint in ten days is necessary for the proper treatment of patients in order to afford relief from human ailments;" and further "that he does not intend to prescribe the use of liquor for beverage purposes."

Dr. Lambert's bill of complaint further alleged that "to treat the diseases of his patients and to promote their physical well-being, according to the untrammelled exercise of his best skill and scientifically trained judgment, and, to that end, to advise the use of such medicines and medical treatment as in his opinion are best calculated to effect their cure and establish their health, *is an essential part of his constitutional rights as a physician.*"

The writer can think of no more patriotic or courageous service ever rendered to the medical profession than Dr. Lambert's effort to secure from the Supreme Court a decision upholding him and his professional brethren in their liberty to practice medicine. To the writer it appears a grave misfortune, both to the medical profession and to the public, that Dr. Lambert's contentions were not upheld. How much of merit there was in them appears in the fact that four of the nine Judges of the United States Supreme Court, in a dissenting opinion of great cogency and force, have sustained this eminent practitioner of the healing art in the contentions which he advanced.

The prevailing opinion was written by Mr. Justice Brandeis. The argument of the prevailing opinion is

(a) That the Eighteenth Amendment prohibits "the manufacture, sale and transportation of intoxicating liquors for beverage purposes."

(b) That Section 2 of the Eighteenth Amendment confers upon Congress "the power to enforce the prohibition by appropriate legislation."

(c) That the limitation upon the amount of liquor which may be prescribed for medicinal purposes, is a provision adapted to promote the purpose of the amendment.

(d) That that provision is not arbitrary, as appears "from the evidence considered by Congress which embodies, among other things, the lessons of half a century of experience in the several States in dealing with the liquor problem."

(e) That evidence disclosed that practicing physicians differ about the value of malt, vinous and spirituous liquors for medicinal purposes, but that the preponderating opinion is against their use for such purposes; and that among those who prescribe them there are some who are disposed to give prescriptions where the real purpose is to divert the liquor to beverage uses. In amplification of these assertions, the majority opinion calls attention to the fact that "the American Medical Association, at its meeting in 1917, had declared that the use of alcoholic liquor as a therapeutic agent was 'without 'scientific basis' and 'should be discouraged,' and, at its meeting in June, 1921, had adopted a resolution saying 'reproach has been brought upon the medical profession by some of its members who have misused the law which permits the prescription of alcohol.' "

The majority opinion makes constant reference to the different views entertained by the members of the medical profession as to the therapeutic value of intoxicating liquor. It says, for example, that

> "Congress, in deference to the belief of a *fraction of the medical profession* that vinous and spirituous liquors have some medicinal value, has said that they may be prescribed in limited quantities according to stated regulations; but it also has said that they shall not be prescribed in larger quantities, nor without conforming to the regulations, because this would be attended with too much risk of the diversion of the liquor

> to beverage uses. Not only so, but the limitation as to quantity must be taken as embodying an implicit congressional finding that such liquors have no such medicinal value as gives rise to a need for larger or more frequent prescriptions. Such a finding, in the presence of the well-known diverging opinions of physicians, cannot be regarded as arbitrary or without a reasonable basis. On the whole, therefore, we think it plain that the restrictions imposed are admissible measures for enforcing the prohibition ordained by the Eighteenth Amendment."

Further pursuing this subject, the prevailing opinion calls attention to previous decisions of the Supreme Court, and continues:

> "From the authority of these cases Dr. Lambert seeks to escape by pointing out that he is a physician and believes that the use of spirituous liquor as a medicinal agent is at times both advisable and necessary. He asserts that to control the medical practice in the States is beyond the power of the Federal Government. Of course his belief in the medicinal value of such liquor is not of controlling significance; it merely places him in what was shown to Congress to be the minor fraction of his profession."

> And further, that

> "*High medical authority being in conflict* as to the medicinal value of spirituous and vinous liquors taken as a beverage, it would, indeed, be strange if Congress lacked the power to determine that the necessities of the liquor problem require a limitation of permissible prescriptions, as by keeping the quantity that may be prescribed within limits which will minimize the temptation to resort to prescriptions as pretexts for obtaining liquor for beverage uses."

Even without reference to the convincing logic of the dissenting opinion concurred in by four Justices of the United States Supreme Court, as the writer sees it, the prevailing opinion unwarrantably extends the powers of Congress granted under the Eighteenth Amendment to enforce its provisions prohibiting "the manufacture, sale or transportation of intoxicating liquors *FOR BEVERAGE PURPOSES*;" it constitutes a dangerous extension of the police powers of the Federal Government, and an unwarrantable invasion of the powers of the States, and above all, is a reflection upon the entire medical profession, as it is based in part upon the assumption that there are so many physicians who, under the guise of prescribing liquor for their patients, would merely seek to evade the purposes of the law, and would aid in diverting such liquor "to beverage uses," that the medical profession can not be trusted with that which large numbers of them believe to be necessary for the alleviation or cure of disease. In the last analysis, the prevailing opinion holds that Congress, and not the medical profession, has the power to determine what is proper and what is not proper, and what shall and what shall not be prescribed for disease.

In passing, the writer can not forebear from the reflection that no more powerful instance could be cited of the ill effects suffered by the medical profession, from a lack of unanimity in its ranks, than this decision of the Supreme Court.

We turn to the dissenting opinion by Mr. Justice Sutherland with strong approval, and with equally strong regret that one more Justice of this distinguished Court did not conclude to concur with him in his unanswerable views. Had this been done, the dissenting opinion, and not the prevailing opinion, would have been the law of the land upon this subject.

"Plainly," said Mr. Justice Sutherland, "Congress in submitting the Amendment, and the several States in ratifying it, meant to leave the question of the prohibition of intoxicating liquors *for other than beverage purposes* to the determination of the States, where it had always been. The limiting words of the Amendment are not susceptible of any other meaning; and to extend them beyond the scope of that meaning really is to substitute words of another and different import."

With impelling force, Mr. Justice Sutherland continues:

> "It is important also to bear in mind that 'direct control of medical practice in the States is beyond the power of the Federal Government.' Linder v. United States, 268 U. S. 5, 18. Congress, therefore, cannot directly restrict the professional judgment of the physicians or interfere with its free exercise in the treatment of diseases. Whatever power exists in that respect belongs to the States exclusively."

In these words, the learned Justice has placed his finger upon the true crux of the whole question, i. e., Can Congress interfere with the professional judgment of a physician or curb its free exercise in the treatment of disease? It is at least some comfort to find that four of the nine judges answered that question in the negative.

Turning to the reasoning of the majority, the dissenting opinion continues:

> "We have the fact that Congress, acting upon a report of one of its committees made after exhaustive hearings, declared by statute that the prescription of malt liquors should be prohibited and the prescription of spirituous and vinous liquors should be permitted. Justifying such legislation, the committee had reported that the overwhelming evidence was to the effect that *malt* liquors

> (not also spirituous and vinous liquors) had no substantial medicinal value. It is now said by the majority, at one point, that the preponderating opinion of practicing physicians is against the use of all three and, at another point, that only a minor fraction hold the other view. I am quite unable to assent to these generalizations. On the contrary, the impossibility of determining, from anything now before this Court, what is the preponderating opinion upon the subject, is very clear. An examination of the hearings before the House Judiciary Committee, cited as authority for the foregoing statements, shows that the inquiry there was directed to the question of the medical value of *malt* liquors and that the question of the medical value of the other liquors was not under consideration."

Furthermore, the dissenting opinion calls attention to the fact that a questionnaire had been sent out to one-third of the physicians of this country, and it brought "a reply from enough to make 21.5 per cent of the whole number of physicians in the country, and that a little more than one-half of those replying voted 'Yes' on the use of whiskey as a therapeutic agency, some of them, however, taking exception to the word 'necessary,' saying that no drugs were absolutely necessary. The American Medical Association, whose resolution of 1917 is referred to, have filed in this case a brief as *amicus curiae,* challenging the conclusion which is drawn from that resolution and vigorously attacking the Act now under review as arbitrary and unreasonable. In 1924, the House of Delegates of the Association adopted a resolution expressing its disapproval of those portions of the Act 'which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally;'" and the dissenting opinion further continues:

> "As the record now stands, therefore, we must begin this inquiry with the assumption that vinous and spirituous liquors are in fact valuable medicines; and it necessarily follows that, at least as an end as distinguished from a means to an end, the prescription of such liquors in good faith for medicinal use cannot be prohibited by Congress, since that body lawfully cannot legislate beyond the grants of the Constitution. The report of the committee and the hearings will be searched in vain to find any suggestion that the quantity designated by the statute is adequate or that the committee or Congress gave any consideration to that question."

"The naked question, then," continues the dissent, "simply comes to this: Conceding these liquors to be valuable medicines, has Congress power, under the constitutional provision prohibiting traffic in intoxicating liquors for beverage purposes, to limit their prescriptions in good faith, and consequently their necessary use, for medicinal purposes, to a quantity which, under the allegations taken as true, is inadequate for such purposes? To me the answer seems plain. If Congress cannot altogether prohibit the prescription for medicinal use, it cannot limit the prescription to an inadequate quantity, for obviously, in that case, *to the extent of the inadequacy,* the prohibition is as complete, and the usurpation of power as clear, as though the prohibition were unqualified. If the power exists to limit the quantity to a pint in ten days, it exists to limit the quantity to a tablespoon or a teaspoonful or a few drops during the same or any other arbitrary period of time, with the result in substance and effect that the definite limitation of the prohibitory power by the words 'for beverage purposes' vanishes altogether."

And further this vigorous dissent goes on:

> "It is said that high medical authority is in conflict as to the medicinal value of spirituous and vinous liquors and (hence) it would be strange if Congress lacked power to determine that the necessities of the liquor problem require a reasonable limitation of the permissible prescriptions. This observation does more than beg the question,—it indulges an assumption the exact contrary of that which the record conclusively establishes, for the limitation of quantity is not only unsupported by any legislative finding that it is reasonable, but it is in flat opposition to the only facts appearing in the record which bear upon the question of what is a permissible prescription, and, therefore, is without rational basis, resting alone upon the arbitrarily exercised will of Congress. I do not see how it can be held otherwise without completely ignoring the case as made and constructing and considering another and different case."

How serious an invasion of the power of the States to regulate the practice of medicine is the majority's interpretation of the Eighteenth Amendment and the legislation enacted under it, appears from this language of the dissent:

> "By the legislation now under review, the authority of Congress is so exercised that the reserved power of the States to control the practice of medicine is directly invaded, to the illegitimate end that the prescription and use of liquors for medicinal purposes is prohibited. It is true that Congress has wide discretion in the choice of means to carry the granted power into effect, but the means not only must be appropriate to the end but must be such as 'are not prohibited, but consist with the letter and spirit of the Constitution.' *McCulloch* v. *Maryland,* 4 Wheat. 316, 421. A grant of power to prohibit for

specified purposes does not include the power to prohibit for other and different purposes. Congressional legislation directly prohibiting intoxicating liquor for concededly medical purposes, therefore, does not consist with the letter and spirit of the Constitution, and viewed as a means of carrying into effect the granted power is in fraud of that instrument, and especially of the Tenth Amendment. * * * The effect of upholding the legislation is to deprive the States of the exclusive power, which the Eighteenth Amendment has not destroyed, of controlling medical practice and transfer it in part to Congress. See Hammer v. Dagenhart, 247 U. S. 251, 275-276."

However much we may concur with the dissenting opinion, and approve of its logic, or may disapprove of the reasoning of the majority, it is the law of the land that the opinion of the five judges must prevail, and that of the four dissenting members of the Court cannot control.

As in so many other questions wherein the Eighteenth Amendment is involved, the importance of the decision far transcends any mere question relating to intoxicating liquors. The real question in this case is whether or not the Doctors may decide what is well for their patients, or whether that decision may be made for them by Congress. The Doctor is responsible for the treatment which he gives his patient, but his hands are now tied by Congress as to what that treatment may be.

As with a clarion call, that decision should arouse the medical profession to the importance of maintaining a united front for the preservation of their rights and for the protection of their sacred trust—the patient's health and life. Although Dr. Lambert failed by one vote of securing a decision upholding him and his brother doctors in what he and they believe to be the proper performance of their duty, it should in no wise derogate from the obligation under which he has placed the entire medical profession for his courageous endeavor to vindicate their rights and their liberty.

CLAIMED IMPROPER TREATMENT OF INFECTION OF FACE AND EYE

A physician was called to the home of a woman about seventy years of age. He found her in bed suffering from grippe. He prescribed the necessary medication for her condition and visited her daily from January 13th to January 20th, at which time she had recovered from her illness. At the time of his first visit he also found that she had an infection of the eye and she told the physician that she had been under treatment by an occulist for this condition, who had given her medicine for the same. This physician did not attempt to treat the infection but he noticed, when he continued to call upon her, that the infection appeared to spread to the other eye and extended downwards toward the mouth, the infection having the appearance of a pustular infection. When this infection commenced to spread he prescribed a 10 per cent argyrol solution to be instilled in the eyes and resinol ointment to be applied to the face. These applications were not effective in subduing the infection. He then prepared and had applied a Dakin solution. This likewise was not successful in controlling the infection. He last saw the patient on January 24th. On the following day he received a telephone call from the patient's daughter and was discharged from further treatment of the patient. At this time, however, he advised the discontinuance of the use of the Dakin solution and the return to the resinol ointment.

Nothing further was heard from this patient until the physician was served with a summons in an action instituted against him, the action being brought in one of the up-state counties In the complaint in this action it was charged that on January 13th the defendant was employed as a physician to treat and advise the plaintiff; that the plaintiff was in a weak physical condition, bedridden, and gradually became worse as a result of the defendant's treatment; that she began to decline and underwent great pain and exhaustion; was in a nervous condition and emaciated as the result of the defendant's failure to render her the proper treatment for her condition; that while under the defendant's care the plaintiff was caused to suffer great and unnecessary pain and mental anguish; that her condition grew progressively worse and it was necessary to call other physicians to treat the plaintiff. It was further claimed that the plaintiff was caused to suffer a permanent disfigurement of the face, her eye-sight was impaired and there had also been caused a dropping of the eyelids, which greatly disfigured her. The plaintiff sought twenty-five thousand dollars' damages for her claimed injuries.

On motion made on behalf of the defendant, an order was procured requiring the transfer of the action to the county in which the physician resided and in which the treatment was rendered. After the transfer of the action the plaintiff failed to notice it for trial or place it on the calendar or take any further steps in connection with the prosecution of the action. After the proper period of time had elapsed, a motion was made on behalf of the defendant to dismiss the action for lack of prosecution, which was granted.

NEWS NOTES

THE HARRISON NARCOTIC LAW

The Council of the Medical Society of the State of New York, at its meeting on December 9, passed the following resolution regarding the proposed amendments to the Federal Narcotic Act:

WHEREAS, physicians alone are qualified by training and licensure to employ narcotic drugs which, under certain conditions, are the greatest boons to suffering man, and

WHEREAS, no rules or regulations can be promulgated by which the dispensing of these beneficent drugs can be standardized, but decision must be left to the judgment of the attending physicians if human suffering is to receive prompt relief, and

WHEREAS, already many physicians have concluded the hazard and jeopardy to their license and opportunity to practice medicine incurred by the multitudinous rules and regulations involved in dispensing narcotic drugs, is so great and imminent that they have permitted their registration to use narcotic drugs to lapse, and

WHEREAS, the public of necessity suffer in the end if the physician lacks equipment and facilities for proper and prompt relief of pain, therefore

BE IT RESOLVED, that the Medical Society of the State of New York petitions its Congressmen, individually and collectively, to oppose any amendment and revision of the Harrison Narcotic Law that would make more difficult the conditions under which physicians are obliged to work at present. It requests immediate and continued opposition to favorable action on bill HR-11612 and its companion, S-4085, on the following grounds:

1. It would be an unwarranted hardship on the physician to deny him registration under the Harrison Narcotic Act for a period of from one to two years if convicted of any violation whatsoever of the Act, *no matter how technical and unimportant the offense may be;*
2. It is unnecessary to give collectors of internal revenue authority to refuse registration under the Harrison Narcotic Act to physicians whom such collectors believe to be narcotic addicts, because *the law of the State of New York provides for the withdrawal of the license to practice medicine from any physician convicted of being a narcotic addict,* and the amendment suggested in both of these bills makes no provision for notice and hearing before such refusal, nor for an appeal from the collector's decision;
3. It is an unfair precaution, and the imposition on pharmacists of an impossible task, to authorize and require that they *refuse to dispense narcotic drugs on any prescription issued by a physician* if the pharmacist is of the opinion that the physician did not issue the prescription in the course of his proper professional duties;
4. It must be conceded that physicians should be permitted to use their best judgment in deciding the character and type of treatment to be employed on any particular patient they have under their care and, hence, it would be entirely wrong for any law *to forbid absolutely and under any and all conditions whatsoever, the ambulant treatment of narcotic addicts;*
5. It would be an inexcusable imposition to make physicians keep more records than are now required, of narcotic drugs administered and dispensed in their services to the public.

The Committee on Legislation of the Medical Society of the State of New York has sent a copy of this resolution to each congressman.

The Committee also suggests that the Legislative Committee of each County Medical Society influence the family doctors of the congressmen and senators to write to the legislators at Washington urging them to give serious consideration to this resolution of the physicians.

PUBLICATIONS OF THE DEPARTMENT OF HEALTH OF NEW YORK CITY

The Department of Health of New York City issues weekly and monthly bulletins which are of great value to physicians from the standpoint of scientific medicine, as well as that of public health. The New York State Journal of Medicine has frequently quoted items in which every doctor should be interested.

These bulletins will be sent to any physician who will send his name and address to the Director of Health Education, Department of Health, 505 Pearl Street, New York Cityy. Those who are already on the mailing list should renew their applications, for the list of recipients is being revised.

PRACTICAL LECTURE SERIES OF THE NEW YORK ACADEMY OF MEDICINE

The New York Academy of Medicine has planned a series of practical lectures to be given on Friday afternoons at five o'clock in the building at Fifth Avenue and One Hundred and Third Street. The lectures are free and are open to all physicians. The great interest shown in similar lectures under the auspices of the Medical Society of the County of Kings assures the success of the extensive course planned by the New York Academy of Medicine. The lectures are as follows:

Jan. 7—The treatment of pneumonia. David Riesman, Philadelphia.

Jan. 14—General infections by bacteria. Emanuel Libman.

Jan. 21—Obstetrical problems in general practice. John O. Polak.

Jan. 28—Clinical aspects of common otological infections. Samuel J. Kopetzky.

Feb. 4—Clinical forms of syphilis. George M. MacKee.

Feb. 11—Treatment of cardio-vascular syphilis. Harlow Brooks.

Feb. 18—Urology for the general practitioner. J. Bentley Squier.

Feb. 25—Surgical aspects of medical conditions. John E. Jennings.

Mar. 4—The diagnosis and treatment of intestinal obstruction. John F. Erdmann.

Mar 11—Problems of the first year. Herbert B. Wilcox.

Mar. 18—Common diseases of the eye. John M. Wheeler.

Mar. 25—Surgical aspects of diseases of the thyroid. Eugene H. Pool.

Apr. 1—Pathological causes of human misconduct. Max Schlapp.

Apr. 8—The role of climate in the treatment of tuberculosis. James A. Miller.

Apr. 15—Useful drugs in clinical practice. Lewis K. Neff.

Apr. 22—Contagious diseases. Shirley W. Wynne.

ORANGE COUNTY

The Orange County Medical Society held its annual meeting on December 15 in the Goshen Court House. The retiring president, Dr. Hoyle, devoted his brief paper to a consideration of preventative medicine.

Dr. Mace, Assistant State Inspector of Rural Schools, spoke briefly, stressing the important work which can be done by the rural school physician.

The meeting was devoted principally to a discussion of the anti-diphtheria campaign. Mr. Joseph Manahan, Executive of the Newburgh Public Health Committee, explained how, by employing modern business methods, the Newburgh Committee had "sold" the toxin-antitoxin treatment to Newburgh. He explained in detail the large organization employed in the work, and the "go-get'em" methods used. He related the part taken by the various volunteers, and then told the results of the campaign, which has resulted in the inoculation of more than 80 per cent of Newburgh children. He recommended that the system be tried in other cities.

The Society had already gone on record in favor of the State campaign, on recommendation of the committee minora.

Dr. Edward S. Godfrey, Director of the Department of Communicable Diseases, urged extension of the inoculation throughout the county.

Dr. Distler briefly spoke of work accomplished in Middletown. Dr. Thomas Gillson attributed many deaths to public ignorance of the worth of the toxin-antitoxin treatment. Dr. Hulett traced the development of the treatment. Dr. F. W. Laidlaw, district health officer, noted difficulties in opening a city campaign as compared with work in rural districts. Dr. Chappell gave practical remarks on treatment of young children. Dr. Cuddeback recounted the progress made in Port Jervis.

Dr. H. J. Shelley, Middletown health officer, reported that, granting good luck from now until January 1, Middletown will have completed its first diphtheria-less year on record. Not one case has been reported during the year.

Dr. J. D. Mars told of unusual progress made at Florida, where the work has been under way for three years. At the completion of the drive in the near future, he said, 95 per cent of the children within three miles of the village will have been inoculated.

Dr. Joseph S. Lawrence, executive secretary of the State Medical Society, declared that in the last analysis the prevention of diphtheria rests upon the practicing physician, and to him falls the duty of being medical missionary. The Newburgh success, he said, resulted from the cooperation of the public with the physicians. Similar results may be accomplished elsewhere if the public will come half way, he stated.

In accordance with the resolution approving the campaign, Dr. Northway-Meyer, the new president, appointed the following committee to speed the work in Orange County:

Drs. L. G. Distler and Thomas L. Gillson of Middletown; E. G. Cuddeback of Port Jervis; Charles E. Townsend of Newburgh, and W. W. Davis of Chester.

The following officers were elected for the year 1927:

President, Dr. Oscar N. Meyer, Middletown; vice-president, Dr. Harry F. Murray, Port Jervis; secretary and treasurer, Dr. H. J. Shelley, Middletown; board of censors, Dr. M. A. Stivers and Dr. L. G. Distler of Middletown, Dr. W. H. Snyder, Newburgh, Dr. E. G. Cuddeback, Port Jervis; State delegate, Dr. J. B. Hulett, Middletown; alternates, Dr. A. B. Chappell of Middletown, and Dr. J. D. Mars of Florida.

ONONDAGA COUNTY

The regular meeting of the Onondaga County Medical Society was held in the Hiawatha Room of the Onondaga Hotel, Syracuse, on the evening of Tuesday, December 14th. It began at 6:30 o'clock with a dinner at which about fifty members were present. Over one hundred were present at the business and scientific session that was held after the dinner.

The following officers were elected for the year 1927:

Dr. C. E. Coon was elected president. Other officers are: Dr. John G. Buettner, vice-president; Dr. George M. Retan, secretary; Dr. Gerald Cooney, treasurer; Drs. H. E. Burdick and Dr. N. P. Sears, censors; Dr. Thomas P. Farmer, delegate to the state convention; Drs. Clyde O. Barney and F. S. Wetherell, alternates; Drs. H. B. Pritchard and Brooks W. McCuen, delegates to the fifth district branch convention.

Dr. George M. Fisher, President of the Medical Society of the State of New York, spoke in praise of the successful culmination of the drive by the Syracuse Memorial Hospital to raise $2,500,000 for the establishment of a new building on University Hill just west of the campus. This building will be a part of the Syracuse University Medical Center. The hospital will be closely affiliated with the University and Medical School and the facilities will be available for teaching. It will also be available for the treatment of sick students.

Further plans were announced to build a contagious disease hospital for all infectious diseases and also a psychiatric hospital, both of which will be affiliated with the University Medical Center.

The scientific paper of the evening was given by Dr. Francis Carter Wood of the Crocker Institute for Cancer Research, New York City, on the subject "The Blair-Bell Lead Treatment for Cancer." He developed the point that while the treatment may have virtue, no treatment has been found efficacious in all cases, or can be used in any case with a reasonable hope of recovery.

SENECA COUNTY

The semi-annual meeting of the Seneca County Medical Society was held at the Willard State Hospital on October 14th. The following officers were elected for the year 1927:

President: Dr. L. A. Gould, Interlaken; Vice-President, Dr. E. P. McWayne, Fayette; Secretary-Treasurer, Dr. J. N. Frost, Waterloo.

The Society went on record as being in full sympathy with the State Anti-diphtheria Campaign. The report of Dr. L. W. Bellows, chairman of the Committee gathering the Historical Data of the Society, was accepted and it was decided to publish this in book form. This report covered a history of the Seneca County Medical Society from 1810 to 1926 inclusive, biographies of Seneca County physicians from 1792 to 1926 inclusive, 282 biographical sketches and notes, history of Willard State Hospital, and 55 biographies of its resident physicians, history of Seneca Falls Hospital from its founding, and the history of the Waterloo Memorial Hospital. It was decided to place a copy of the book in each public library in the county and also one in the State Library.

The scientific session followed an excellent dinner presided over by the host, Dr. R. M. Elliott, Supt. of Willard State Hospital. The principal address was given by Dr. William H. Mitchell, of Rochester, on "Gynecology." Dr. John A. Lichty, Supt. of Clifton Springs Sanitarium and President of the Ontario County Medical Society, was the guest of the Society and joined in the discussion of Dr. Mitchell's paper.

CHAUTAUQUA COUNTY

The Annual Meeting of the Chautauqua County Society was held at the White Inn, Fredonia, N. Y., on December 15, 1926. The following officers for 1927 were elected:

President, Dr. W. D. Wellman, Jamestown; 1st Vice President, Dr. J. F. Foss, Dunkirk; 2nd Vice President, Dr. B. S. Swetland, Brocton; Secretary, Dr. Edgar Bieber, Dunkirk; Treasurer, Dr. C. E. Hallenbeck, Dunkirk.

Dr. W. D. Johnson of Batavia spoke on "The Surgery of the Handicapped Patient."

DIAGNOSIS OF AMAZEMENT

The New York *Herald Tribune* of December 11 has an item which conforms to all the standards that make news interesting. Two manhole covers at Seventh Avenue and Twenty-second Street blew off, each carrying a person with it. The first one carried a woman with it twenty feet into the air according to her own estimate, and only ten according to witnesses; but at any rate both the cover and the woman's leg were broken, as might have been expected, and therefore one element of the unusual was lacking in that item of news.

The other manhole cover ripped a man's right trousers leg from hem to waistband and turned the pocket wrong side out. A roll of fifty dollars that was in the pocket was never found,—at least no one admitted seeing it.

"The explosions coming within a minute," said the account, "caused a good deal of frightened running about, and in the calm which succeeded, the gathering of a crowd which taxed the resources of the police. Ambulances, fire engines, the police emergency trucks, and the emergency wagons of the gas company, the electric light company and the telephone company were soon on the spot." All this, too, is commonplace news, for a New York crowd gathers at the least excuse.

Physicians will find the most interesting items to be the closing sentences: "Mrs. C. who had a broken leg, a scalp wound and possibly internal injuries, was taken to Bellevue Hospital. Mr. C. was treated for amazement and went to a tailor for repairs."

Amazement was an original diagnosis, and the reporter who made it did better than he probably realized. If the patient met an ambulance chaser, his amazement probably deepened into shock, and the loss of his trousers and fifty dollars caused mental anguish which could be soothed only by a verdict of ten thousand dollars. That is often the final stage of an accident whose only tangible effect is an amazement which in former days the victim would capitalize in only a thrilling story often told to incredulous listeners.

CANCER REMEDIES

The search for a cancer cure will be stimulated by an offer of $100,000 in prizes made by William Lawrence Saunders, Chairman of the Board of the Ingersoll-Rand Company. One half the sum will be given to the discoverer of the nature of cancer and the rest for a cure. The New York Herald Tribune of December 17, commenting on the offer, says:

"The prizes, which are to be awarded by the American Society for the Control of Cancer, will not appreciably stimulate research work on the disease which is now going forward in various institutions at a cost much greater than the amount of the award, those interviewed said. As a practical method of exploding bogus cures and stimulating interest in the cancer problem they consider Mr. Saunders' proposition well worth while."

The article quotes Dr. Francis Carter Wood, Vice President of the American Society for the Control of Cancer and head of the Crocker Research Laboratory at Columbia University, as saying: "Doctors can now demand that quacks come forward and submit to an investigation or else forego their claims." But Doctor Wood was quoted as saying that he did not expect to live long enough to see the discovery of either the cause or the cure of cancer. On the other hand Dr. David Stewart is quoted as saying that he believed the cure for cancer would be discovered soon and by a physio-chemist or bio-chemist rather than a doctor.

SCORPION STINGS

The New York *Herald Tribune* of December 17 carries a lurid tale about scorpions which is ascribed to the Los Angeles Times. The article says that a Mexican investigator has perfected a serum "to combat the deadly bite of the scorpion which annually claims hundreds of lives, particularly among children." The article goes on to say:

"The scorpion is found most prevalent in the Huichol and Cora districts of the State of Nayarit, and as far as Durango City, in the State of Durango. Some sections of this district literally swarm with the insects, and cases have been recorded where small villages have been abandoned because of the great hordes of scorpions that have descended upon them.

"A woman of this city who had been stung by one of the insects and was already suffering the horrible pains and spasms that precede death from the bite, was administered a dose of the new serum. Immediately thereafter she exhibited signs of improvement, and in a few hours was pronounced out of danger."

This will be news to physicians. The scorpion "bites" with a sting in the end of its tail. Its venom varies in strength from that of a wasp to a virulency that may possibly cause death in an extremely susceptible person. It has been well known that infections of the venom will produce immunity. Possibly scorpions may be so plentiful in certain parts of Mexico that a supply of serum would be desirable. However, the newspaper story bears the evidences of an exaggerated unscientific tale.

TWO POEMS

The New York *Herald-Tribune* devotes a space to verses entitled "More Truth Than Poetry," by James J. Montague. The issues for December 9 and December 23 contain the following verses which are both truth and poetry, and are worthy of Hygeia:

To A Microbe

No fear feel I, I merely smile,
When threatened by a crocodile.
The tiger cannot make me run
For I'm a man and have a gun.
But you, a frail and tiny germ,
When on my trail can make me squirm.
When in your flight you crave repose
Perhaps you light upon my nose;
You make the spot forthwith your lair
And I do not observe you there.
Your offspring hatch a millionfold
And then I catch a frightful cold.
I'm but a man, you realize;
You take advantage of your size
On me to light unfelt, unseen,
Malignant mite, to vent your spleen.
And so I say to you, "For shame!
Why can't you play an honest game?"

Dumb Creatures

The dinosaur was bigger than
The largest type of motor van.
He might have crushed a Ford beneath
His double rows of jagged teeth.
A single wallop of his tail
Would have destroyed a county jail.
A microbe is so very small
That he cannot be seen at all.
He has no teeth, he has small strength
And very little breadth or length.
But in a long forgotten war
He fought and licked the dinosaur.
Which proves, if you and I were wise
We would not think so much of size.
But if a dinosaur strolled by,
In shuddering terror we should cry,
And through a roaring river swim
So we might get away from him.
But placidly the microbe stands
Upon our lips or ears or hands—
And though we're told that he is there
It's very little that we care;
And never shudder with affright,
Which proves that we're not very bright!

THE SPAN OF LIFE

Statistics show a constantly lengthening span of human life. The present average at death in the United States is 56 years, an increase of 5 years since 1910. The New York *Times* of October 15 comments editorially on this increase, and says:

"Health ideals seem to have taken hold in the United States judging from the number of dietitians who write books and the millions who buy them. Read as eagerly as fiction are stories of how to live long extracted from centenarians, of whom there were more than 2,000 in the country in 1920. Hygiene has ceased to be tiresome It has become personal. Men of 70 affect juvenility. A weighing machine may be found in most bathrooms. Diet is the order of the day. Fewer and fewer are they who dig their graves with their teeth. Everybody is wise about the alphabetical vitamins.

"Preventive medicine is interpreted by the well to be simple food, fresh air and exercise. For the sick, clinics and 'health centres' abound. Frequent examinations to determine whether anything is wrong with the human machinery are now the fashion. After middle age men and women are making Death keep his distance and are living useful and happy lives. 'Give me health and a day and I will make the pomp of emperors ridiculous,' said Emerson."

The object of the Medical Society of the State of New York is that the people "might have life and that they might have it more abundantly."

BOOK REVIEWS

PEDIATRICS. By Various Authors. Edited by ISAAC A. ABT, M.D. Volume 8. Octavo of 1102 pages, with 388 illustrations, and General Index to Volumes 1 to 8. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $10.00 per volume. Sold by subscription.

This eighth volume is a fitting climax in bringing to a close this pre-eminent work on the Diseases of Children, and with the General Index to Volumes I to VIII, makes its information readily available. To the specialist and to the general practitioner it should make the appeal of being the best work on the subject from the American standpoint with which the reviewer is familiar. From the mechanical standpoint the paper is good, the type is clear and easy to read, and the illustrations which are many, are distinct. From the scientific standpoint each subject is dealt with by an author who is a master in his field, and the result is a wealth of detail that makes it a storehouse of information for reference. It is no less a guide in the matter of treatment which is taken up in the same complete way, and the General Index makes it easy for the busy man to use it in a practical way.

Specifically Volume VIII deals with Diseases of the Skin, Edited by Oliver S. Ormsby, M. D., who has seven other skin specialists as his collaborators; Ear Diseases in Childhood, by George E. Shambaugh, M. D.; Ocular Diseases of Infancy and Childhood, by Casey A. Wood, M. D.; Hospitals for Infants and Children, by John M. Dodson, M. D., and Richard E. Schmidt, F. A. I. A.; Medico-Legal, by James P. Simonds, M.D.; Tumors of Infancy and Childhood, by Oscar T. Schultz, M. D.; Encephalitis, by Leslie B. Hohman, M. D.; and Animal Parasites, by Henry Baldwin Ward, Ph.D., Sc.D. Of these the articles on Diseases of the Skin, Hospitals for Infants and Children, and Tumors, are especially noteworth. ARCHIBALD D. SMITH.

A MANUAL OF NORMAL PHYSICAL SIGNS. By WYNDHAM B. BLANTON, B.A., M.D. 12mo. of 215 pages. St. Louis, C. V. Mosby Company, 1926. Cloth, $2.50.

Theoretically, a manual of normal physical signs might seem a refinement for the beginner and an implement which would add to this troubles rather than afford a means for simplifying his work.

But the days of simple inspection, palpation, percussion and auscultation have passed away and it now requires something over 200 pages, of rather close printing, to outline the procedures which are to be carried out for a complete physical examination. This alone is sufficient testimony to the increases in number of details which confront the beginner, as compared to the days of Austin Flint.

Dr. Blanton has given a very complete outline of these details, beginning with the discussion of the mechanics of physical signs, amplifying sufficiently, but never beyond the outline stage.

At the end of the chapters, there are notes for further reading, and an adequate index is provided.

The manual will be of very great value for the physician who needs to make, for his daily use, a new and more complete outline for routine physical examination.

L. C. JOHNSON.

SURGICAL ANATOMY OF THE HUMAN BODY. By JOHN B. DEAVER, M.D., Sc.D., LL.D., F.A.C.S. Second edition in three volumes, thoroughly revised and rearranged. Volume I. Scalp, Cranium, Brain, Face, Mouth, Throat, Organs of Special Senses. Quarto of 551 pages with illustrations. Philadelphia, P. Blackston's Son and Company, 1926. Full fabricoid, $36.00, payable $12.00 upon receipt of each volume.

Some twenty-six years ago there appeared the first edition of "Surgical Anatomy" by Dr. John B. Deaver. The work was in three volumes, carefully compiled, beautifully illustrated with mostly original drawings and apparently complete in every detail. Despite the fact that this original work is fairly modern and useful today, the author undertook the labor of revision with the idea of better fitting the new edition to the advances of modern surgery and at the same time to rearrange the contents into a more systematic scheme,

The first volume of the new edition is now with us. It contains the surgical anatomy of the scalp, cranium, brain, face, mouth, throat and organs of special senses.

The surgeon or student can see at a glance the advantage of the new arrangement when compared with the first edition. For example the entire head is complete in the first volume. In the first edition it was scattered between volumes one and two. Many parts on the brain and spinal cord have been rewritten. As the modern medical student is more familiar with the Basle anatomical nomenclature the English equivalents have been added in parenthesis throughout.

This work has always been regarded as a most substantial contribution to medical literature. An enthusiastic welcome is due to this new edition from the pen of the master teacher and surgeon.

R. F. BARBER.

CLINICAL PEDIATRICS. By JOHN LOVETT MORSE, A. M., M. D. Octavo of 848 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $9.00.

Any one who knows Dr. Morse would expect a textbook from his pen to be eminently practical and his product runs true to form. He is a man of wide and long experience of definite ideas, and a clinician with many years of teaching experience. His opinions are therefore of great weight, and his statements concise and to the point. He makes excellent use of his long years of practice in the field of pediatrics and his text gives expression to his individual views in a manner which is quite individual and characteristic.

He purposely avoids complicated laboratory methods and microscopic pathological changes, and confines his writing to the field which is indicated by his chosen title, namely, "Clinical Pediatrics."

The now rather voluminous literature of that division of medicine devoted to the infant and child is decidedly richer by the advent of this volume. The illustrations and charts are well chosen and enhance the written pages to a satisfying extent.

As a common sense and helpful contribution to the great work of rearing a better generation of citizens, Dr. Morse's book is very opportune and welcome.

WM. HENRY DONNELLY.

HAY FEVER AND ASTHMA. A Practical Handbook for Hay Fever and Asthma Patients. By RAY M. BALYEAT, A.M., M.D. 12mo. of 198 pages with 27 illustrations. Philadelphia, F. A. Davis Company, 1926. Cloth, $2.00.

This is a little handbook intended for the patient suffering from the above mentioned diseases and consequently it is couched in plain non-technical language.

There can be no question but that the more the general public, and especially patients afflicted with these baneful conditions, know about their origin and their rational treatment the better will be the results of both preventive and curative methods.

The relation of plants, animals and fowls to the anaphylactic group of diseases deserves broadcast dissemination so that the patient and his family circle may cooperate intelligently with the physician.

The anatomy and physiology of the nose and bronchial tubes is outlined in the text, the methods of diagnosis and of treatment are simply described in such a way as not to confuse the layman with intricate technical terms.
Wm. Henry Donnelly.

Handbook of Medical Electricity and Radiology. By James R. Riddell, F. R. F. P. S. 12mo of 239 pages with illustrations. New York, William Wood and Company, 1926. Cloth, $2.75.

Although written for the student this book admirably meets the requirements for a brief yet thorough summary of medical electricity and radiology. The simple physics of the subject is very well presented. The chapters on radiology are of particular interest as likewise are those devoted to treatment with carbon dioxide snow, light and radium. The latter is right up-to-date and includes the latest technique of emanation therapy. The description of methods used and deductions therefrom in electrical nerve and muscle testing is particularly clear and readily understood.
Jerome Weiss.

Radiotherapy in Relation to General Medicine. By Francis Hernaman-Johnson, M. D. 16mo of 211 pages. London and New York, Oxford University Press, 1926. Cloth, $1.75. (Oxford Medical Publications.)

The general awakening and inevitable back-swing of the pendulum is again consciously and subconsciously emphasized in relation to many benign and malignant growths which for the past few decades have been assigned purely to surgery.

The physics of radiation is well discussed and the value of the so-called hard and soft rays properly evaluated. The brochure is intended for the general practitioner and clearly outlines the many pathological avenues through which radiation has or will probably prove to be the eventual leader to happier results.

The author favors this form of treatment, tempered with surgery at times, in malignancy stressing carcinoma of the breast and cervix uteri.

The Erlangen hypertensive treatments are justly condemned and broken dosage within the point of toleration favored. The value of the Rays in selected thyroid states is given and many other conditions such as joint and glaudular tuberculosis, numerous skin lesions, rickets, neuritis, etc., are described in relation to their respective reactions to this type of treatment.

The book is well written in breezy style, interesting, and well earns a position of distinction in the select Medical library of the specialist or general practitioner.

The author stresses the difference between ownership of a radiotherapeutic apparatus and proper use of same guided by intelligence and experience as folows: "That a man possesses certain surgical instruments is no guarantee that he can use them to advantage; but it appears to be assumed that, in some miraculous way, X-rays either succeed or fail, without reference to any directing mind."
Milton G. Wasch.

Practical Ultra-Violet Light Therapy. A Handbook for the Use of Medical Practitioners. By T. Clyde McKenzie, M. B., Ch. B. and A. A. King, Octavo of 108 pages, with illustrations. New York, William Wood and Company, 1926. Cloth, $2.50.

An intensely interesting contribution to the science of Ultra-Violet Light Therapy. A very profound study of the subject has been made by the authors, and their original theories on dosage and the action of light are advanced. Of particular interest is the account of a reliable method for determining the intensity of the ultra-violet light produced or used. The methods of dosage described are in many respects unique and merit careful consideration. The work as a whole is highly commendable and a valuable aid to the better understanding of an extensive and comparatively new subject.
Jerome Weiss.

The Human Cerebro Spinal Fluid. An Investigation of the Most Recent Advances as Reported by the Association for Research in Nervous and Mental Disease. Editorial Board, Charles L. Dana, M. D., and others. Octavo of 568 pages, with 77 illustrations. New York, Paul B. Hoeber, Inc., 1926. Cloth, $10.00. (Association for Research in Nervous and Mental Disease). Volume IV (1924).

This unusual book is the result of "An Investigation of the most recent advances" in the study of the Cerebro Spinal Fluid, as reported in papers, read before the Association at the December, 1924, meeting. It is the fourth volume of a series of research publications issued under the same editorial supervision.

The contributors, some 38 in number, include the names of the majority of those whose work has been conspiciously prominent in this field of study. It is only necessary to mention Aycock, Ayer, Christensen, Fordyce, Kolmer, Neal and Solomon to show the standing of the authors.

The material presented represents the most up to date information on the subject and has heretofore been available only in the current periodicals. The volume is in reality a symposium on the subject and includes the current interpretation of both the physiological and pathological aspects of the Cerebro Spinal Fluid. The clinical contributions were based on over five thousand recorded examinations of the fluid from every conceivable pathologic state and include almost all known clinical conditions.

This book is an indispensable reference work for all those interested in the field of investigation which the examination of the Cerebro Spinal Fluid offers in the himself with the knowledge accumulated to date on the for the general practitioner who desires to familiarize diagnosis and therapy of disease. It is a useful book for the general practitioner who desires to familiarize himself with the knowledge accumulated to date on the subject. The publishers are to be congratulated on the excellent appearance of the volume they have produced.
J. R.

The Duodenal Tube and Its Possibilities. By Max Einhorn, M.D. Second edition, revised and enlarged. Octavo of 206 pages, with illustrations. Philadelphia. F. A. Davis Company, 1926. Cloth, $3.00.

This treatise is a valuable addition to the literature of gastro-enterology. Four chapters are devoted to the history, diagnostic import and the Therapeutic Uses of the Duodenal Tube. Particular attention is paid to the normal duodenal contents (duodenal juice, bile and pancreatic juice). Chapters V and VI deal with instruments, other than the tube, for the pylorus, duodenum and small intestine; thus, these chapters should not be included in this book.
B. M. Eis.

Medical Gymnastics and Massage in General Practice. By Dr. J. Arvedson. Second edition. Translated and edited by Mina L. Dobbie, M. D. 12mo of 284 pages. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $2.50.

A book written for the medical gymnast, but one of great value for the physician also. It describes useful gymnastic treatment for many conditions in which results ordinarily would not be sought except by other means. The limit of gymnastic treatment is clearly defined in each case, and the semblance of the "cure-all" is carefully avoided. There are interesting chapters devoted to the various groups of organs and parts of the body and their pathology.
Jerome Weiss.

OUR NEIGHBORS

THE DOCTOR'S WIFE

The State Medical Association of Texas has a Woman's Auxiliary for whose benefit the Texas Journal of Medicine runs a department. Most physicians of New York State have wives and will be interested in the qualifications which Mrs. Rogers Cocke of Marshall, Texas, writing in the November issue of the Journal, considers necessary for the model wife of a typical doctor.

"The doctor's wife should be an expert cook, especially expert in scrambling eggs, so when the belated husband comes home hours after luncheon or dinner, he will always be assured of a wholesome meal.

"She should be a good telephone girl, much better than the average; never get numbers wrong or messages mixed.

"The doctor's wife should know all the home remedies and most of the other kind, as she is called upon to know what to do for everything from infantile colic to senile dementia.

"She should be sympathetic, kind, and tactful, and a model of patience, or she will be certain to offend.

"The doctor's wife should never express an opinion, even of her own, or she will be quoted as having said the most impossible things about the private affairs of her husband's patients.

"It is necessary that she be a resourceful traveler, and know how to find her way around in all the cities of the United States, if she cares to go to medical conventions. This is very essential, or she may cause her doctor some annoyance.

"Mrs. M.D. must be an excellent manager. Doctors are remarkable men, most of them remarkably poor business men, so the wife must run the house, the family and the car, on the budget system; then make safe 10 per cent investments, besides.

"She should be a good nurse, an ambulance driver, a model mother, whether she has any children or not, a club woman, a genial hostess, a golfer—not necessarily a good one, that is asking too much—a bridge player, a weather prophet, a well read woman, a well dressed woman, an attentive listener, a cheerful liar, and a Christian—if possible.

"Otherwise, the requirements of a doctor's wife are few."

THE MEDICAL RESERVE OFFICER OF THE ARMY OF THE UNITED STATES

A modern army is constructive as well as destructive, and about five per cent of its soldiers are engaged in the medical department for the promotion of health, vigor and efficiency of man power.

A large proportion of officers of the army are physicians, and they occupy positions as a powerful and as honorable as those of the infantry and artillery. Their duty is the application of medical measures under the primitive conditions of field operations, and any doctor will be a better physician because of his service in the Army.

Commissions in the Medical Reserve Corps of the United States Army are open to physicians who can pass the required physical tests. The *Journal of the Medical Association of Georgia* discusses the reserve corps as follows:

"In Atlanta we have about 40 doctors and dentists who have organized themselves into a medico-military society that meets once a month and hears lectures from competent medical officers upon the duties of the doctor in the forces. These are most interesting and such groups may readily be formed in any community. Lectures will be supplied to them and all information as to the Department Correspondence Classes will be given helpfully. One learns not only those things in medicine and hygiene that are of value in the Army but he gets a new slant upon these very subjects in private life that are valuable in his work.

"Once a doctor has secured a commission he has the opportunity of going to Training Camps each year for his further study and gaining acquaintance with his fellow officers in the outfit to which he may have been assigned. This is not compulsory. It is a privilege that the officer will enjoy when he has learned of it. He is paid for his time as is any regular officer of like grade.

"I said that we constitute the first line of defense. I mean that so soon as an emergency has been declared by Congress and we are called to the Colors, we must begin the physical examination of the troops called at the same time. This is called processing and it is the first and most important part of mobilization after the men have been called. It depends for its success upon us and our knowledge of the peculiar things that

(Continued on—adv. page xv)

THE MEDICAL RESERVE OFFICERS OF THE ARMY OF THE UNITED STATES

(*Continued from page* 38)

must be done well and quickly in order to make the Army really available.

"Every doctor in the State is urged to give consideration to this matter and to proffer his services if he can do so. The older men can set a good example even if they feel that they cannot give the same amount of time to the training that the younger men can do. The younger men will find the work entertaining and the associations thus built up, pleasant. They can feel that while they are gradually acquiring a familiarity with the duties they have assumed, they are being excellent citizens and insuring an early availability of the great forces of the country if they should be needed. The late war showed that an Army cannot be raised over night, that it must consist of more than a great crowd of men. The men must be trained and know their business before they are effective. We should never find ourselves again in the predicament we were in when we had to wait a year before we knew enough to enter battle. Medical men with their wonderful influence in the communities can build up by precept and example the wholesome idea of trained military national defense, without militarism itself, better than can any other set of men.

RICHARD R. DALY,
Lieut. Col. Med. Res. U.S.A.

OLD AGE

Geriatrics is the treatment of conditions at the extreme of life opposite to that embraced in pediatrics. Old age is not a disease, but is a condition in which the person and not the disease is to be treated. Its analogy to pediatrics is close. Just as the practice of pediatrics is largely hygienic and preventive measures, so the practice of geriatrics consists in making the application of those measures which will render the patient comfortable which the natural functions of the body decline in efficiency.

The subject is considered in an editorial entitled, *De Senectute* in the November issue of *Colorado Medicine:*

"Cicero in his day attempted to palliate the burdens and infirmities of the aged by developing for them a wholesome type of thought regarding such matters. With the passing of centuries the need for such palliation has in no wise decreased. In fact, due to the diligence with which medical science has been applied, the span of life is constantly lengthening. This of course means that an increasing number escape the accidents of life to pass into the decay of the senium.

"Perhaps a revival of a philosophy similar to that Cicero imputed to the aged Cato would be a good thing. The mental attitude with which

(*Continued on page* 40)

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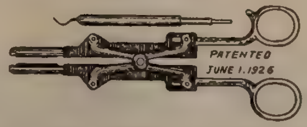

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many people approach and live the span of advanced years frequently needs correction. Unless this is done, the most skillful therapy directed toward the physical ills is likely to be of little value.

"But there are certain diseases peculiar to the aged just as truly as there are diseases peculiar to infants. There are vascular changes affecting the brain, heart, kidneys, pancreas and other organs; there are also atrophic and malignant changes of tissues with their resultant symptoms; skeletal muscular and sensory changes. These processes of degeneration and decay have a definite pathology and pathologic physiology differing markedly from the accidental and exogenous diseases of earlier years.

"The point is this, that preventive measures of medical men have created new problems in therapy. Special thought is, therefore, desirable in the organization of therapeutic measures peculiarly adapted to the infirmities of the aged. Certainly much can be done to lessen the load of senile changes. Probably there exists no good reason for the creation of a distinct specialty of geriatrics, but there is a growing need for the development of the art of medical practice effective in alleviating the physical and mental handicaps of senile origin."

CONTRASTING OFFICES

The editorial comments of the December issue of the Journal of the Michigan State Medical Society contains an article entitled "Thoughts while visiting about," which reads:

"Doctor's reception room revealing rare specimens of antique furniture—broken. Table littered with year old, dirty magazines, dust in corners. Doctor's desk a mass of pills, bottles, circulars, cigar stub, unopened journals and a dirty blotter. Bottles of urine in medicine closet. Soiled dressing and cotton in open waste basket. Speculums and female treatment instruments on window sill. Dirty pillow on examining table.

"This in contrast with the most modern, well-kept, neatly furnished offices of another doctor just across the street. A group of rooms labeled 'Clinic.' A registration desk where patients' civic data is obtained, as also fees. A lot of record cards supposedly containing histories but the recorder could never qualify in a history department—it's an art. Everybody from colored maid to chief robed in white—gowns are great concealors of physical anomalies. Odor of ozone from sputtering vibrators, diathermy and 'lights' at so much per treatment and rare is the case that doesn't need some form of light or electric treatment—if properly farmed. Absence of array of cathartic pills—evidently they are *passe*—the thought persists from the old days that a good bowel movement often still achieves results. A suggestion for Clinics in a Dietary department to give much needed instructions as to how and what to eat.

"Oh, well, sometimes we hope a new lay organization will be formed devoting its efforts to reforming doctor's reception and consultation rooms. In the meantime you might call in the local painter, furniture and carpet men and spruce up your old dump. Office girls chewing gum, answering phone loud enough so all in hearing may know that the doctor is still at the hospital operating, or is in Athens in consultation, or is called to see Oudini. A manual on 'office girl's' imparting advice on style, technic and effective methods should be forthcoming from a facile pen. A substitute picture for that of 'The Doctor' should displace this time worn wall adornment of pristine glory. So, too, the advertising clock stating '[illegible]

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Syracuse, N. Y., January 2, 1927

Dear Doctor:

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MORTALITY IN INDIA FROM WILD ANIMALS

Primitive man doubtless found his greatest source of terror to be wild animals—the bears and tigers, which infested his cave dwellings, the mastodons, which devastated his clearings, the snakes which seized his children, and the crocodiles which awaited him in the water. All these are still a deadly menace in some parts of India, as is shown by the following extract from the London letter in the November 20th issue of the *Journal of the American Medical Association.*

"That the toll of human life that wild animals and venomous snakes take in India every year is decreasing is shown by the annual returns for 1925, which have now been received from local governments and administrations.

"Tigers are again responsible for the largest number of deaths. The total number of persons returned as killed by wild animals in British India during the year is 1,974, as against 2,587 in the previous year and 3,605 in 1923. Tigers were responsible for 974 of these deaths, leopards for 191, wolves for 265, bears for 82, elephants for 78 and hyenas for 6.

"Madras returned the highest number of deaths caused by tigers, the Central Provinces and Berar the highest number caused by leopards, the United Provinces by wolves, Bihar and Orissa by bears, and Assam by elephants. Of 388 deaths caused by other animals, 73 are assigned to wild pigs and 98 to crocodiles and alligators.

"The highest number of deaths caused by all wild animals occurred in Madras (464), Bihar and Orissa, the United Provinces and the Central Provinces and Berar coming next in order.

"The mortality attributable to elephants showed a marked increase in the provinces where the animals are mostly found. There has been a noticeable decrease in deaths caused by all other animals, except bears, in almost all the provinces.

"Deaths from snake bite fell from 19,867 to 19,308. Decreases occurred in Madras, the United Provinces, the Punjab, Burma, Bihar and Orissa, the Central Provinces and Berar and Assam, but Bombay and Bengal have reported slight increases during the year under review.

"Wild animals numbering 21,605 were reported to have been destroyed, of which 1,609 were tigers, 4,660 leopards, 2,485 bears and 2,361 wolves. A sum of 155,667 rupees was paid in rewards, against 169,765 rupees in the previous year. The number of snakes destroyed in India proper decreased from 47,106 to 41,004, and rewards paid for their destruction were 1,579 rupees, as against 1,403 rupees in the previous year."

THE SMALLPOX MENACE

The London letter in the November issue of the American Medical Association comments on smallpox in England and says:

The Smallpox Menace

"In a letter to the press, Sir Leonard Rogers, an authority on tropical medicine, comments on the increase of smallpox in the North of England and the recent cases in London, which should awake the country to the fool's paradise in which we are living in consequence of neglect of vaccination. The following official figures show the rapid increase of the disease: 1921, 315 cases; 1922, 973; 1923, 2,485; 1924, 3,765; 1925, 5,354. The very low mortality from the disease recently in this and other countries has lulled the public into a false sense of security. The influence of such a dry season as the present in favoring smallpox epidemics was pointed out by Mr. Baldwin Latham in 1890 and has recently been confirmed in India, so everything seems ripe for the nemesis of neglected vaccination, ever since in 1907 parliament relaxed the powers of compulsory vaccination, and since then so further weakened them by administrative action as to make it more troublesome to submit infants to vaccination than to avoid it. Smallpox in a poorly vaccinated community, such as that of Great Britain today, is mainly a disease of childhood."

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THE WOMEN'S AUXILIARY IN MISSOURI

The December issue of the Journal of the Missouri State Medical Association contains the minutes of the meetings of the Women's Auxiliary of three counties of Missouri.

The Auxiliary of Gentry County held a joint meeting with the County Medical Society on October 7, and discussed ways of increasing the circulation of *Hygeia.* Plans were discussed to send *Hygeia* to the teachers of the public schools of the county.

The meeting adopted the "Seymour" plan of disease prevention advocated by Dr. M. M. Seymour of Saskatchewan. The plan consists in intensively educating the public regarding a single disease at a time. The subject in September and October will be diphtheria; in November and December, smallpox, and in January and February, typhoid fever.

The meeting also discussed the popular distribution of the preventive literature prepared by the Metropolitan Life Insurance Company.

The Holt County Auxiliary was organized on November 5th, and plans for popular medical education were formed in cooperation with the county nurse.

The St. Louis Medical Society Auxiliary met on November 3 in the new building of the St. Louis Medical Society for a social evening. Plans were discussed for raising funds for the improvement of the building.

THE WOMEN'S AUXILIARY IN VIRGINIA

The Woman's Auxiliary Medical Society of Virginia held its annual meeting on October 13, in Norfolk, according to the December issue of the Virginia Medical Monthly. The principal speaker was Dr. Olin West, Secretary of the American Medical Association, who urged the Auxiliary to stand behind the Health Department and especially to see that each doctor promptly reported each birth and death. He said that the Auxiliary would find its best field of usefulness in rural districts, for in them there is a lack of other organizations.

Mr. Frantz Naylor, President of the Women's Club of Norfolk, gave an outline of the public health work of the Auxiliary in the Club and said that the auxiliary and club had already carried on many activities along the lines suggested by Dr. West.

Standing Committees were appointed on Education and Publicity, Hygeia, Legislation, Organization and Parliamentary Practices.

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MEDICAL ASPECTS OF THE TREATMENT OF ABSCESS OF THE LUNG*

By JAMES ALEXANDER MILLER, A.M., M.D., NEW YORK, N. Y.

THE treatment of acute pulmonary abscess is primarily medical. After a period involving a good deal of experimentation, surgeons and internists alike have come to agree that surgical operation during the acute stages of abscess of the lungs is a very hazardous procedure. Consequently, when cases of abscess of the lung are seen early in the disease they belong in the domain of internal medicine. This does not mean that abscess of the lung may not be a surgical condition. It often is, and the ideal procedure is to have any case followed along coincidently by both surgeon and physician, in order that the progress of the condition may be watched carefully from both points of view and the indications for change of treatment, which may involve a shift of responsibility from the internist to the surgeon, may be recognized and the best opportunity for recovery thus afforded the patient.

It is interesting to note that the literature contains reference to several methods of medical treatment, for all of which are claimed excellent results. On the other hand, not a few surgeons who have written on this subject have felt that the responsibility was primarily a surgical one and it is only until late years that any general recognition of the primary responsibility of the physician has prevailed.

The experience upon which this present presentation of the treatment of abscess of the lung is based has been obtained over a period of five years in close cooperation between Dr. Adrian V. S. Lambert and me, (1) during which time more than one hundred cases of abscess of the lung have been jointly studied. As a result of this experience a rationale of treatment has been developed which is partly medical and partly surgical and which we believe has certain advantages over the special forms of treatment which have hitherto been advocated.

The technique which we have jointly worked out is best termed a "system of management" rather than a method of treatment, for we are impressed by the variability of response of these cases to any given therapeutic method, and by the frequent necessity of modifying or combining various methods in order to obtain best results in any given case. We have found it futile to accept any one method as generally applicable but in the study of our cases we have been able to employ all of the usually recognized methods to more or less advantage, and we have therefore no new method to suggest but, rather, a method of approach which has left us free to apply any or all known methods according to the indications presented. It is the study of the indications which we would particularly emphasize.

All cases of abscess of the lung when first presented for treatment we regard as medical cases and they are put under strictly medical supervision for careful study involving physical and X-ray examinations, careful measurement of the amount of the sputum, the character of the cough which produces it, the bacteriology of the sputum, the behavior of the temperature, and particularly the progress of all of these factors during at least one week of careful observation.

Bed Rest

The primary and basic treatment is absolute bed rest combined with postural drainage. It is only recently that we have come to what we now believe is a proper appreciation of the value of prolonged bed rest in the treatment of acute lung abscess. We were influenced considerably by Pritchard's (2) valuable contribution to this aspect of the subject and have come to agree very heartily with his conclusion, and we feel that this part of the treatment has been too much neglected, particularly after the patient may become nearly or entirely afebrile. During the febrile period bed rest is obviously indicated and probably universally employed. In a considerable number of cases the fever subsides more or less promptly even when drainage through a bronchus is inadequate, and it is quite common to note a consistently normal temperature without a correspondingly satisfactory decrease in cough and expectoration or improvement in the character or extent of the lesion as shown by X-ray. Under such circumstances the general condition of the patient is naturally better and often confinement to bed becomes irksome, but we believe that persistence in bed rest until the cough, expectoration and X-ray findings, as well as the temperature, all indicate the clearing up of the necrotic process in the lung is most important and will materially assist the postural drainage treatment which is combined with it in obtaining a so-called medical cure. Moreover, we believe that rest plays a valuable role for many weeks after all symptoms have been absent, especially if the X-ray densities have not absolutely cleared up, for in such cases relapse may occur even many weeks after the symptoms have disappeared, and we have had reason on several occasions to regret a premature discharge from hospital supervision or return to normal activities of life.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

We therefore advise a prolonged period of rest for weeks or even months of an after-cure very similar to that employed in the management of a partially arrested case of pulmonary tuberculosis. In this after-cure hard physical work or violent exercise are excluded and rest in a recumbent position is required for considerable periods of each day, these being gradually diminished and increased activity allowed until a normal degree of active life is obtained and a permanent cure is effected, but rest alone will not be sufficient in a considerable number of cases.

Postural Drainage

Cough with the expectoration of pus occurs in all cases of lung abscess in which there is a communication with a bronchus. Complete drainage of the abscess may result in this manner and a spontaneous cure thus effected in a limited number of cases. As a rule, the cough, while producing the expectoration of foul pus in large quantities, only succeeds in eliminating the amount which constantly wells up into the bronchi, leaving the abscess cavity itself still completely or partially filled with pus, with consequent increasing necrosis and collateral inflammatory reaction in the lung itself. Certain positions of the body will very frequently aid in the more complete emptying of the cavity by the cough and thus the proportion of cases cured by this natural method of drainage may be materially increased. Patients will themselves frequently note that certain positions increase the amount and ease of expectoration and these observations are often valuable guides to postural treatment.

In general, we invert the patient completely with the head hanging straight down to the floor bending at the waist over the edge of a bed. A twist of the body so as to bring the affected side to a higher level than the opposite one is often desirable. Sometimes lying on the back with the head down, with the body held in position by the bend of the knees is more effective. This can be accomplished by the reverse use of the break of a Gatch bed, or by lying over a stiff chair inverted and placed upon a flat bed. Sometimes the best results are obtained by positions which have no logical explanation as far as the location of the abscess is concerned, and we have been interested to note that upper lobe abscesses are quite as apt to drain by the inverted posture as are those situated in the lower lobes. In any event, considerable time must be spent in patient experimentation with each case to discover the best position for that particular patient.

After this has been determined, this posture is prescribed at regular intervals, usually every three or four hours at first, and is maintained for periods varying from five to fifteen or twenty minutes. The discomfort felt in the head from the inverted position quickly disappears and patients rarely complain of it after the first day or two. An observant patient soon learns from his own sensations when he needs drainage and the interval and duration of each treatment is modified accordingly.

The effect of this treatment is very striking when successful. The more complete emptying of the cavity gives a complete cessation of cough for hours at a time, allowing a very gratifying relief from the constant and harassing paroxysms which so often mark this disease. The amount of expectoration which is carefully measured and noted for each twenty-four hours, at first very materially increases and then in a few days gradually diminishes until it may entirely disappear in a week or ten days. The fever subsides and the patient is transformed from a miserable and acutely ill person to a comfortable convalescent. Many times these desirable results are only partially obtained and in still other cases no appreciable result in amelioration of symptoms is noticeable. In such cases after adequate trial it is necessary to supplement this treatment by one or the other of the other methods to be later considered.

We are accustomed to persist in this treatment for at least three or four weeks before discarding it, because not infrequently good drainage may be established quite suddenly in cases which have shown no results during the first weeks. In the evaluation of this, as well as all other methods of treatment, the comparative Roentgen-ray films are the best single guide.

This combination of rest and postural drainage constitutes, therefore, our basic method of treatment, to be first used in practically all cases, and the result obtained affords a point of approach to the consideration of additional methods which may be necessary. In our experience, about twenty per cent of all cases are cured by these methods alone.

The Administration of Salvarsan

It is pretty generally recognized that any chronic inflammatory condition in the lung, whether it be tuberculosis or a chronic empyema or pulmonary abscess, when occurring in a syphilitic patient is favorably affected by the specific treatment directed toward the underlying syphilis, and consequently in pulmonary abscess it should be an invariable rule to have a Wassermann test, which, should it be positive, would be a direct indication for the use of salvarsan immediately, even during the febrile period.

More than this, however, it is generally recognized that many of the secondary bacterial invaders in pulmonary abscess, which are responsible for the characteristically foul odor of the expectoration in this disease, are the anaerobic organisms, many of which are spirochetes. It is still somewhat of an open question as to how far these anaerobic micro-organisms are merely secondary invaders and how far they may play a direct etiological rôle in the formation of the disease. It is our own impression that the latter not infrequently is the case, but we have not yet obtained any direct evidence on this point. But whether the spirochetes are primarily the cause of the abscess or whether they are simply secondarily the cause of the production of the foul necrotic pus in an abscess caused primarily by a pyogenic micro-organism, it appears to be a fact that the use of salvarsan or neo-salvarsan not infrequently has a very favorable effect upon the symptoms of the disease. It does not appear proven that such cases should be classified as cases of spirochetosis, but inasmuch as the spirochetes play an important rôle in the development of the pathological process, any form of treatment which will eliminate them from the process is helpful and the arsenical preparations appear to offer us this opportunity. As a result, in cases where rest and posture alone do not clear up the condition, very frequently the use of neo-salvarsan in comparatively small doses beginning with three decigrams and repeating at five to seven-day intervals with increasing doses up to a maximum of nine decigrams, will very materially affect the condition of the patient favorably by clearing up the amount of cough and foul expectoration. This method of treatment is perhaps even more important in the cases which tend to become chronic where the anaerobes in the expectoration appear to be largely of the spirochetal variety.

We have no definite figures to present as to the precise result of this method of treatment alone, inasmuch as it is combined with other methods, but we are most favorably impressed with its value in a considerable number of cases.

Bronchoscopic Treatment

Our earlier experience led us to doubt the general applicability of the bronchoscope in the treatment of lung abscess. We were also impressed by the fact that some fatalities occurred and that very frequently it was a most distressing ordeal for the patient.

We have considerably modified our previous point of view in the experience which we have had through the close cooperation of Dr. Kernan in the study of many of our cases. While we cannot share the enthusiasm of some who consider the use of the bronchoscope as the most important method to be first considered in these cases, we do feel that in many it may facilitate drainage when it is not promptly established by the rest and postural plan.

We believe, however, that the possible dangers and discomforts of this method are eliminated only if it is in the hands of a very skillful operator of large experience and mature judgment. We feel that the occasional bronchoscopist should not attempt the treatment of lung abscess.

That this method in skilled hands is useful and not dangerous in properly selected cases is evidenced by the considerable experience now reported by such bronchoscopists as Chevalier Jackson (3), Lynah (4), Carmody (5), Yankauer (6), Kernan and others, by the testimony of such thoracic surgeons as Lilienthal and Willy Meyer (7) and by the experience of internists such as McCrae and Funk (8). They emphasize the importance of early treatment in acute cases and report occasional very prompt cures, often great improvement, and in chronic cases amelioration of symptoms with occasional cure.

This has also been our experience but we emphasize the importance of rest and posture as basically important and the use of the bronchoscope, which can only be employed at about weekly intervals, as a most valuable adjunct to this treatment in many cases by helping to establish more prompt and direct drainage.

It is our experience that it is the passage of the tube, combined with suction, which is valuable, and that lavage and the introduction of such medicaments as antiseptics, local stimulants, bismuth and the like, have no value and may do harm. We do not favor bronchoscopy in abscesses situated near the periphery of the lung, it is contraindicated in those not communicating with a bronchus, and is less apt to be successful in lesions situated fairly high up in the upper lobes. It is most useful in abscesses situated near the main bronchi, especially those in the lower lobe, but it is to be noted that it is just in this class of cases that rest and posture alone are most apt to succeed.

For the diagnosis and cure of abscess due to foreign body inhalation, bronchoscopy is the method of treatment, and for the diagnosis of new growth in the lung simulating a true abscess it is invaluable. It is also of value in accurately localizing the lesion in cases which come to radical surgical operation. We advise this method, therefore, in acute abscesses which do not promptly drain with posture, when the location is not near the periphery, in chronic cases for the amelioration of distressing cough and expectoration and for the diagnosis and localization of the lesion.

In about ten per cent of our cured cases bronchoscopy has played an important rôle.

Artificial Pneumothorax

The success of collapse therapy in certain cases of pulmonary tuberculosis very naturally has led to its consideration as a possible useful procedure in other pulmonary conditions and among them lung abscess.

We have employed this method in some cases, but tentatively, in order to have actual experience as a basis of judgment, rather than with great confidence in it as a rational procedure. The reason for this somewhat experimental method of approach is found in our conception of the radically different objects to be attained in pulmonary tuberculosis as opposed to abscess of the lung. In tuberculosis, rest and immobilization of the lung appears to us to be the prime consideration and for this often partial pneumothorax without any actual compression of the lung is adequate.

In abscess, drainage is the desired object, and by artificial pneumothorax this can only be facilitated by pressure properly applied upon the right point and in the right direction. We do not feel that this can be accurately gauged in artificial pneumothorax. Moreover, it sometimes happens that the air introduced works around into the pleural space near the mediastinum and may actually cut off drainage already partially established, resulting in an exacerbation rather than a relief of symptoms. This has been our experience in some cases and has been reported also by others. We also feel that the expulsive action of the cough, which is, after all, the one most important factor in lung drainage, may be hampered in a lung partially immobilized by a pneumothorax.

Our most serious objection, however, is the very real danger that the pleura may be ruptured when this method is employed in abscesses, with a resulting acute septic empyema necessitating immediate operation and under circumstances which render the danger to life exceedingly great. We have had a few such experiences and reports of similar cases occur rather frequently in the literature.

Tewkesbury (9) is perhaps the warmest advocate of artificial pneumothorax in the treatment of lung abscess and he reports very considerable success. He advocates its use as soon as the diagnosis is established, the earlier the better, if possible before any pleural adhesions are formed. He does not, however, state that it is not to be used in more chronic cases. Others have also reported successful results but usually in very small series of cases and among these are also some of the unfortunate ruptured cases above noted, and we cannot escape the impression that many cases have been treated without careful study of the other possible methods of treatment and without due regard to the dangers that may be involved.

Upon the whole, therefore, we believe that this procedure carries with it too great a risk to warrant its employment as a routine procedure in the treatment of lung abscess, at the same time realizing that with a fortunate combination of circumstances, especially in lesions situated near the hilum, brilliant results, as in one of our own cases, may be obtained by its use.

We have consequently employed artificial pneumothorax in only ten cases out of the one hundred which we recently gathered together for study and in one of these prompt recovery ensued. In the others it seemed to have little or no effect.

In general, therefore, we believe that the medical treatment of abscess of the lung is primarily bed rest and postural drainage, combined in certain types of cases already described with the intravenous use of neo-salvarsan, and in certain other cases, particularly where the abscess is near the hilum and which do not promptly improve with the above methods, by the additional use of bronchoscopy.

Taking it all in all, in our results about fifty per cent of all cases of abscess of the lung are cured by these conservative measures alone.

Indications for Surgical Intervention

While, as above stated, we believe that surgical intervention is most unwise and dangerous in the acute stage of pulmonary abscess, on the other hand it is equally unfortunate to delay operation after it has become evident that the above described medical procedures are not leading to satisfactory results.

In general, if a case of acute or subacute abscess has not made very considerable progress toward cure in a month or six weeks from the time that medical treatment is instituted, it is not likely that absolute cure will result from medical treatment alone, and it is in these cases that operation is indicated. On the other hand, however, in a very large majority of these cases the medical treatment has succeeded to the extent of allowing the acute process to subside and the pathological process to become more localized into a pure necrotic area with very much less of the hyperemic zone of empyema surrounding it than originally was present. It is during this stage that operation is much less dangerous and consequently the medical treatment may be looked upon in such cases as a preparatory one to successful surgical treatment.

In our experience about fifty per cent of the cases eventually come to operation but because of this preliminary medical care the surgical mortality has been materially reduced, in our recent experience being not greater than ten per cent, when previously the surgical mortality as reported in the literature ranged anywhere from thirty to seventy per cent in cases operated upon.

Summary and Conclusion

1. The successful treatment of cases of abscess of the lung is materially aided by their joint management by internist and surgeon, with the close cooperation of a skilled bronchoscopist.

2. A systematic plan of prolonged rest, combined with postural drainage, is the basic method of treatment. The intravenous use of neo-salvarsan is frequently of added benefit.

3. Bronchoscopy is of real value as an aid to drainage in certain cases. Artificial pneumothorax has a very limited field of usefulness.

4. Approximately fifty per cent of all cases will eventually need radical surgical treatment. Correct judgment of the indications for operation is the crucial element in successful treatment. In general, it is based upon the avoidance of surgical intervention during the acute phases of the disease but without delaying too long and thus allowing the case to drift into the chronic stage.

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PULMONARY ABSCESS AND ITS TREATMENT FROM THE SURGICAL STANDPOINT*

By **ADRIAN V. S. LAMBERT, M.D., NEW YORK, N. Y.**

THE whole subject of pulmonary suppuration is extremely complicated and there exists a considerable degree of confusion because of the failure to recognize that the term may refer to very different pathological processes. When we attack by surgery any particular case our success depends on having a clear conception of exactly what it is we are attempting to relieve. Many of the failures are directly attributable to some misconception of the lesion present in a particular case.

In discussing the surgical treatment of lung abscess it is well to consider in some detail what is meant by lung abscess in order to avoid in our discussion a confusion of ideas due to any misunderstanding by terms.

Many patients who have a profuse foul smelling sputum with constant distressing cough do not have a lung abscess, but are suffering from some other form of suppurative disease of the lungs.

We will confine the term lung abscess to a particular type of pulmonary infection, a supperative pneumonitis, the characteristic lesion of which is a cellulitis of the parenchyma of the lung with a breaking down of the walls of the alveoli and the formation of a cavity filled with the products of this necrosis which from time to time may be coughed up dependent on whether there exists a communication with the larger branches of the bronchial tree. This cellulitis of the lung parenchyma gives rise also to an oedematous swelling of alveolar walls with an infiltration by leucocytes and an exudation of serum into the alveolar spaces in a zone of varying extent about the central necrotic focus. The alveoli in the immediate neighborhood of the central focus are usually collapsed with their walls in contact and it is this zone of collapsed alveoli which is frequently spoken of as the wall of the abscess. The exact nature of this wall depends largely on the duration of the abscess, for after a prolonged period of suppuration these collapsed alveoli lose their respiratory epithelium and become connective tissue strands, in whose interstices many bacteria may be present. Such a group of alveoli are not capable of reaeration and account for the shadows present on X-ray examination long after the symptoms of the disease have disappeared and the patients are apparently cured. The bacteria may remain in this tissue a long time and account for the relapses of the disease so frequently seen in patients who insist on too much activity too soon after an apparent cure.

Such a focus when first seen is usually considered and spoken of as pneumonia and not until a free communication with a larger bronchus has become established is the correct diagnosis arrived at.

In confining our attention to this particular group of pulmonary suppurations we have purposely ignored those cases due to infection by the tubercle bacillus, those dependent on the presence of dilated bronchi with thickened infected walls, bronchiectasis, those due to the presence of foreign bodies, those resulting from neoplastic growths, and the cases of extensive pulmonary gangrene.

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Each one of these latter groups presents a particular problem and this fact but emphasizes the extreme importance of a correct and most exact diagnosis in all cases of pulmonary suppuration.

To go into the minute details of the differential diagnosis between these several conditions would, I fear, lead me too far afield in the limited time at my disposal, but I wish to emphasize the great importance which bronchoscopy plays in the problem, in neoplasms, foreign bodies, and the location of the abscess it is an invaluable aid. I do not consider that the procedure is devoid of all risk, but in expert hands this may be reduced to a minimum. Its value, however, may be so great that it is well worth while to face that risk for the sake of the important information which may be gained, in addition to the possibility of effecting a cure by that means alone.

The crux of the successful treatment of lung abscess may be summed up by the one word drainage, and in the management of any given case the problem is to effect adequate drainage.

It might be well at this time to emphasize the fact that in our series about 50% of all cases recovered completely under the more conservative forms of treatment without operation.

By the term surgical treatment we all have in mind the establishment of drainage through an opening in the chest wall and for its success several things are important:

1 Time at which to operate.
2 Exact location of abscess.
3 Technical surgical details.

Time At Which to Operate

The ideal time at which to drain a lung abscess through the chest wall is when the zone of exudative inflammation has been reduced to a minimum and the central cavity is surrounded by a series of collapsed vesicles, representing a more or less discrete wall. This condition may best be attained by treating the patients by conservative methods of postural drainage aided by bronchoscopy in suitable cases and by absolute bed rest. This stage may best be judged by frequent X-ray examinations and by following closely the character and amount of the daily sputum. It is a dangerous thing to treat a lung abscess by open drainage while there is an extensive zone of exudation about the central suppurating focus, because as soon as we establish a free opening through the abscess with a communicating bronchus we diminish or even abolish the expulsive effect of coughing on this zone of exudation, in other words we prevent the drainage in the vesicles of this zone and the process is liable to extend widely throughout other portions of the lobe involved and often extends to other portions of the lungs, and there results a wide-spread septic pneumonia which may rapidly prove fatal.

Exact Location of Abscess

Before undertaking the operative drainage of an abscess it is most important to accurately establish its exact location and if possible the point where it is nearest to the chest wall. Physical signs are often quite misleading and we have found that X-ray plates taken in two planes and the fleuroscopic mapping of the abscess on the chest wall are the best means at our disposal. The bronchoscope may also give us valuable information.

It is not sufficient to simply locate the lobe in which the abscess may lie but we should if possible ascertain whether it is anterior, posterior, lateral or central. I might add that abscesses situated near the hilus are the most difficult to drain by incision but fortunately they usually recover without operation.

Anesthesia

In the choice of an anesthetic we have employed both local anesthesia and general. Nitrous oxide gas with oxygen or ethylene with oxygen are the best general anesthetics. We never employ ether as being contraindicated on account of its irritating qualities. There are advantages in both the local and general anesthetics but of late we have used general anesthesia because it has the advantage that should collapse of the lung occur because of the lack of adhesion the lung may be blown up and thus diminish the danger from a possible shift of the mediastinum. We have had no accidents from the inhalation of sputum into the other lung during general anesthesia.

On opening the chest by the resection of a liberal portion of one or more ribs the presence or absence of adhesions should be ascertained. If there are none present it is wise to pack the wound with gauze and wait for three or four days to a week until the two layers of pleura adhere. There is danger of establishing a severe type of empyema if the abscess is opened when a pneumothorax is established. The smallest opening may prove disastrous in this respect as happened recently to me although the opening was minute in size, was packed off with gauze and apparently closed.

I feel that the use of the aspirating needle on the unopened chest in order to establish the diagnosis is an unjustifiable procedure for the same reason, namely the danger of establishing an empyema. After the pleura is exposed and the presence of adhesions established the needle may be an aid in locating more exactly the site of the abscess. It is not, however, without danger as was demonstrated on a case which died suddenly on the introduction of the needle as the first step in the second stage of a two-stage operation. These sudden pleural deaths I feel have not been satisfactorily explained but do occur from time to time. As a rule I avoid needling the lung.

I have opened the abscess with a scapel and have not used the cautery, and up to the present have not encountered any severe hemorrhage from the procedure. After opening the abscess it should be explored with the finger and the opening enlarged so that the drainage may be placed at its most dependent portion.

As a drain I use a collapsed cigarette drain covering without any contained gauze and place a rubber tube of large calibre and of soft texture just inside of the abscess wall leading the cigarette covering to the surface through its lumen. I feel that the character of this rubber tube is important and should not be the stiff, hard piece of hose so frequently found in hospitals, with about as much elasticity as an ordinary iron gas pipe. The walls of the tube should be relatively thin as compared to the size of its lumen. I employ gauze packing only to control severe hemorrhage and find that I use it increasingly seldom.

The incisions of the superficial layers of the chest wall are then packed with iodoform gauze about the tube. This acts as an excellent protective against infection.

The patient is kept on his operated side until he has completely established his respiratory equilibrium and emptied his bronchial tree of contained secretion.

Drainage of such an abscess must be maintained over a long period, several months or until such time as the X-ray shows a complete clearing of the surrounding lung and a granulating tract is established. The fear of establishing a permanent bronchial fistula in such cases is, I think, exaggerated and the difficulty in most cases is to maintain a free opening as there is a great tendency for the tract to close prematurely.

The case should be kept in bed until he is free of all symptoms and there is no odor to the discharge.

I should like to emphasize again before closing the importance of the treatment preliminary to operation and to again draw attention to the fact that many cases of abscess will recover without operation if placed on a proper regimen, that it is dangerous to operate during the acute stage and that a precise localization of the site of the abscess is necessary for a successful operative attack.

RESULTS OF THE LONG-CONTINUED USE OF INSULIN IN DIABETES*

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1. Before one can measure the value of a remedy in the treatment of diabetes, there must be learned what can be gained by the proper application of diet, rest, and regulation of personal hygiene. Dietary control alone produces remarkable results, but more or less temporary and variable in character. In a consideration of this point in connection with the introduction of insulin, 100 cases were carefully studied. For most patients on diet alone it required from two to four weeks to gain the maximum food tolerance with a normal blood sugar. Most of the patients were able to gain in glucose utilization from 25 to 100 grams. In about half the cases this gain would remain stationary or slightly increase for six months, while at the end of one year the loss of tolerance would begin to be noticeable and retrenchment would be necessary. In nearly half the cases after one year there was a loss of from 25 to 50 per cent. This preliminary ability to gain and the subsequent loss in food tolerance on diet alone must be thoroughly considered in an evaluation of insulin.

In order to determine the added aid of insulin to diabetics who had dietary therapeusis, I have selected from our series 28 cases who had been dieted thoroughly and who had been under observation sufficiently long to determine the limitations and beneficial possibilities of this procedure. When insulin became available they were all put on this treatment. Insulin therapy began with some of this series in May, 1922, nearly four years ago. They are therefore as long treated with insulin as any group of cases in the world.

2. Food Tolerance.—At the end of treatment—preinsulin period, 21 of the 28 cases had lost in food tolerance from 200 to 1000 calories; 7 were barely maintaining a low fixed tolerance. Of the same group four years after insulin, 27 had gained in food tolerance and were on diets above the normal maintenance requirement.

3. Body Weight and Growth.—In the preinsulin period, 15 of 28 cases had lost from 5 to 30 pounds each, or a total of 218 pounds. Eight were maintaining a constant weight and 5 cases had gained from 4 to 14 pounds, or 40 pounds. Seventeen were below and 9 above their standard weight. Since insulin 24 of the cases have gained 407 pounds. Two cases have lost 22 pounds. Thirteen of these cases are still below their ideal weight, 4 are normal and 11 above standard weight.

Before insulin, increase in body stature in a series of 28 children was slight or negligible. Seven preinsulin children, who made no growth progress before, have rapidly grown and developed since.

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* Read at the Meeting of the Medical Society of the State of New York, at New York, March 30, 1926.

4. Economic Efficiency.—The physical efficiency of these 28 cases before insulin was as follows: 12 were able to do some or all of their usual duties; 6 cases were about but unable to work; 11 were bad cases and helpless. Today 21 are able to do full duty and 7 part duty. None are now helpless. Formerly the majority of all moderately severe or severe diabetics had to gradually abandon work. Now practically all of them are able to continue at full or nearly full time work, unless prevented by complications.

5. Fate of Large Groups Before and Since Insulin.—In a five-year period prior to the discovery of insulin, we studied carefully the fate of 304 cases of all ages, treated by the Allen method. Two hundred one or 66 per cent were living and 103 or 34 per cent had died.

In the four-year period in which we have used insulin, we have studied 478 cases of all ages. Four hundred four or 85 per cent are living and 74 patients or 15 per cent are dead.

5. Causes of Death.—Before the advent of insulin under the Allen method, over a five-year period, out of 103 fatal cases 71 apparently died of diabetes, the remaining 32 dying of complications.

In the four-year insulin period, 74 cases have ended fatally; of these 16 have been due to diabetes, and 58 deaths to complications. In 7 of the diabetic deaths, patients were only treated for a few hours.

6. Duration of Life.—Before insulin a child under 10 years with diabetes rarely lived two years. Between the ages of 10 to 20, death occurred in from two to four years, and from the ages of 20 to 30 in from four to six years. After 30 years the period extended from five to 15 years. Since insulin there have been few deaths due to diabetes alone where properly treated. The tenure of life has been indefinitely extended.

7. Insulin Dosage.—While the great majority of newly treated cases are able to either diminish the dose or discontinue insulin after using it for a few months, in my series of 28 pre-insulin cases who had attained a fixed or were in a state of declining food tolerance, none have been able to discontinue it. Only 2 cases have been able to reduce the dose, 8 cases have been able to get along without increasing it in spite of substantial gains in body weight, while 18 have had to increase the dose although body weight gains account for a part of the increase. In two children there has been a striking increase in insulin requirement, from 80 to 210 units daily in one child, and from 20 to 190 in another child. Both children have gained greatly in growth and weight.

8. Coma.—Insulin apparently does not lose its potency in the relapses which follow indiscretions in diet, or from the failure to use it properly. I have had 3 cases in which profound coma has occurred eleven times, promptly relieved and returned to their metabolic status previous to the relapse. Repeated attacks of diabetic coma do not appear to have appreciably hurt these patients.

9. Effect on Skin of Persistent Needle Punctures.—It was early predicted that the continuous use of the hypodermic needle would destroy the skin so that ultimately it would not be possible to administer insulin by the subcutaneous method. Experience does not justify the fear. One of my cases has had upwards of 4,200 injections about the buttocks and thighs. Treatment in this case was begun in May, 1922, when insulin was impure and caused several large and very severe abscesses. Nevertheless, this patient's skin today is in good condition and shows no ill effects from the repeated needle punctures. Eight cases under my care in a little over 4 years have had upwards of 23,000 needle punctures with no apparent ill effects.

10. Over Dosage — Hypoglycemic Shock. — Patients are commonly receiving over dosage of insulin. I have seen no bad effects from this except in one case where a patient at home lost his life because proper relief was not afforded.

11. Blood Sugar.—In about one third of my old cases, I have found it quite impossible to keep the blood sugar constantly at normal levels. I have witnessed no particular evil symptoms from permitting the higher blood sugar levels to exist, nor has there been evidence of gradual decline as has been predicted would occur were hyperglycemia allowed to persist. Some of these cases are very difficult to reduce, and apparently have hypoglycemic reactions at higher levels than the normal for this phenomenon. Three severe cases of this type after long treatment have recently shown evidence of improvement and are now within normal range. Many of this group have persistently high thresholds with little or no urine sugar. The other cases in the series are more or less variable.

12. Urine Sugar Outgo.—Many of the old cases show 24-hour urine sugar in small quantities in spite of insulin dosage to the point of hypoglycemic reactions. This is due to the difficulty in synchronizing insulin activity with food absorption and metabolism. Apparently no harmful result is observed therefrom.

13. Blood Pressure.—Occasionally in insulin-treated cases, a transient rise in both diastolic and systolic blood pressure is noted. I have observed this in 6 cases. In one case, a male who has had insulin for practically 4 years, there has been a permanent rise in systolic blood pressure of about 30 mm., together with slight changes in the retinal arteries, suggesting a vascular disturbance.

14. No increased susceptibility to communicable or other disease has been noted in any of the insulin treated cases.

STROGANOFF'S TREATMENT OF ECLAMPSIA, AND RUSSIAN PRENATAL AND CHILD WELFARE POSTERS

By STUART B. BLAKELY, M.D., BINGHAMTON, N. Y.

A DESCRIPTION of an "obstetric journey" to Russia last year appeared in the *American Journal of Obstetrics and Gynecology,* (June, 1926), as Correspondence. The chief objects of the trip were to learn at first hand about the Stroganoff treatment of eclampsia, and to observe (hastily and incompletely) what the Soviet Government is doing for expectant mothers. Certain results of the quest seem to me to deserve further elaboration.

STROGANOFF'S TREATMENT OF ECLAMPSIA

Prof. B. B. Stroganoff of the State Institute for Obstetrics and Gynecology in Leningrad worked out a treatment of eclampsia in 1897 and published it with a report of 45 cases without maternal death in a Russian journal in 1899. To date he has observed over 900 cases of eclampsia and has used essentially the same method from the beginning. In the last 300 cases (under his "improved" method) he has had 2.6 per cent maternal mortality and 16 per cent fetal mortality—a record not approached by any other clinic. His treatment has been attacked and his figures questioned by many. To meet him is to remove any doubt about his ability, honesty and sincerity. It has never been demonstrated that any other cases than true eclampsia have been included in his series. The fact that most cases have no more than one convulsion after admission is no proof that the condition is less severe in Leningrad, but rather may be cited as evidence of the success of the treatment. His use of chloroform and the small amount of blood removed when phlebotomy is done have been most severely criticized, and many "modified" Stroganoffs are in use. He very pertinently asks on what basis of experience or results are such modifications made. The principles of his treatment are (1) To lessen the irribility of the nervous system by the prevention of irritation and by the use of narcotics; (2) To lessen the "toxins" in the blood by the production of perspiration, the administration of fluids, and venesection; (3) To maintain body functions.

The "improved" Stroganoff method is given in Hinselmann's "Die Eklampsie," in both Russian and German, but nowhere in American textbooks have I seen it in detail. It is worthy of the most serious study and application in view of our present knowledge of the condition, and of the methods and mortality in this country. The sources of the following outline of his "improved" method are personal talks and hospital rounds with Prof. Stroganoff, and his articles in German, English and American medical literature.

I. REMOVAL OF IRRITATION, OR REDUCTION TO MINIMUM

1. Rest—absolute, in bed.
2. Darkened room.
3. Separate room and special nurse—constant observation of mother before delivery and of both mother and baby for 24 hours postpartum.
4. Elimination of noise—any and all as far as possible, which is possible much farther than most attendants have any conception of.
5. Avoidance of all manipulations, examinations, moving, etc., except as absolutely necessary (most of the procedures mentioned are entirely unnecessary) and then usually under chloroform. Therefore, no baths (cleansed with a wet towel if imperative), no lavage, no enemata or colon irrigations (unless bowel loaded), no packs, no hypodermoclysis or intravenous medication or fluid, no catheterization (except on admission and as indicated clearly), no abdominal or vaginal examinations (unless absolutely and definitely indicated, and the same for intravaginal and intrauterine procedures). The bed can be made or changed under chloroform, or directly after a fit, or when the narcotics have shown their full effect.

II. USE OF NARCOTICS (MORPHINE, CHLORAL HYDRATE AND CHLOROFORM)

It is *very* important that *enough* be given the first 4-5 hours to control the convulsions for this is the first principle of the method. If necessary the larger doses may be given and the schedule hurried a bit.

1. *Morphine Sulphate and Chloral Hydrate:*

a. *Doses and Frequency—*

First—morphine sulphate..........	0.01	0.015	0.02 gms.
End 1st hr.—chloral hydrate......	1.5	2.0	2.5 gms.
End 3rd hr.—morphine sulphate..	0.01	0.015	0.02 gms.
End 7th hr.—chloral hydrate.....	1.5	2.0	2.5 gms.
End 13th hr.—chloral hydrate....	1.0	1.5	2.0 gms.
End 21st hr.—chloral hydrate....	1.0	1.5	2.0 gms.

The metric system is used. The middle figures are the average doses. For weaker patients and with lighter attacks (e. g., postpartum) the smaller doses may be used; for stronger patients and severe eclampsia, the larger doses—even up to morphine sulphate 0.03 gms. and chloral hydrate 9.0 gms. in 12 hours. The patient must sleep or slumber, rousing slightly with the pains. If 14 hours without a convulsion, lessen the dose of chloral. On the second day and no convulsions, give chloral hydrate 1.0-1.5 gms. t. i. d.

b. *Method of Administration.*—Morphine by hypodermic and *under chloroform*—both doses. The chloral is given by mouth with 100 cc. milk if conscious; if unconscious, by rectum with milk and saline solution aa. 100 cc.—the first two doses usually under chloroform, the other doses not if no fits for 12 hours.

2. *Chloroform.*—10 to 20 drops or more at a time; usually not over 10 cc. in 12 hours, though 40 cc. has been given to a "strong" patient in that time. It is useless to try to give chloroform *during* a convulsion. Chloroform is given for *all* examinations, manipulations, etc., when a convulsion is likely to occur; when giving medication, as outlined in the preceding paragraph; during the first two intervals between medication for 10 to 20 minutes if prodromata of a fit appear; at the birth of the head; at and directly after the birth of the placenta, 1.0 to 1.5 cc. Prodromata of a convulsion are headache or increase of headache (complaint if conscious), restlessness, twitching of face, hands and feet, dimming of vision, increase of blood pressure.

III. Venesection

Used since 1911 in 10 to 15 per cent of cases. 400 cc. of blood is removed. It is indicated if convulsions recur two or three times, if one very severe occurs, or if they continue in spite of the narcotics; also in the presence of pulmonary oedema, or a hard pulse postpartum. It is not indicated if delivery is expected within two to four hours.

IV. Delivery

As soon as possible without danger to mother or child—especially the former, and under narcotics. The membranes may be ruptured artificially when the external os is dilated two fingers in a multipara, or three fingers in a primipara. A careful forceps or version (latter rarely in primiparae) may be used to hasten delivery—of course when conditions are suitable and not forced. The following procedures are *not* done—accouchement force, introduction of bags, Caesarian section.

V. Maintenance of Body Functions

1. *Skin and Kidneys*—warm light coverings; hot water bottles to feet and kidney regions (care about burns!); hot weak tea and milk at least 500 cc. aa. in 24 hours—if unconscious, milk and saline at least 500 cc. aa. by rectum in the same period.

2. *Lungs*—fresh air. During and after a convulsion it is very important and valuable to administer oxygen. *All* hindrances to free respiration should be removed, especially in feeble patients. The patient should lie chiefly on the right side, but her position should be changed at least every four hours. The mouth and nostrils should be carefully cleansed and kept free from mucus, vomitus, blood, etc.

3. *Heart*—if weak, or after several convulsions, or over 100, digitalis is given. If very weak or rapid, caffem, camphor, etc.

Toward the end of the first day under proper treatment one may expect the following favorable symptoms—cessation of convulsions (in over 80 per cent of the cases these cease within 24 hours; if there are no convulsions for 12 hours, in only 3.4 per cent do they recur), clearing of sensorium, increase of urinary output, perspiration, lessening of headache, lowering of blood pressure. Many cases get over their eclamptic attack and go home undelivered, though in the majority of cases labor starts spontaneously. An increase of narcotics is indicated if the pulse continues hard and tense; if severe headache persists; if there is unrest, or continued coma; if the convulsions continue. Only very rarely is an obstetrician driven to a forced delivery of an eclamptic. Occasionally an eclampsia proceeds to a fatal termination in spite of all efforts.

To realize the value of the method and to get results the treatment must be prompt, strict and thorough. If it is not all three, it is not Stroganoff's.

RUSSIAN POSTERS ON PRENATAL AND CHILD WELFARE WORK

Down in Moscow the Department of Maternal and Infant Welfare of the central Soviet government faces a colossal task. Consider some of the elements of the problem—a country occupying one-sixth of the world's land area; a population of over 130 millions, 90 per cent rural and possibly 80 per cent illiterate, of divers races, languages, habits, customs and beliefs; a conglomerate of peoples, the majority exploited and oppressed for centuries by emperor and priest, demoralized by years of war, revolution, famine and disease; a welter of humanity, in a high degree superstitious, hostile to change, suspicious of government. I have seen no figures for the maternal death rate; we cannot boast of very accurate ones in this our supposedly enlightened country. One of the child-welfare posters states that of 100 children born, 26 die in the first year. It is probably not too high an estimate. But the Department has made a start. It is poor in money, personnel and equipment. It works and hopes in the face of almost overwhelming odds. It is entirely within its rights to ask that the results of its works be not yet judged; it is highly proper for it to ask for time for such a task. A half century would be short. I definitely feel—possibly on insufficient evidence—that they are earnest and sincere and are really striving to do something for the common woman of Russia and her child.

It is not possible to enter into a discussion of the many ways and means used in the propaganda for the health of mother and child. One, however, immediately attracted my attention and impressed me profoundly—i. e., their prenatal and child-welfare posters, that are displayed in hospitals, dispensaries, creches, summer nurseries, clubs, community houses, factories, co-operative stores, etc. In 1924, more than 80,000 were distributed. They are admirably suited for their purpose. Black and white prints give no idea of the brilliant coloring (so dear to the Russian heart), the artistic design and striking beauty as do the originals or colored lantern slides. Untrammeled by convention in conception or execution they are entirely original, unique in their field and unsurpassed, I believe, in the world today. Ten of these posters (of course much reduced in size) are printed in the pages following, accompanied by a rather literal translation of the Russian texts and descriptions (readers familiar with Russian please be merciful!). In brackets are some comments of my own that may help to a better understanding of the posters.

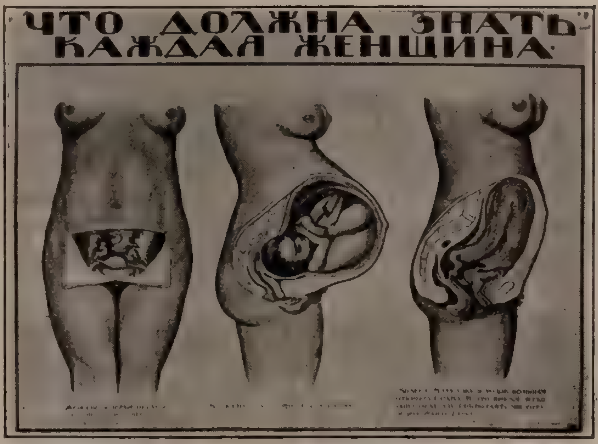
ОБЕРЕГАЙТЕ ЖЕНЩИНУ-МАТЬ.

Poster No. I

Take care of the woman-mother.

The owner watches his pregnant horse and pregnant cow, but has no pity on his pregnant wife.

Peasants! Relieve her of hard labor; do not lift anything heavy—this may make her and her child perish. [Typical peasant scenes.]



Poster No. II

What every woman should know.

Female sexual organs—normal condition.

Uterus at the ninth month of pregnancy.

Uterus after delivery. It is a big open wound and at that time is easily infected. Watch cleanliness and do not work for seven days. [In Moscow wax models of these figures were accessible to the general public.]

Poster No. III

(UPPER LEFT)

What every woman should know.

Do not drink any alcoholic liquor. Do not lift any heavy weight. Bathe yourself often. Change your underlinen. During pregnancy show yourself several times to the doctor. [A prenatal consultation.]

(UPPER RIGHT)

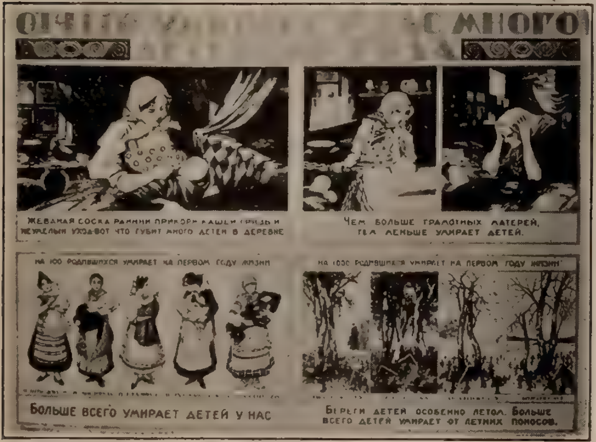
Swelling during pregnancy is a sickness. Consult the physician; pay no attention to the midwife.

(LOWER LEFT)

The birth with the assistance of the midwife often results in the serious illness and even the death of the mother and child.

(LOWER RIGHT)

Knowledge and cleanliness are the guarantees of health. The accoucherka has studied and knows how to correctly care for mother and child. Call an accoucherka (a sort of "nurse-midwife"). [Contrast the two lower pictures.]


С МНОГО
ЖЕВАНАЯ СОСКА РАННИЙ ПРИКОРМ КАШЕЙ ГРЯЗЬ И НЕУМЕЛЫЙ УХОД-ВОТ ЧТО ГУБИТ МНОГО ДЕТЕЙ В ДЕРЕВНЕ
ЧЕМ БОЛЬШЕ ГРАМОТНЫХ МАТЕРЕЙ, ТЕМ МЕНЬШЕ УМИРАЕТ ДЕТЕЙ.
НА 100 РОДИВШИХСЯ УМИРАЕТ НА ПЕРВОМ ГОДУ ЖИЗНИ
НА 1000 РОДИВШИХСЯ УМИРАЕТ НА ПЕРВОМ ГОДУ ЖИЗНИ
БОЛЬШЕ ВСЕГО УМИРАЕТ ДЕТЕЙ У НАС
БЕРЕГИ ДЕТЕЙ ОСОБЕННО ЛЕТОМ. БОЛЬШЕ ВСЕГО ДЕТЕЙ УМИРАЕТ ОТ ЛЕТНИХ ПОНОСОВ.

Poster No. IV

(UPPER LEFT)

From what do a lot of children die by us till they reach the age of one year?

Chewed nipples, early adding of cereals, dirt and not knowing how to care for the baby are reasons that cause the loss of so many babies in the woods (i. e., peasant villages and homes).

(UPPER RIGHT)

The more educated the mother, the less children die. [Contrast the surroundings and bearing of the two mothers.]

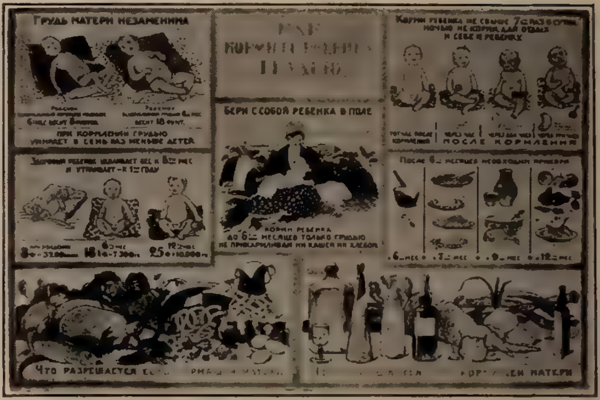
(LOWER LEFT)

Out of a 100 newborn there die in the first year of life in Switzerland 9, in England 14, in Italy 17, in Germany 20, and in Russia 26. The most children of all die with us. [In the original poster the national costumes are in color.]

(LOWER RIGHT)

Out of a 1000 newborn there die in the first year of life in the spring, 73, in summer 144, in autumn 63, in winter 67.

Watch your babies, especially in the summer. Most of all children die of summer diarrhoea. [Note the changing foliage of the seasons and in the last panel the snow; also little crosses in the graveyards.]


ГРУДЬ МАТЕРИ НЕЗАМЕНИМА
ПРИ КОРМЛЕНИИ ГРУДЬЮ УМИРАЕТ В СЕМЬ РАЗ МЕНЬШЕ ДЕТЕЙ
БЕРИ С СОБОЙ РЕБЕНКА В ПОЛЕ
КОРМИ РЕБЕНКА ДО 6 МЕСЯЦЕВ ТОЛЬКО ГРУДЬЮ НЕ ПРИКАРМЛИВАЯ НИ КАШЕЙ НИ ХЛЕБОМ
ПОСЛЕ КОРМЛЕНИЯ
ЧТО РАЗРЕШАЕТСЯ
МАТЕРИ

Poster No. V

(UPPER LEFT)

How to feed the baby by the breast.

The breast cannot be substituted by anything else. Cow's milk—6 months—8 pounds; breast milk—same age—18 pounds. When breast-fed the mortality is seven times less. [The Russian pound is not the same as ours; note the difference shown in the state of nutrition.]

(LEFT CENTER)

The weight of a healthy child is usually two times its birth weight at 6 months, and three times at a year.

At birth, 8 pounds (3,200 gms.); 6 months, 18¼ pounds (7,300 gms.); 1 year, 25 pounds, (10,000 gms.)

(CENTER)

Take the baby with you into the fields. Feed the baby up to the sixth month only with the breast—not to give any bread or cereal. [The peasant woman can grasp this; special emphasis has been laid on the establishment of summer nurseries for nursing mothers working in the fields.]

(UPPER RIGHT)

Feed the baby not more than seven times in 24 hours. This shows the milk in the stomach of the boy—immediately after feeding; one hour after feeding; two hours after feeding; three hours after feeding. [Note the changing expressions on the baby's face—from satisfaction to hunger—as the milk level lowers in his stomach.]

(RIGHT CENTER)

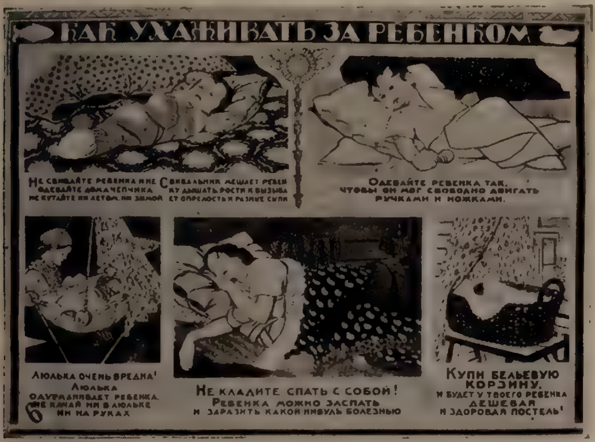
After six months it is necessary to help the breast. Semolina, 6 months; potato flour and fruit, mashed potato, mashed carrots, mashed turnips, 7 months; cow's milk, soup, bread, 9 months; raw fruits (apples, pears, plums, cherries, currants), meat 12 months.

(LOWER LEFT)

What a nursing mother is allowed to eat (there are shown fish, fowl, beef, cucumbers, lobsters, carrots, cabbage, apples, cherries, currants, pretzels, rye bread, eggs, milk, cocoa).

(LOWER RIGHT)

These are not allowed for a mother who nurses (there are shown home-distilled vodka, beer, wines, liquors, garlic, onions, horseradish, relishes). [Hardly possible to be more graphic than these last three pictures.]


КАК УХАЖИВАТЬ ЗА РЕБЕНКОМ
Одевайте ребенка так, чтобы он мог свободно двигать ручками и ножками.
Люлька очень вредна! Люлька одурманивает ребенка. Не качай ни в люльке ни на руках
6
Не кладите спать с собой! Ребенка можно заспать и заразить какой нибудь болезнью
Купи бельевую корзину, и будет у твоего ребенка дешевая и здоровая постель!

Poster No. VI

(UPPER LEFT)

How to care for the baby.

Do not bandage the child, and do not dress it at home with a bonnet. Do not bundle it up, either summer or winter.

Bandaging hinders the child to breathe and grow, and brings out skin irritations and different rashes.

(UPPER RIGHT)

Dress the child thus, so that it can freely move the hands and feet.

(LOWER LEFT)

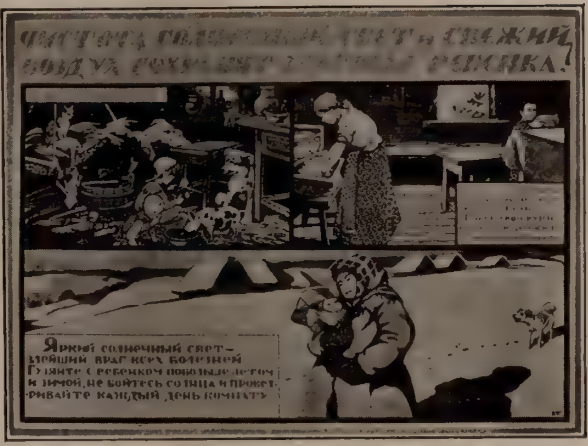
The cradle is harmful. Again, the cradle makes the child dizzy. Do not swing the child, either in the cradle or in your arms.

(LOWER MIDDLE)

Do not put the child to sleep with you. The child might be overlain and might contract some disease.

(LOWER RIGHT)

Buy a clothes basket, and that will make a cheap and healthy bed for the child.


Яркий солнечный свет—
злейший враг всех болезней
Гуляйте с ребенком побольше летом
и зимой, не бойтесь солнца и провет-
ривайте каждый день комнату

Poster No. VII

(UPPER LEFT)

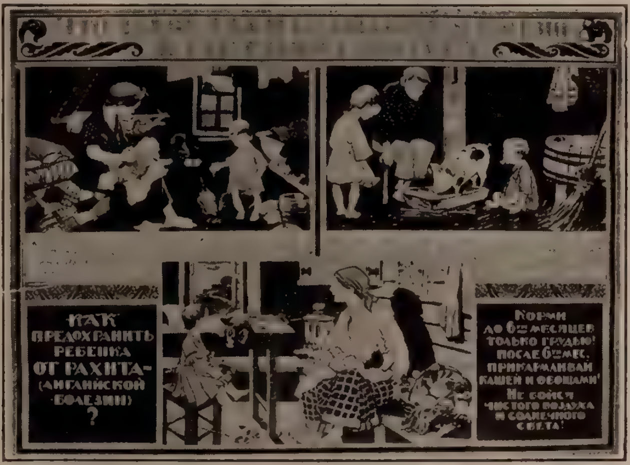
Cleanliness, sunshine and fresh air promote the health of the child. Dirt is the source of disease.

(UPPER RIGHT)

Bathe the child every day, change its clothes often, wash your hands often and keep your rooms clean. [Contrast the details of the two rooms.]

(BELOW)

Strong sunshine and light are the worst enemies of disease. Be out of doors with the baby much of the time, both winter and summer. Don't be afraid of the sun and light. Air your rooms every day.


КАК ПРЕДОХРАНИТЬ РЕБЕНКА ОТ РАХИТА- (АНГЛИЙСКОЙ БОЛЕЗНИ) ?
Корми до 6ти месяцев только грудью! После 6ти мес. прикармливай кашей и овощами! Не бойся чистого воздуха и солнечного света!

Poster No. VIII

(UPPER LEFT)

What is rickets (the English sickness) and how to fight it?

Improper feeding of cow's milk, close air, darkness, dampness—these are the causes of rickets, the English sickness. [Term derived from the old treatment of this disease in England by the King's touch.]

(UPPER RIGHT)

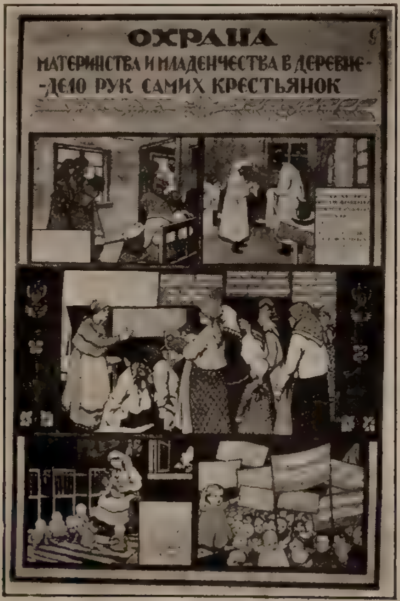
Rickets cripples children for their whole life. It makes them bow-legged, hunchbacked—and many die of it. The remainder that survive often get sick with tuberculosis. [Note the unhygienic conditions in these two rooms—the dirty bottles, the filth, the dark close rooms, the animals, the rickety children, the tuberculous man.]

(LOWER LEFT TEXT)

How to prevent the child getting rickets—the English sickness.

(LOWER RIGHT TEXT)

Feed to the sixth month only with the breast. After the sixth month add cereals and vegetables. Do not be afraid of air and sunshine. [Contrast in detail the lower picture with the two above.]


ОХРАНА
МАТЕРИНСТВА И МЛАДЕНЧЕСТВА В ДЕРЕВНЕ-
-ДЕЛО РУК САМИХ КРЕСТЬЯНОК

Poster No. IX

(ACROSS TOP)

The preservation of motherhood and childhood in the villages is the work of the hands of the peasant women themselves.

(UPPER LEFT)

The consultations (dispensaries) will teach you to guard your baby from illness.

(UPPER RIGHT)

The best and safest place for a woman to give birth is the hospital maternity ward. Remember that in abnormal cases the help of the doctor cannot be substituted.

(CENTER)

The local co-operative societies and mutual aid committees should come to the help of the mother and child.

The local doctor should set aside one day a week to accept mothers and breast children.

We don't want to trust the midwives any more. We demand the accoucherok (plural form).

You should help us build summer nurseries and dispensaries.

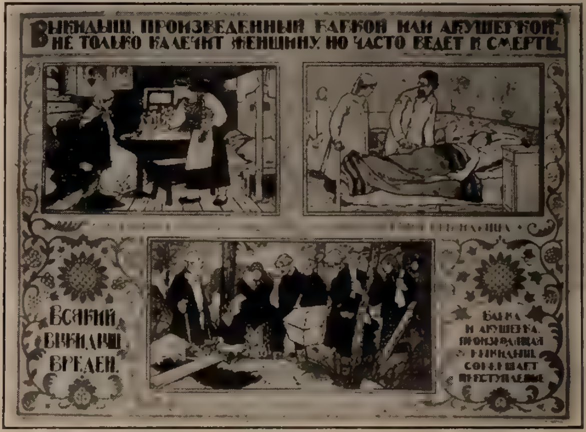
Demand a delivery department in the branch medical hospital. [Note the peasant women gathering, the spellbinder, and the wall placards.]

(LOWER LEFT)

Summer nurseries free the mother from worry and preserve the health of the child. [Much emphasis on this.]

(LOWER RIGHT)

Defend yourselves from flies. We demand clean and dry diapers. Breast of the mother. Clean air and light. We demand healthy parents. We demand trained nurses. No midwives. We demand vaccination. [A soapbox orator and a parade of banners with devices!]


ВЫКИДЫШ, ПРОИЗВЕДЕННЫЙ БАБКОЙ ИЛИ АКУШЕРКОЙ,
НЕ ТОЛЬКО КАЛЕЧИТ ЖЕНЩИНУ, НО ЧАСТО ВЕДЕТ К СМЕРТИ.
ВСЯКИЙ ВЫКИДЫШ ВРЕДЕН.
БАБКА И АКУШЕРКА, ПРОИЗВОДЯЩАЯ ВЫКИДЫШ, СОВЕРШАЕТ ПРЕСТУПЛЕНИЕ

Poster No. X

(ACROSS TOP)

Abortion, induced by the midwife or accoucherka, not only cripples the woman, but often causes death.

(LOWER LEFT TEXT)

Every abortion is harmful.

(LOWER RIGHT TEXT)

A midwife or accoucherka who does it commits a crime.

(UPPER LEFT)

At the house of the abortionist. [Note the attitude of the woman and the assurance of the abortionist with bottle of abortifaciant and bodkin in her hand.]

(UPPER RIGHT)

The result of the abortion. [The hospital ward.]

(LOWER CENTER)

The death of the woman aborted. [Note the large towels that are used to support the coffin; these are furnished by the family of the deceased and become the property of the bearers. A homely gathering in the country cemetery about the open grave—the last chapter of the tragic story.]

THE DIAGNOSIS OF AFFECTIONS OF THE HIP JOINT*

By ARTHUR KRIDA, M.D., F.A.C.S., NEW YORK, N. Y.

AFFECTIONS of the hip joint at all ages manifest themselves primarily as disorders of function of the joint. The primary aim of treatment is conservation of function. Treatment, to be most effective, must be instituted early. The institution of treatment must wait upon the recognition that a disorder exists, and upon its diagnosis. The responsibility for the recognition of the fact that a hip joint affection exists falls nearly always upon other than orthopedic specialists; its differential diagnosis is usually simple, sometimes difficult, and occasionally exhausts the diagnostic resources of the orthopedic surgeon.

Frequency and age incidence are often convenient pegs upon which to hang a diagnosis. With this in mind, I have analyzed the case histories of hip joint cases which presented at the Hospital for Ruptured and Crippled during a single year (1925). At this hospital a regional system of classification of case histories has been in use during the last three years. The material here analyzed is filed under the subdivisions of the caption of "Hip Joint and Hip Region," and includes 458 cases; 152 were cases of minor and unclassified conditions, in a number of which the case histories were too fragmentary to substantiate a diagnosis.

A further group of 55 cases were listed as "Gluteal Myositis." The latter is a semi-medical type of diagnosis. It is mentioned here because it is still much used, but it should be emphasized that the painful "lumpy" condition of the gluteal muscles which it denotes is most often an expression of chronic static insufficiency of the lower back.

Excluding these two groups, 251 cases remain which were subdivided as follows:

Unclassified Fractures, 8; average age 55.

Fractures of the Femoral Neck, 28; average age 56.

(11 fresh fractures, 17 un-united)

Displacement or Separation of the Upper Femoral Epiphysis, 13; average age 12.

Acute Destructive (Septic) Arthritis, 1; age 19.

Sequellae of the above (Deformity, Pathological Dislocation), 16; average age 25.

(Average age of onset, 7; onset in 6 of 16 cases, under 2)

Chronic Infectious Arthritis, 16; average age 16.

Osteoarthritis; Monoarticular Arthritis Deformans, 38; average age 51.

Chronic Destructive Non-Tuberculous Disease, 2; average age 17.

Tuberculosis of the Hip, 39; average age 14.

Sequellae of the above (Inactive Disease, Deformity, Dislocation), 22; average age 26.

(Average age of onset of 50 cases of above two groups; 8 years. 27 of 50 cases, onset under 5 years.)

Congenital Dislocation, 65; average age 6.

(45 of 65 cases were under 4).

Osteochondritis Juvenilis Coxae, Calve-Legg-Perthes' Disease, 3; average age 8.

It will be seen from the above that congenital dislocation and tuberculosis of the hip (at least in so far as it concerns the age of onset) is most frequent in childhood, and that osteoarthritis and fracture of the femoral neck is most frequent in the declining years. The period of adolescence is noted by the medicine of epiphyseal separation and chronic infectious arthritis. The young adult seeks relief most often for the sequellae of acute destructive arthritis, although the initial disease occurred many years before.

DIAGNOSTIC METHODS

(*a*) *Physical Diagnosis*

The examination should obviously be conducted after the patient has shed his clothes. Abnomalities of gait, station and posture in recumbency may then be noted. Limp and atrophy are outstanding features which may be elicited in this stage of the examination. Local heat, infiltration and tenderness should then be sought. After this should follow the examination for limitation of motion, which should always be conducted with care. There is nothing to be gained from inflicting needless pain upon the patient by this manipulation. The extremes of motion should be noted, and it is well to bear in mind at this time, that if motion is restricted in all directions, that an arthritis exists.

(*b*) *Mensuration*

In all distortions about the hip joint, measurements should be made. The discussion of the interpretation of measurements of the length of the lower extremities and of distortions about the hip joint is apt to be befogged unless a very few simple and basic principles be kept in mind. The serious student of these matters is discouraged from the very beginning by tables of relations between "actual" and "practical" shortening, and by Kingsley's table, still quoted in textbooks, for the measurement of flexion deformities, when after all the matter is not so complicated.

In the normal individual, in the upright position, the anterior superior spines are on a plane parallel with the floor. If this plane deviates from the parallel, and abnormality exists. For practical purposes, pelvic tilt is dependent upon one or more of three factors: (a) change in length of the component bones of the lower extremity, (b) upward displacement at the hip joint of the extremity as a whole, (c) primary change in the angle at the hip joint, (flexion, abduction, adduction). The determination as to the relative responsibility of each of these factors may be made with an approximation to accuracy sufficient for clinical purposes, with a tape measure.

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*Read at the Meeting of the Nassau County Medical Society, September, 1926.

The examination is made with the patient on his back. The pelvis is made level, and the normal limb is placed in its proper relation to the pelvis. The measurement is made from the anterior superior spine to the internal malleolus. This is the measurement of "actual" length. If the abnormal limb may be brought to a similar relation with the pelvis, and if the measured length from the anterior superior spine to the malleolus be found to be less than the other, it will at once indicate either a shortening of the component bones of the lower extremity or an upward displacement of the extermity as a whole (dislocation).

If the abnormal limb cannot be brought into its proper relation with the pelvis, the nature and degree of its distortion with relation to the pelvis is to be determined. For distortions in the abduction-adduction plane, the center of a line joining the anterior superior spines may be considered, for purposes of record, as the center of rotation. The angle which the lower extremity makes with this line may be determined with sufficient accuracy by inspection, and is thus recorded in degrees of abduction or adduction.

Minor grades of restriction in the range of hyperextension are determined by turning the patient over on his face, testing the range in the normal limb by placing one hand on the pelvis and the other beneath the knee, and hyperextending the extremity. Slight deviations in the abnormal limb are at once evident by comparison.

Grosser flexion distortions are determined with the patient on his back. The normal limb is flexed at the hip until the lumbar spine rests on the table. The abnormal limb will make an angle with the table, the degree of which may be determined by inspection, and so recorded.

The significance of noting distortions in those cases where the abnormal limb cannot be placed in symmetry with the pelvis lies in the fact that it modifies to a slight extent, the measurement of "actual" length. "Actual" length measurements are lessened by abduction and flexion.

Measurements of "actual" length lose much of their significance in the presence of gross distortion at the hip. In such instances a measurement which more nearly expresses the static relations of the distorted extremity is used. This is the measurement of "practical" shortening. This is made with the patient lying on his back, with the lower extremities placed in line with the trunk. For static purposes, a point corresponding to the umbilicus is considered as the fixed point, and the measurement is made from this to the malleoli.

In a practical way it may be stated that the commonest finding in nearly all hip joint affections is restriction in range of abduction and extension, in other words, a flexion-adduction deformity.

(c) Laboratory Aids

Laboratory investigations are used as for disease or abnormality elsewhere in the body. The degree to which various investigations are carried, the limitations of the various procedures, and the interpretation of the results are matters which are determined by the general pathological experience of the individual surgeon.

(d) X-rays in Diagnosis

In hip joint affections, the attempt to utilize the X-ray as a diagnostic short-cut too often results in dismal failure. The X-ray yields nothing in acute sepsis of the joint and in the earlier months of a tuberculous or other chronic infection. The masters of orthopedic surgery who wrought in the pre-X-ray era elaborated a pathology and therapeusis which in many instances has stood the test of time. One need refer only to the work of Lorenz on congenital dislocation and to that of Royal Whitman on fracture of the femoral neck and on epiphyseal displacement as examples. The point is made to illustrate the fact that X-rays cannot be made to take the place of trained clinical investigation. On the other hand, X-rays are frequently of great diagnostic and prognostic significance. Occasionally, the diagnosis hinges largely on the X-ray plate (Perthes' Disease, sub-luxation).

Fracture of the Neck of the Femur

The fracture of the hip in old people is a picture so familiar to all of you that it hardly merits special mention. And yet there are aspects of this condition which will bear reiteration. A person over 55 years of age who makes a misstep or twists his leg in the dark, falls down and is unable to get up, is apt to have a fracture of the femoral neck. There is no such thing as a "sprained" hip in an aged individual. The hip is broken. The patient takes to his bed. There is a great deal of disability, and a great deal of pain on movement, and pain is often referred to the inner side of the knee. In a typical case, the diagnosis can confidently be made on such a history.

Confirmatory evidence is found by inspection of the extremity. It is outwardly rotated, frequently to a degree so that the outer border of the foot rests on the bedclothes. Little is to be gained by moving the hip except the expression of a good deal of pain, and nothing is to be gained by measurement, since the fragments have not been sufficiently displaced to alter the actual length measurement. The X-ray will demonstrate the fracture, if the reader of the plate is familiar with the clinical picture. Otherwise it may escape detection, since the line of cleavage in the cancellous structure of the femoral neck is often thin and faint, and no gross displacement is noted.

The above description applies to a patient seen a few hours after the fracture. At a later time, the details are more evident, and the X-rav shows the progressing deformity.

The patient seen in the stage of non-union presents a fairly characteristic picture. He gets about with difficulty, and with the aid of crutches. The outstanding symptoms are great pain and disability. The limb is atrophied, shortened and outwardly rotated. Movement at the hip is restricted, abduction being entirely limited. The symptoms are due to friction of the displaced fragments, and to a chronic traumatic arthritic change in the hip joint. It must be stated however, that occasionally a younger and more robust individual will survive the stage of friction of the fragments, and either by complete absorption of the neck or great upward riding of the distal fragment, make for himself a variety of unstable psendarthrosis which is comparatively painless.

Epiphyseal Fracture

This somewhat uncommon condition is associated with the name of Royal Whitman, who described it first in 1890 (¹). It consists in a variable degree of displacement of the upper epiphysis at the epiphyseal line, in which the epiphysis rotates about the neck in a downward and backward direction, in other words, the epiphysis to a variable extent, slips off the femoral neck. The displacement above described determines the nature of the disturbance of function; there is limitation of abduction, flexion and internal rotation.

The condition occurs in the period of adolescence, and most often in large, fat children of the "pituitary" type. The average age in 13 cases was 12 years; the youngest was 10, and the oldest 15. There is usually a history of injury, though the latter may be slight. There is complaint of pain and limp. The diagnosis may be made from the characteristic limitation of motion, and is confirmed by the X-ray.

Osteoarthritis

This is the common form of "stiff hip" of old people. It may be noted that it corresponds in frequency, and practically in age distribution, with the group of fractured hips in the above analysis.

It is a very slow-going progressive process corresponding in all essentials with the similar common affection of the knee joint. Its first indication is usually a sensation of stiffness of the joint on arising from a chair. There is less resistance to fatigue. Pain is generally a later symptom, although occasionally it may be present early. Frequently it is referred to the outer side of the thigh or the inner side of the knee. The pain of the later stage may be very severe. The diagnosis is simple; there is flexion-adduction reformity, usually with internal rotation. The X-ray is characteristic.

Acute Destructive (Septic) Arthritis

The relatively large number of patients seeking relief for the sequellæ of this condition emphasizes the importance of prompt diagnosis and of operation in its earliest stages.

The average age of onset in 16 such cases was 7 years, and in 6 of these cases, it was under 2 years. It would seem that a hip condition with an acute onset in a young child, with pain, high fever, swelling and extreme tenderness, would always justify an immediate arthrotomy. The occasional case which would reveal a mistaken diagnosis would not be harmed by such a procedure, which in itself would in no way militate against the application of a retentive appliance. It is to be expected that on the other hand, early and adequate drainage would materially lessen the destructive nature of the process.

Chronic Infectious Arthritis

A review of the histories of these cases discloses that their nature is essentially benign, and corresponds to the course of similar lesions elsewhere in the body. The X-ray demonstrates no bony pathology. It must be stated, however, that the last analysis, the virulence of the infecting organism, and the resistance of the individual, determine the degree to which joint damage may be incurred. The distinction between this and chronic destructive arthritis is largely an artificial one, and is dependent upon the above factors.

Tuberculosis of the Hip

This is the familiar "hip disease" of medical phraseology. In incidence, it bulks largest among the inflammatory processes involving the hip joint. It is the most important and the most serious of the diseases of the hip joint.

As a preliminary statement to the discussion of the diagnosis of this disease, it must be emphasized that it must be differentiated insofar as that is possible, from all other conditions involving the hip joint.

A chronic coxitis in a young child must be assumed to be tuberculous unless it can be proved otherwise, in the present state of our knowledge of this condition. A definite diagnosis may be extraordinarily difficult in the early cases, and it must be repeated that the X-ray is of little assistance in the early months of the disease. Girdlestone (2) has summed the matter up admirably in his recent book on "Tuberculosis of the Hip" where he states "the lack of this (a definite test, comparable to the Wassermann test) is a very great handicap, for the diagnosis rests on probabilities until either destruction has advanced to such a degree as makes the radiogram evidential, or abscess formation renders a conclusive test possible in the finding of tubercle bacilli, microscopically or by animal innoculation, in the aspirated fluid."

According to Girdlestone (p. 24) such fluid may be obtained in about ½ of cases, and that furthermore tubercle bacilli may be found in smears of "cold" pus by persistent search in 95% of cases.

The tuberculin tests possess the same significance here as with tuberculosis elsewhere in the body. Positive reactions in young children are suggestive; negative reactions tend to rule it out.

The average age of onset in 50 of 61 cases above cited, in which the point was covered, was 8 years; in 27 of these it was under 5. Since early diagnosis is most important, it is urged that every possible means be taken to assure it. If after the available means have been exhausted, and doubt still exists, the therapeutic test must be employed.

Chronic Destructive Non-Tuberculous Disease

It is generally assumed, although perhaps not always definitely so stated, that a chronic destructive lesion, unaccompanied by productive changes, is tuberculous. Two such cases are included in the above analysis, and a third has been under my observation in another hospital, in which diseased tissue removed at operation showed chronic inflammatory change without tubercle formation. The age of onset in these cases was 13, 21, and 22 years. The observation is made without attempting to draw therefrom conclusions which would place in this category any considerable number of cases hitherto classed as tuberculous.

Osteochondritis Juvenile Coxae Calve—Legg—Perthes' Disease

In general, this disease in its earlier manifestations bears a close resemblance to tuberculosis. It is however a benign condition which yields speedily to far less drastic treatment than that required in tuberculosis. In the material above cited, the case records and X-rays were sufficiently definite in three cases to warrant the diagnosis.

The characteristic changes, which occur mainly in the epiphysis, consist of fragmentation, sclerosis, and regeneration. The regeneration may be accompanied by a permanent modification of contour of the femoral head, a circumstance which has led in some clinics, to the designation of "coxa plana."

When the condition is fully developed, the X-ray demonstrates the above changes.

Congenital Dislocation

These cases constitute the largest group in the above analysis. The age at which treatment is instituted is a crucial matter in the outcome of these cases. The average age at which patients were brought for treatment was 6 years, and in 45 of the 65 cases it was under 4.

The diagnosis becomes evident when the child begins to walk. If one hip is displaced, the child limps; if both, he waddles. The trochanter is felt above its normal position, and the head of the femur is felt outside the acetabulum. The X-ray is conclusive.

The treatment at this stage is less trying to the parents, if the child's sphincteric control has been established. There is every reason to begin it as early as possible.

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WHEN TO OPERATE IN CASES OF PEPTIC ULCER*

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THE best test of one's surgical judgment is the application of it to one's own person. Especially is this true in these days of uncertainty and conflicting data with regard to the use of gastric surgery in cases of gastric and duodenal ulcer. If every surgeon would consider his patient's ulcer as his own, and to all the available data of the case add the question, "What would I want done with this ulcer if it were mine?"—there would arise a more uniform procedure in the treatment of the ulcer.

A clearly defined policy is of great assistance in arriving at a satisfactory decision in the individual case. The construction of such a policy involves first of all a consideration of the basic pathology of ulcer, the etiological factors which contribute to the so-called ulcer diathesis, the advantages and disadvantages of medical management, and finally the end results of surgery.

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The first consideration, namely, the basic pathology of ulcer, is still obscure. It is certainly simplest and possibly nearest to the truth, to regard the ulcer, like so many other diseases, as the result of diverse causes. That a neurogenic factor is present and of great importance, is apparent, both from clinical observation and the experimental production of the ulcer. It is easy to conceive of this neurogenic factor as a power behind the ulcer diathesis, and it is likewise possible to reconcile it with the other etiological factors which have been held responsible for the genesis of ulcer.

A nerve irritability, inducing spasm of the muscle, might conceivably be a precipitating or an adjuvant factor, whether the other factors were thrombosis of the capillary, with necrosis of the mucous membrane, or gastritis, or both. The neurogenic factor, then, must be borne in mind when treatment of ulcer is considered. It may well be the underlying factor in the so-called ulcer diathesis. Possibly, also, a chemical dyscrasia underlies the neurogenic factor.

But all these considerations still belong to the realm of theory. We may continue to surmise and theorize and work upon the problem of the basic pathology, and continue to indict the so-called ulcer diathesis for recurrence, but for the very reason that the etiology is still uncertain, we are confronted with the necessity of treating the ulcer as if it were a pathological entity.

The first and one of the most important considerations in the treatment of ulcer is the accurate diagnosis of the condition. There is a tendency even today to accept a history of indigestion with an X-ray report of a defect as conclusive evidence of active ulcer. Where protracted medical management is contemplated, it is essential that this should be correctly applied to a real lesion. A carefully taken history with stress upon the character of distress, time of its occurrence, relief, remissions, constancy, or change in character of symptoms, actual observation of the patient after distress has been stirred up, and observation of relief by cold food and alkalies, gastric analysis, stool examinations, and finally fluoroscopy are all essential to the diagnostic routine.

Success in treatment has undoubtedly been obtained by both surgical and medical methods. Cures have undoubtedly been spontaneous. In the induced cures, the control of the free hydrochloric acid is considered by most observers to be the factor of prime importance. Medical management neutralizes the acidity temporarily, gastro-enterostomy usually decreases or neutralizes the acidity permanently, subtotal gastric resection decreases or removes the acidity and the ulcer. Relief of symptoms occurs with all these forms of treatment, but with the latter with more completeness and certainty.

If the ulcer is not to be removed as by partial gastrectomy, neutralization of the free hydrochloric acid is the object of treatment for the relief of symptoms and the healing of the ulcer. Relief of symptoms and healing of the ulcer when it occurs is obtained by neutralization of the free hydrochloric acid, either by accurate medical management, or by gastro-enterostomy. Recurrence of the ulcer or occurrence of a new ulcer may occur with either of these methods of treatment. With the complication of an unrelievable pyloric obstruction, gastro-enterostomy serves the double purpose of providing a new channel for the passage of food and a means of neutralizing the hydrochloric acid.

The chief advantage of medical management is its comparative safety. There is no operative risk. Perforation has not occurred in our experience of the past three years in cases under medical management. Recurrent hemorrhage has occurred in 1.2 per cent. or two out of one hundred and sixty-one cases. Eighteen cases of this series had massive hemorrhage before treatment. In both cases in which a second hemorrhage occurred, the recurrent hemorrhage was less severe than the one which occurred before the beginning of treatment. A danger arising occasionally from this method of treatment itself is alkalosis. In 1.8 per cent. of our cases treated intensively with alkalies, dryness of the pharynx, nausea and vomiting, pruritus, albuminuria, and stupor have been observed. All of these symptoms were relieved by the omission or reduction of alkalies, and in only once case did medical management fail for this reason, and surgery become necessary.

It may be assumed, therefore, that the dangers of medical management are practically negligible. The disadvantages of its use lie in the awkwardness of constant neutralization. It is a commonly used argument against medical management that it can be carried out only by people of considerable intelligence and leisure. However, by painstaking instruction in the necessity for half-hourly neutralization with either food or alkalies, the patient is led to adapt this treatment to his mode of living. In the experience of our Clinic, it can be accomplished, with the aid of thermos bottles, in individuals pursuing all forms of occupations—policemen, travelling salesmen, doctors, nurses, mill workers, teamsters. In fact, the only patient in our Clinic who has found it impossible was an old man of eighty, retired from active business, and with nothing else to occupy his attention.

A carefully outlined regimen, with careful check-up observations during an over-night stay in the hospital, every two months for a year, has been found valuable from the standpoint of the patient's safety and loyalty to his purpose.

With regard to the other disadvantage of medical management, namely, the recurrence of symptoms, statistics are perhaps more misleading than in any other field of medicine. Medical management means to some physicians the use of a more or less accurately prescribed diet which the patient uses more or less accurately, with no preliminary bed rest, and no persistent attempt to neutralize gastric acidity. Yet many surgeons accept the results of this method of treatment as the results of medical management. Their indications for surgery will inevitably be more frequently encountered than in the Clinic where a systematic and well controlled form of treatment is insisted upon.

In our Clinic, where in the past three years careful medical management, with neutralization by the Sippy method has been carried out (by the Gastroenterological Department), in association with the Surgical Department, and an effort is being made to follow up all patients for ten years after the beginning of treatment, results of medical management have so far been satisfactory enough, so that it is a routine procedure to submit the new case, unless it is an acute perforation, to our medical attempt to heal the ulcer. It is not unusual for a referred case to give a history of the unsuccessful employment of previous medical treatments and to come to the Clinic prepared for surgical treatment, only to be submitted again to a more accurate medical management with relief of symptoms. Only in cases of gastrojejunal ulcers do we hesitate to recommend medical management because of its less satisfactory results, and this fact adds further grounds for preliminary caution in relation to the employment of gastro-enterostomy.

The routine use of medical management, in order to be a safe procedure, must be affiliated with a definite policy for the substitution of surgery, when this is indicated. Our policy as to the question "When to operate in Peptic Ulcer," is to operate,

1st. In cases of perforated ulcer.
2nd. In unrelievable obstruction.
3rd. In cases of recurrent hemorrhage.
4th. In all cases where there is a reasonable ground for suspicion of carcinoma.
5th. In cases of failure with medical management.

With regard to the first indication, there can be no diversity of opinion. The acute perforated ulcer is a surgical emergency.

The second indication, unrelievable pyloric obstruction, occurs very infrequently in the non-malignant pyloric or the duodenal lesion. Numerous cases of apparent obstruction have been relieved within three weeks of careful management and presumably cicatricial tissue proven to be in large part the oedema and spasm of an acute inflammatory process. It is a familiar fact that the so called hourglass deformity usually proves to be spasm or the result of adhesions. Obstruction due to ulcer medically unrelievable is, therefore, in our experience, a rarity.

Recurrent hemorrhage, in spite of relief of symptoms and other evidence of healing of the ulcer, makes it necessary to substitute surgical for medical measures. Surgery in such cases, however, should be directed toward the removal or control of the bleeding vessel. Gastro-enterostomy alone in such cases, where medical management has failed to produce results, is illogical. Excision of the ulcer alone or by partial gastrectomy is the desirable procedure.

The fourth indication, a reasonable ground for the suspicion of carcinoma, concerns the lesion on the gastric side of the pyloric sphincter. Fortunately, X-ray evidence of improvement is more definite in gastric than in duodenal lesions. Fortunately, also, X-ray evidence of improvement in the gastric lesion with accurate medical management, is in our opinion fairly conclusive evidence of non-malignancy. Hence when such a lesion on the lesser curvature, the fundus, the posterior wall, or at the pylorus, fails to diminish in size within two to three weeks after the beginning of medical management, it may be suspected of being malignant and should become a surgical case. Up to the present, such X-ray evidence has, in our experience, always been substantiated by either the persistence of occult blood in the stools or the incomplete relief of symptoms. This test of malignancy has been of great value to our Clinic for three reasons: first, because it aids greatly in the early diagnosis of gastric carcinoma; secondly, because it protects from exploration and the operative risk of partial gastrectomy the patient with a non-malignant ulcer which previous to treatment had appeared suspicious; and thirdly, because subsequent to its use the reasonable suspicion of carcinoma justifies a radical procedure in a case where, with the lesion visible and palpable, the surgeon might still be in doubt as to the malignant nature of the lesion.

Up to the time when this routine medical treatment was adopted, exploration was of uncertain value. In those cases in which, with the abdomen opened, carcinoma was definitely obvious, the gross preoperative diagnostic data, commonly accepted, were already present. In many cases in which the preoperative diagnosis of gastric carcinoma could not be made because of insufficient data, then even with the abdomen opened and the lesion under direct vision and palpation, there was often great uncertainty as to whether the lesion was simply a chronic ulcer or an ulcer harboring malignancy. In such a situation the operation is really not an exploration, since one always resects at this time when in doubt. This has resulted in our hands in the past in the removal of ulcers suspected of malignancy, but postoperatively proven benign in patients who were thus denied the trial of medical treatment and, because of unfounded suspicion, prematurely subjected to the risk of surgery.

The fifth indication concerns the group of cases which in our three years' experience with systematic medical management is still a small one—namely, the group in which surgery has been done for failures with medical management. It is entirely possible that this group will increase in size as the years of follow up observation increase, and it is but fair to say that there must always be a group of individuals who will have recurrent symptoms and will require recurrent treatment.

As to the type of operation, if gastro-enterostomy has a mortality of two or three per cent. and an incidence of gastro-jejunal ulcer of between three and thirty per cent. (and I do not think that it is three, and in all probability it is not thirty), if, for instance, it is ten per cent., or even seven to eight per cent., and if in addition to this there are cases in which after gastro-enterostomy jejunal ulcer does not occur, but relief from pain or bleeding in the original ulcer is not obtained, then there are few of us who would wish to have this operation performed upon us when any other form of treatment or relief is available.

Now with regard to partial gastrectomy. There is no question but that it removes and quite positively controls acidity and eliminates later possibility of hemorrhage, perforation and malignant degeneration. If we could be certain that the ulcer were a pathological entity, we should be more ardent advocates of this procedure. Its disadvantages are: (1) the possibility of recurrence of ulcer even with low or absent acid (such recurrences have occurred in our experience, and have been personally reported to us in the Clinics of Mayo, Schumacher and Moynihan); (2) the possible dangers of permanent anacidity with especial relation to the non-bactericidal gastric secretion and pernicious anemia; (3) the high mortality.

In justice to the patient and to the surgeon, mortality rates must be regrouped and announced under several different headings. For example, in our experience, the less urgently indicated the partial gastrectomy is, as in ulcers on the anterior wall of the duodenum and gastric ulcers on the lesser curvature close to the pylorus, the easier it is to do and the lower its mortality. On the other hand, when this operation is applied to the old eroding ulcers which have involved the pancreas and must be cut away with marked oozing, leaving a duodenal stump which is difficult to close satisfactorily, or to ulcers high on the lesser curvature, or to the gastro-jejunal or jejunal ulcer with resection of a portion of the jejunal wall, the mortality rate undoubtedly rises.

Especially in gastro-jejunal ulcer should the mortality rate of partial gastrectomy be known, since the surgeon who employs gastro-enterostomy must have in mind the possible occurrence of gastro-jejunal ulcer and this possible secondary operative mortality. It is greatly to be desired, therefore, that mortality rates be re-grouped:

(1) for the high gastric ulcers; (2) for the eroding posterior wall ulcers with marked retroperitoneal induration; (3) for the gastro-jejunal ulcer, and (4) for the simple anterior wall duodenal ulcer with a free and mobile duodenum and the mobile lesser curvature ulcer close to the pylorus.

Jejunostomy, even though unsatisfactory in principle, in that the lesion is not removed and the causative factors probably still remain, must have a place in the surgical treatment of high gastric ulcers and gastro-jejunal and jejunal ulcers in patients who obviously will not stand subtotal gastric resection.

We must have in mind that the surgery of gastric and duodenal ulcer viewed as a whole is much like the medical treatment. They are probably both about equally unsatisfactory from the point of view of removal of basic pathology, and must be considered primarily not in terms of curativeness, but in terms of eventual mortality. For example, we prefer to treat uncomplicated duodenal ulcers medically through several recurrences of pain, and out of 165 petic ulcers, 127 of which were duodenal and 38 were gastric, under our care during the past three years, we have seen no malignant degeneration during treatment and none has perforated.

It is, therefore, our duty to employ first, and with the utmost conscientiousness, the non-operative form of treatment with its almost negligible mortality, and to accept very seriously the responsibility for the thoroughness with which this scheme of treatment is outlined and taught to the patient. We feel sure that just as Dr. Joslin at our hospital has been able to educate patients to manage their diabetes, so we are becoming able to educate patients to manage their ulcers.

Finally, when one approaches surgery only after the failure of a well planned and executed method of medical management in a patient who has been thoroughly taught its application, one may have a clear conscience, in that the patient must either accept the pain and discomfort of the persistently active ulcer, the possibility of death from obstruction, hemorrhage and malignancy, or the uncertainties of operation. We feel very strongly that surgery is not the primary method of treatment and that because of the recurrence of ulcer and because of the mortality rate of operation, it becomes the duty of the surgeon who accepts an ulcer case which has been a so-called "Medical failure" to be highly critical of that medical treatment, and before suggesting surgery to re-submit such a patient to medical management of known thoroughness both in outline and in method of teaching to the patient. I speak from the position of a surgeon, but it is equally applicable to the medical man, that the uncritical acceptance of medical failures and the too ready application of surgery is not sound advice to the trusting patient.

In conclusion, we would reiterate that our answer to the interrogatory title of this paper, "When to Operate in Cases of Peptic Ulcer," is:

(1) In perforated ulcers;
(2) In ulcers with unrelievable cicatricial obstructions;
(3) In cases of recurrent severe hemorrhage;
(4) In all cases where carcinoma can be reasonably suspected;
(5) In cases of failure with known adequate medical management.

THE METABOLIC ACCOMPANIMENTS OF ACUTE INTESTINAL OBSTRUCTION

By HOMER L. NELMS, M.D., ALBANY, N. Y.

FROM a clinical standpoint intestinal obstruction can be divided into two great groups, namely the mechanical and the paralytic forms. In the mechanical form there is a definite interference with the fecal current as seen in strangulated hernias, kinks of gut caught by adhesions, volvulus and so forth. In this group the muscle tone is preserved for a time at least and nature endeavors to get rid of intestinal contents by setting up reverse peristalsis. These patients vomit large quantities of liquid material, greenish at first and later having a definite fecal odor. It is the fecal vomiting that often makes the diagnosis in this group of cases.

The paralytic form of intestinal obstruction is seen occasionally in the acute infections where there is loss of muscle tone and general asthenia. It follows abdominal section where there has been much handling of the intestines and is seen occasionally in general peritonitis. Here vomiting is not so apt to take place because the same mechanism that interferes with normal peristaltic action also prevents reverse peristalsis.

On physical examination these patients show a distended abdomen which is tympanitic on percussion; this may extend well under the costal cage in the upper left hypocondrium and when present means a dilated stomach. The pulse and respiration vary according to the degree of toxemia present, late in the course the pulse is thready and weak and the respirations rapid and shallow. The temperature may be elevated, normal or subnormal.

In intestinal obstruction the examination of the blood gives us most significant findings and this holds true whether the obstruction be of the paralytic or the mechanical type. These patients all show a retention of nitrogenous products; within a few hours this retention occurs and continues to soar until the end comes or relief measures are instituted. The non-protein nitrogen frequently reaches 100 to 300 mg. per 100 c.c (25 to 35 is normal) and the urea nitrogen is retained in corresponding amounts. A non-nitrogen protein of 100 mg. or more calls for a serious prognosis; there are cases in the literature that have recovered with higher retentions but these cases are rare. There may also be an increase in the creatinine content of the blood which may reach 8 to 10 mg. per 100 c.c. of blood (normal 1.5 to 2.5 mg.). This is not always present but when so indicates an increased endogenous metabolism.

The Mayos have shown that acute intestinal obstruction is always associated with a renal lesion as evidenced by the presence of albumin and casts in the urine but there is no scientific evidence to prove that this marked retention of nitrogenous products is primarily renal in origin; on the other hand there is much to indicate that its genesis is not renal but intestinal.

The carbon dioxide combining power of the blood plasma is increased together with a corresponding change in carbon dioxide tension of the alveolar air indicating that these patients among other things are suffering from an alkalosis. The practical significance of this point is that they should not be given sodium bicarbonate by rectum as is often done. They already have an alkalosis, why add to it by giving more alkali?

The blood sugar findings are not especially significant; true there is often an increase in the blood sugar content and sugar often appears in the urine but how much of this is due to blood concentration and how much to altered sugar metabolism is difficult to state. The patients that come to early operation or go on to recovery are soon able to handle high carbohydrate diets so that it is believed the sugar function is not impaired to any great extent.

The total chlorides show a decrease in the blood plasma, frequently reaching a level of 200 mg. or under (500 to 650 is normal). Just how this is brought about is not known at present but it is a clinical fact that the chlorides are low and patients improve when they are supplied. It has been suggested that the chlorides have a detoxifying action on the toxins that appear in this condition and the literature contains some experimental evidence to substantiate this fact.

The experimental laboratory has recently taught us much about the pathology of intestinal obstruction. The nearer the duodenum the obstruction the more rapid and more fatal is its course and this fact has led some to venture an explanation of the exact origin of the toxic substances that cause these marked metabolic disturbances. One theory is that there is a disturbance of protein metabolism and that these toxic bodies are really protoses which for some reason are unable to be carried down to the amino-acid stage; another theory that has gained almost equal prominence is that the mucous membrane of the duodenum secretes a something that is absorbed and which has this marked effect on the individual. Be the cause what it may it is an accepted fact that intestinal obstruction is accompanied by marked metabolic disturbances and that the seriousness of the condition depends upon the extent of these metabolic changes that occur.

The treatment of acute intestinal obstruction does not only call for the relief of the obstruction but for the management of this altered metabolism. In the mechanical form early relief of the obstruction is the treatment par excellence; if this can be done before there is such a marked alteration in metabolism the prognosis is good. Dr. Finney of Baltimore once said that if he had an intestinal obstruction he would rather have the occasional operator operate on him early than the best surgeon in the world operate on him late. By early operation these metabolic complications can be avoided. An enterotomy high up is always indicated if the obstruction cannot be reached or if it has persisted for a number of hours. It is not bad surgery to do an enterotomy in the paralytic form of obstruction as this drains toxic material from the upper intestinal tract and assists in re-establishing a normal metabolic equilibrium.

Another procedure of almost equal importance is the so-called duodenal drainage; here a small specially devised tube is passed through the nose into the stomach and attached to a bottle at the side of the bed; the distal end of the tube must be lower than the stomach. Duodenal contents regurgitated into the stomach are thus siphoned off into the bottle. If the tube stops draining or becomes clogged a small syringe is attached and water gently forced through to clean it out. Even without an enterotomy patients will drain quarts and quarts by this method. One patient I recall drained 32 ounces the first hour the tube was in place. The tube is fastened with a piece of adhesive to the side of the face and is so small that it can remain in place for 48 to 72 hours with very little if any discomfort.

These patients are all dehydrated and require large quantities of water and as water cannot be given by mouth other routes must be utilized that is intravenously, subcutaneously and by rectum. For this purpose sodium chloride solution is by far the best. It helps replace the depleted chlorides of the blood and even by rectum is tolerated well. Some have considered sodium chloride solution the nearest drug approach we have to a specific in intestinal obstruction.

ACTIVITIES OF THE SUFFOLK COUNTY MEDICAL SOCIETY*

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WHEN you asked me a few days ago to report at this meeting, the activities of Suffolk County Medical Society, I thought then that just a narrative of the work done would answer. It occurs to me now that I would like to say more.

We all will admit, I believe, that the final accomplishment of a medical program of work must be done in the smallest unit of medical organization; the distribution of the results of medical progress, whether curative or preventive, must originate in the ultimate organized unit. We are not so ready to admit, I believe, that the conception of activities starts there more often than in larger units of organization. The importance of a County Medical Society is often unappreciated. Just as in a government made up of states, certain functions belong to the government and certain rights remain with its component parts—practically true in all of its functions. Granting the great value of the county unit and recognizing its importance in the scheme of public health development, the county, for convenience and further development, pools its interests with a few accessible counties and conducts an organization known as the District Branch—a poor name, possibly, for branch means a part of something. It would be better called District Society. Up to this point, everybody has voice and vote in the organization, everything may be conducted on the town meeting plan where everything can be discussed until completely thrashed out. From here on organized medicine obviously takes a different form of government and administration.

In reality, the District Society is a complete organization made of several independent county societies and the best existing force to foster and guide the evolution in medicine, now going on faster than ever before. Final responsibility for the execution of a medical program lies with the County Society, inevitably; there is no exception. It is the ultimate unit and just as essential in any public health distribution plan, or advance in application of curative medicine as the individual doctor is in all features of health or medical welfare distribution to individuals. Just as we must not forget that the doctor sooner or later enters every home because sooner or later everyone gets sick, so we must not forget that the County Medical Society sooner or later must put over every medical program because there is no one else to assume the final responsibility.

As a background of the reaction of the Suffolk County Medical Society to its responsibilities, I want to speak of the effort to establish a tuberculosis hospital in 1913—fourteen years ago. The County Society bought a suitable site of 40 acres, conducted a campaign at a general election to carry a referendum vote, won it by 2,000 majority against marked political opposition and then turned the land over to the County at cost. The Society has continuously worked for the hospital. It has helped to get appropriations aggregating $350,000 for buildings, much more for maintenance, probably $1,000,000 in all, and has always retained majority control of the Board of Managers.

In 1921 a Monthly News Letter was established and has continued ever since. It was almost the earliest in the State. It was established to unite the profession, to keep medical men posted on local medical needs, and to develop their sense of duty to the community. In that year we found that one mother in 172 died in childbirth in Suffolk County. This, later, led to plans to develop graduate education along practical lines.

It was also found that certain general practitioners were performing major operations for which they had no special training, and a free discussion has created sentiment against this.

The Society made an intensive survey of the four general hospitals of the county two years ago and published its report. The influence of this has led the county hospitals to improve their methods and facilities. During the coming year the survey will be remade for the purpose of bringing it up to date, incorporating the advances and making general suggestions toward advancing the standard of practice.

Two Pediatric Clinics of nine sessions each have been held in the county—the attendance of physicians average twenty.

The Society advocated a General Hospital for the indigent and an efficient one has been established at Yaphank.

Suffolk County stands high among the counties of the State in its tuberculosis work. The interest taken by its physicians in the anti-tuberculosis work is striking. Physicians are the leaders of the County Tuberculosis and Public Health Association. To illustrate its efficiency: the death rate in the county per 100,000 persons was 120 in 1918. In 1925 it was 44.7 per 100,000 persons. This is the result of the application of the principle of examining all contact cases and keeping it up for at least five years.

Suffolk County Medical Society has endorsed by resolution the principle of accepting financial assistance from other sources, whether personal or lay organizations, and is in receipt of an income which it uses to finance its activities. In Suffolk we do not fear the Greeks "even though they come bearing gifts." The only condition is that this money shall be administered by the County Medical Society.

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* Read before the Second District Branch on January 7, 1927.

In 1926 the News Letter, published by the Society since 1921, was expanded so as to represent the County Tuberculosis and Public Health Association, the Board of Child Welfare, the County Public Health Nurses' Association, the Red Cross, and all other medical, health and welfare organizations in the County, for the purpose of furnishing news information—a sort of clearing house—so as to prevent duplication of effort, to limit waste, and to increase efficiency. This effort is working well and is entirely under the active constructive leadership of the County Medical Society. This conception of organization is new in the State of New York. We are succeeding in winning cooperation of all the lay health organizations in the County and creating a greater organized health force than I am aware of having been attempted in any other county.

The News Letter is now sent to doctors, lawyers, clergymen, political leaders and to interested organizations and laymen. We send out 1,000 copies now and expect it will be 2,000 before the year is over. We are financing it, paying our bills as we go, and providing for expansion.

One of our present major activities is creating public sentiment by an active campaign in writing and speaking, looking toward the establishment of a County Health Department.

Growing experience in public health work in Suffolk County leads to the conclusion that little or no further real advance or likelihood of a permanent uplift in the promotion of health and prevention of disease will occur unless there is a better administrative organization. The Medical Society of Suffolk expects to bring about this feature of organization this year and give to the county the same possible efficiency in health matters now given to New York or Syracuse or Buffalo.

The Society has taken an active interest in promoting a wholesome milk supply and has stimulated one hospital—the Southside—to equip its laboratory to do bacterial counts of milk samples for little or no compensation if needed.

Suffolk County has, of course, endorsed toxin-antitoxin and the campaign is going on. It lags and flourishes in spots—no better and no worse than elsewhere.

We are about to establish a nose and throat clinic at the Southside Hospital modeled on the plan of the Cornell Clinic and adapted to local needs.

Some random studies show that there are probably upwards of ten thousand children in Suffolk County suffering from affection of the throat and requiring treatment of some kind.

The correspondence courses in graduate education authorized at the last annual meeting of the Suffolk County Medical Society is arousing interest. Five experiments are now under way to develop such courses.

Physical health examinations are being promoted. Its public health and legislative committee are stimulated to greater effort. With all these things, however, we have one great and fundamental activity—the promotion of good will and the spirit of service—so as to make a united force of the entire membership. We have no factions. We have good leaders and good followers.

When we wanted support for legislation last year every doctor but three of the 150 in the entire county, when requested, responded by writing letters to our members of the legislature. Our plans have always been reasonable, possible and definite. Some of our undertakings are complete—others have not yet ripened into maturity. We have nevertheless gained a perspective that no one could have gained except by a more or less similar period of observation and study and experience.

I wish to quote the following from the inaugural address of the incoming president of the Suffolk County Medical Society this year, Dr. Frank Overton:

"Fortunate is the County Society which can develop a consistent policy from year to year, and which has an interested personnel to carry on its work. Officers may come and go, but those of Suffolk County Medical Society continue active in the Society long after their terms expire. Office holding is merely a preparatory training for sustained interest in the affairs of the Society."

The Suffolk County Medical Society over a period of twenty years has fulfilled its avowed purposes to a very large degree. Its record for initiation and accomplishment has done much for the economic uplift of its members, for public health, and for the advancement of the standards of practice—both in curative and preventive medicine.

ACTIVITIES OF THE MEDICAL SOCIETY OF THE COUNTY OF QUEENS*

By EDWARD A. FLEMMING, M.D., RICHMOND HILL, N. Y.

THE activities of the Medical Society of the County of Queens during 1926 were many and varied. We deem it sufficient for this report to briefly refer to some of the major or more important activities of last year which were attempted or consumated.

In the field of public health early in 1926 the Medical Society of the County of Queens advocated a County Hospital. We found that our population had grown to a variously estimated figure between 644,000 and 713,000 people. We knew our acreage area was estimated at over 69,000 acres. We knew in point of size, we were the largest of the five boroughs of this great city of New York, and yet we were without a public hospital. A unanimous resolution was passed in one of our meetings, early in the Spring calling our attention to our great need in this respect and delegating our Public Health Committee to look into the matter. A report from this committee showed a widespread desire for such an institution. Ardent efforts were made and are still being pressed to get such an institution started. We have reason to believe that this movement properly directed can be carried to a successful conclusion.

Another activity of our Public Health Committee was to stage a drive among our County Society members to stimulate them to not only advocate but to actually have an annual periodic health examination. Twenty-two per cent of our members responded. We hope to push this matter still further in 1927, inducing a larger population to participate. Then we hope to stage a county-wide campaign for annual periodic health examinations. This campaign to include everybody from children to old age, male or female.

We believe periodic health examination is a salable product, we purpose to sell it to the laity of our county by whatever means we can. In this movement we will combine chambers of commerce, public health associations and even the Board of Health itself. Also movie theatres and borough newspapers, if we can secure the necessary funds, always an acute subject in Queens.

In the field of graduate education we offered to physicians of the county 28 clinical courses. Twenty-three and one-half per cent of our county membership availed themselves of these courses. Our Committee on Graduate Education offered 33 Friday afternoon talks. These talks were attended by over 1,200 men. In other words, graduate education was carried to over 1,200 practitioners by our Friday afternoon talks. Dut to more than $770 contributed by the Queensboro Health and Tuberculosis Association for use in graduate education and due to the fees collected from our courses we are going into 1927 with about $100 on the credit side of the ledger for use in graduate education. That is, graduate education in Queens has not really taken one dollar out of our County Society treasury.

We believe graduate education has been a great force for good in our County Society. It has been a leveller of inter-county walls. It has been the solder so to speak, tending to establish contact between members in distant parts of the borough. It has been a melting pot tending to fuse and weld into one our County Society. Men no longer speak of being Long Island City or Rockaway men. They are all proud to be recognized as Queens County men. This is one debt which the men of Queens County are glad to publicly acknowledge and give the credit where credit is due—to *graduate education.*

Our Membership Committee must be given mention in this report. Through its efforts our roster has been increased 21½ per cent in 1926. These figures speak for themselves. The State Medical Directory of 1926 lists the number of physicians in the Borough of Queens as 596. Excluding undesirables and those who for some reason or another cannot qualify, the best possible number we could have upon our county books would be 500, in the Borough of Queens. It is at this goal we are aiming. The slogan of our 1927 Membership Committee will be,

"EVERY QUALIFIED PRACTITIONER OF MEDICINE IN QUEENS A MEMBER OF HIS COUNTY SOCIETY."

One of the most pleasing things of officers of the Medical Society of the County of Queens which occurred during the year of 1926 was the increased interest and increased attendance at our stated meetings. Our attendance at our stated meetings in 1926 was increased 13 per cent over our attendance at the stated meetings in 1925. The increased interest cannot be expressed mathematically.

We believe our society is in better shape financially and numerically, and we are sure it is stronger in enthusiasm and unity, than it has ever been before. We are looking forward into 1927 full of hope.

We stand ready to take our place with our neighboring fellows of the State Society, and to do our part in an energetic and forceful manner, in any work which organized medicine has to do.

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* Read before the Second District Branch, January 7, 1927.

EDITORIAL

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For list of officers of County Medical Societies, see Journal of October 1, 1926, advertising page xxvi.

CONCERTED ACTION IN PUBLIC HEALTH

Health is an adjustment to one's environment. A primitive end of adjustment is sufficient to produce a superb body in central Africa where nature provides food already prepared, and clothing and housing scarcely enter into the thoughts of the people.

A highly specialized adjustment is necessary everywhere in New York State if the citizens are to be healthy and vigorous. In addition to the medical profession, there must be departments of health to secure coordinated action against threatening diseases; and there must be lay organizations to influence governmental agencies in health relations and to educate the people regarding health matters.

Medical societies throughout New York State have come to cordial agreements with boards of health in regard to their peculiar fields of effort. The medical societies are developing equally cooperative relations with lay health organizations, as is evidenced by the actions of the Cattaraugus County Medical Society (see page 82) and the appointment of a committee on Public Relations by the Council (see page 81).

THE PUBLIC RELATIONS COMMITTEE

Interest in the practice of preventive medicine permeates all classes of society and all countries of the globe. Statisticians have shown that to it may be attributed the marked increase in the expectancy of life noted in the last generation. Governments have proven that some territories, particularly in the tropics —heretofore uninhabitable because of the ravages of disease—may be made comparatively safe to human beings through careful observance of well established practices of sanitation and public health.

Probably the most objectionable manifestation of the widespread cooperative interest in preventive practices among the public is the success which the most nonsensical quackery meets which advertises to cure or prevent any and all pains and aches. Until within the last few years, the only agencies to give public expression to methods of prevention and make concerted efforts to incorporate them into the habits of daily life, were the public health agencies, governmental and voluntary. Physicians, as a rule, were skeptical of the benefits that would be derived from practicing medicine by broadcasting methods, and feared they were being driven to state medicine. Open hostility to public health activities has been shown at times, but recently a more cooperative spirit has been developing. Dr. Luckett in a paper read before the section on preventive medicine at the A. M. A. meeting in Dallas, groups the reasons for this antagonism under the following heads: "(a) Ignorance of public health practice on the part of the physicians, (b) Improper methods and policies on the part of health workers, (c) Mercenary motives of some influential physicians, and (d) An often unconscious suspicion of all governmental activities and of those who promote them."

The practice of preventive medicine and public health activity are not synonymous; they have some common ground, but each extends from that point into a field that should be more or less its own. The average physician is not a trained sanitarian and has repeatedly shown his inadequacy in promoting educational and informational activities and, on the other hand, the mobilization of the public against the inroads of an epidemic or unhealthful practice is very different from the scientific advice to be given the individual in regard to his own body and habits. This distinction is being recognized by all health workers as is evidenced by the type of campaign being waged today in favor of periodic medical examinations of the apparently well and by the effective cooperation of physicians and lay organizations in the anti-diphtheria activities.

Through the Public Relations Committee, recently authorized by the Council the State Society hopes to assure the public of the willingness and intention of it and its component County Societies to cooperate with all health departments and voluntary groups whose activities enter the field of health, in producing programs that will guarantee the greatest benefit from all public health and preventive medicine activities.

George M. Fisher.

STATE AID IN HEALTH WORK

State medicine was first proposed as a method of taking medical service to that great group of people who could neither command the services of expert physicians in cases of sickness, nor could adjust their lives to a wholesome manner of living. The insinuation was that lack of interest was the reason that physicians failed to afford medical service to the poor, and the threat was made that the state would provide the medical service if the physicians would not do so.

A thorough trial of state or socialistic medicine was made in Europe, and it demonstrated the facts that the medical service was poor, and that the people were dissatisfied with it. The reasons for the mutual dissatisfaction are plain. No one can go into the market and *buy* disinterested medical service, such as that given by family physicians to whom night is as day and storm as fair weather when one of their patients is in distress. Neither will the people cooperate or lift their hands to help themselves when medical service is presented to them on a silver platter.

Everything worth while comes as the result of effort. Medical service that is of value is that which the physician renders with a wholesouled devotion to duty, and its result will depend on the efforts of the family to follow his directions at the cost of time and effort and money. All these elements were lacking in state medicine.

However, there has been a universal development of the idea that the state has an important place in public health work. Community responsibility is recognized in problems connected with industry, poverty, crime, education, and all other questions affecting individuals. Hospitals, health departments, and public health nurses are all necessary in doing public health work in a community. But all these means of work cost money; and money is unequally distributed among both individuals and communities.

Shall the richer communities provide their own health workers, while the poorer districts go without modern medical service? The modern answer is that each community shall contribute according to its means. Now the means at the command of any community are two-fold: First, physical, which actually resolve themselves into the financial; and second, spiritual, which consist of a willingness to put forth such efforts as are reasonably possible.

All communities are on an equality in regard to their spiritual means, for the poor community may try as hard as the rich one.

Out of this conception of local self-help has risen the modern idea of state aid that is taking the place of state medicine. The New York plan of state aid in public health is that the state shall bear half the expenses of certain health activities which a village, town, or county shall undertake of its own accord. Public health nursing, child welfare, local laboratories, and county health officers are some of the projects in which the State of New York is already giving aid to local units.

The plan of state aid in public health lines received the hearty approval of Governor Smith in his Annual Message (see page 89). Physicians may now feel encouraged to undertake the promotion of public health work along lines which would have been impracticable a few years ago. Moreover, the people themselves, as represented by lay health organizations, are firm supporters of the plan of state aid of public health work.

Physicians feel encouraged to do their conscientious share of public health work, since there is an increasing assurance that their efforts will be appreciated and their advice followed.

THE CHIROPRACTIC HEARING

The investigation into the merits of chiropractic now being conducted by a joint committee of the Senate and Assembly may have important bearings on future legislation. The chiropractors have come before the Legislature every year for over ten years, and have produced much evidence in favor of their official recognition. Last Spring the Legislature granted their request for an opportunity to present their claims to an investigating committee with the understanding that the committee would suggest whatever legislation may be necessary for the public interest.

Two hearings have already been held, and other sessions are promised for the near future. The chiropractors have been treated courteously, and fairly, and have been allowed entire freedom in the presentation of their arguments. What these arguments are may be seen by referring to the reports on page 85 of this Journal.

So far the chiropractors have given no hint of discord in their ranks. The evidence has been that regarding the pure chiropractic practice advocated by B. J. Palmer, the founder of the cult. But in 1924 and 1925 this Journal printed several articles quoting B. J. Palmer's criticisms of the actions of a large proportion of chiropractors who practice many manipulations which have no relation whatever to chiropractic.

The question will surely arise, "What is chiropractic?" The American Medical Association answers that question in its Bulletin for April, 1925, by quoting the definition of chiropractic taken from the laws of twenty-seven states that have permitted the licensing of chiropractors. There is no consistency in the definitions. A chiropractor in Kansas may adjust by hand "any displaced tissue of any kind or nature," while in Arizona he may adjust only the spinal column; and between the two extremes are all grades of permissions.

Physicians will be heard in rebuttal of the claims of the chiropractors; but besides those who will appear at the hearings, every physician can prepare himself to speak to his patients and friends about chiropractic and explain the grounds of medical practice as contrasted with those of the cultists.

COUNTY HEALTH OFFICERS

While doctors are individualists, they also recognize the necessity of group action. A doctor in his ordinary practice acts as an individual who deals with a patient, also an individual, who has, let us say, typhoid fever. The doctor's responsibility extends to others besides the patient, for it is his duty to protect the other members of the family, and also the neighbors from catching the disease. But suppose the patient caught the disease from a public water supply, the duty of prevention then passes to the governmental officers of the municipality, and back of them, to the voters and taxpayers who put the officials in their places. Thus there is clearly a direct responsibility on the trinity of public health forces—the physicians, the health officials and the lay organizations, such as tuberculosis committees, chambers of commerce, and civic improvement societies. The health responsibility of laymen and governmental officials is now generally recognized, but the establishment of machinery to secure community action, either official or voluntary, is slow in developing. But the movement has advanced sufficiently to indicate the general lines along which the machinery will be planned.

Physicians and lay health workers have reached an agreement that the county health plan is the one adapted to rural and semiurban communities. The old fashioned system of a local health officer for each village and town is well adapted for dealing with individual cases, such as a scarlet fever patient, or a polluted private well. But it is not adapted to conditions whose control require group action. An ordinary dairyman, for example, supplies people in two or three municipalities, and the inspection of his plant and the bacteriological examination of his product must be done by each health office district if a real control is to be exercised. A dairyman whose milk is condemned in one village may sell his product in the next village where the oversight is lax. A county unit has been proved to be about the right size to secure efficient public health work. The plan is endorsed by Governor Alfred E. Smith in his Annual Message; it is advocated by the officers of the Medical Society of the State of New York, and it is being actively promoted by several county medical societies of New York State. The principle is that the present system of local health officers shall be retained in order to deal with individual cases, and that a county health officer shall deal with those conditions which require concerted group action.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Restrictions on Consumptives.—A quarter century ago people were becoming aware of the contagiousness of consumption, and were demanding stringent measures of quarantine against those who had the disease. This Journal for January 1902 considers the problem in an editorial which reads:

"Popular sentiment is generally hard to awaken, and very likely when it has been aroused to swing to the opposite extreme and be unduly sensitive and unreasonable.

"Nothing in medical literature better illustrates this than the popular attitude toward tuberculosis. It is only a short time since the disbelief in the communicability of tuberculosis was almost universal. Now the public, with its half knowledge, is firmly convinced that the disease is not only communicable but contagious, and we must expect to see much unnecessary hardship inflicted on this diseased and defenseless class.

"Because of a declaration by the Surgeon-General of the Marine Hospital Service, that pulmonary tuberculosis was a dangerous, contagious disease, the Superintendent of Immigration has issued an order that in future all immigrants with this disease must be turned back from our ports, whether the aliens be first or second class passengers or steerage.

"More recently the Board of Health of Liberty, Sullivan County, has enacted an ordinance providing that no building situated within the limits of the village shall be used as a sanitarium for the reception of patients afflicted with consumption. A first violation of the offense is punishable by a fine of $50, and for a subsequent violation there is to be a penalty in the discretion of the board, not to exceed $100.

"This means that Liberty, which was rapidly becoming famous as a resort for consumptives, will not be allowed to receive them any more. Hotels for their reception, costing thousands of dollars, have been built, and in winter they used to flock there in great numbers. Every hotel in Liberty, except one, catered to their patronage."

The editor had his doubts about the wisdom of segregation of consumptives in public sanatoria. Experience has shown that the fears expressed in the following quotation were not justified.

"There is a tendency among all sorts of people to look to the powers that be for help in the emergencies they cannot meet themselves, but as a rule it is only justified in extreme cases. The communal care of the sick, the insane and the criminal has always been and probably always will be far from perfect. The power that takes the helpless and infirm away from the natural protection of relatives will always at times be abused.

"We should hesitate long before turning the consumptive over to the same tender care. The powers which can see revenue in sources as far apart as the prostitute and the milkman are not likely to be oblivious to the revenue of the sick who want to stay at home."

MEDICAL PROGRESS

The Cancer Problem.—In an article in the *Lancet* of November 13, 1926, ccxi, 5385, W. E. Gye describes further experiments with the Rous tumor. He recalls that in a former article it was shown that the filterability of the Rous tumor extract is not certain; all that can be said is that generally a filtrate of a tumor is active, but often it is quite inert. Gye has confirmed the work of Rous and Murphy, who found that tumor extracts are always robbed of their activity by exposure to a temperature of 55°C. for 15 minutes. His experimental work indicates that the agent which is destroyed by heat is variable in quantity (or quality) in filtrates from different tumors. Another group of experiments demonstrates the fact that chloroform and acriflavine inactivate the Rous tumor extract, and that the element destroyed by heat is not the same as that destroyed by acriflavine. Furthermore, the two inactive fluids, when mixed together, acquire the power of inducing tumor formation. From the experimental evidence Gye feels satisfied that the production of a tumor with cell-free filtrate depends upon the conjoint action of two elements in the filtrate, one rendered inactive by acriflavine or other antiseptic, and the other inactivated by heat. It is only because of the activity of the latter element that the presence of a virus can be shown in the Rous sarcoma. The agent which is destroyed by antiseptics (the virus) is unable alone to induce sarcoma formation; it is, he says, a living filterable microbe and, in Gye's opinion, is the cause of new growths. The evidence that the agent is a microbe lies in the fact that it can be killed by antiseptics and can be cultivated. It is further shown that there is an agent contained in tumors of diverse origin and diverse structure which has the supremely important property of reactivating an extract of Rous sarcoma which has been inactivated by means of an antiseptic. Gye claims that these new facts are compatible with the known facts of cancer structure and behavior.

The Clinical Effects of Lead in the Treatment of Malignant Disease.—L. Cunningham, writing in the *British Medical Journal*, November 20, 1926, 3437, stresses the difficulties and dangers attendant upon the lead treatment of malignant disease. The obvious contraindications are gross pathological lesions of one or more organs of the body, serious cachexia, and the idiosyncrasy of the individual to lead. Before administering lead the important organs of the body should be carefully examined and a complete analysis of the blood and urine should be made, with radiological studies where these are likely to be of assistance. Full blood counts should be made, with blood film examination for stippling of the red cells. This has proved of great value in indicating both the dose of lead that should be administered at any given time and the interval which should be allowed before a further dose is given. When there is reason to suspect liver involvement, a levulose test is made. The author outlines the various toxic effects of lead upon the blood-forming organs, the gastroenteric tract, the kidneys, the liver, and the central nervous system. All types of anemia are encountered, from grave secondary anemia to aplastic pernicious anemia. In the usual type the reduction in hemoglobin is more marked than the reduction in red blood corpuscles. Other changes noted have been polychromasia, anisocytosis, poicilocytosis, and the appearance of abnormal forms. In several of the author's cases the blood destruction has been so severe as to call for transfusion. Recovery from the anemia following large doses of lead is rapid, while after the administration of small doses continued over a long period it may be very protracted. The variations of the white blood corpuscles are not as characteristic as those of the red blood cells; leucocytosis, relative lymphocytosis, slight eosinophilia, and leucopenia have been observed. The kidneys are often involved early. Albuminuria has been recorded in 25 per cent of the cases. Lead influences the bile-producing mechanism just like phosphorus, arseniureted hydrogen, and toluylenediamine. Nearly all the serious toxic effects of lead may be avoided. During the treatment the kidneys should be relieved by a light diet, a liberal fluid intake, and restriction of protein. If vomiting is associated with ketosis, glucose and insulin should be given. The intravenous injection of a solution of calcium chloride (5 per cent) appears to be beneficial by rendering the lead salts insoluble. The dosage of lead, provided there are no untoward effects, is two doses of 20 c. c. and two of 15 c. c. of the 0.5 per cent preparation, at ten-day intervals. The patient is then allowed one month's rest, when the treatment is resumed, using smaller doses (10 c. c.) at varying intervals, until 120 c. c. of the solution, or 0.6 gram of lead, has been given. Where a tumor is of slow growth, even smaller doses may be given, thus avoiding acute toxic effects. Cunningham, at the end of the first five year period, reports that of 247 cancer patients seen, of which 227 received treatment, 50 were benefited, and are either leading normal lives (9), or the disease is arrested (10), or it is believed to be cured (31). Surgery and the *x*-rays have been combined in the treatment of these patients. There is reason to hope that a better preparation of lead will be found in the near future.

Combination of the Specific and Malarial Treatments of Syphilis.—Professor G. Scherber discusses this subject at length and from several quite distinct angles. By specific treatment he refers to the use of the spirillicides and especially of arsphenamine and bismuth. Malarial virus itself has of course been claimed as a specific remedy, but is better regarded as the most successful of the pyretogenic substances and one which in theory should be able to antagonize any microorganism which has a low heat stability. In the early tests of malarial virus it has been necessary to apply it alone, using the spirillicides either before or after, or both before and after. The genesis of fever can have other than salutary effects, and the author recalls a case in which a typhoid bacillus harborer suffered an acute reappearance of the disease in connection with an outbreak of variola which mobilized an old focus of bacilli in the gall-bladder, spleen, or elsewhere. Hence the thought of combining the administration of a spirillicide with the malarial inoculation. Scherber does not seem to stress the presence of metasyphilis in connection with this idea, the chief aim being apparently to render the blood and cerebrospinal fluid negative to tests The malarial treatment may produce this result but we do not yet know whether it will prove to be permanent. In tests of the malarial treatment of fresh syphilis, the author was unable to obtain even a negative blood Wassermann, but after the patients, three in number, had received the usual spirillicide treatment they responded to the same with unusual promptness and thoroughness. The author concludes that the malarial virus acts on latent foci of syphilis in a quasi-specific manner as a synergist to the general sterilization accomplished by the arsphenamine and bismuth. The combined treatment is therefore indicated whenever there are old foci of the disease anywhere in the body.—*Wiener klinische Wochenschrift,* November 11, 1926.

Immunity of Paretics to Frambœsia.—F. Jahnel and J. Lange have already called attention to the apparent immunity of metasyphilitic patients to frambœsia inoculations, which were not made in the interest of scientific curiosity but in the hope of stimulating the formation of immune bodies. The frambœsia virus had been obtained from Major Nichols of the United States and had been passed through the rabbit before inoculation. Since this episode the authors have obtained other virus through the courtesy of Drs. Louise Pearce and Howard Fox of New York, and have repeated their original experiments with the same negative result. The material of the second series comprised 8 paretics and 1 tabetic. A patient with ordinary lues cerebri developed doubtful papules at the inoculation site which soon vanished; biopsy showed the absence of spirochetes. These negative experiments must be grouped with some of the results of others in crossed immunity to syphilis and frambœsia in rabbits. It would be natural to claim in hostile criticism that passage of the virus through the rabbit causes it to lose its specific character, but unfortunately for such a view the authors have control material in non-syphilitics who reacted positively to frambœsia inoculation. Details are not submitted in full, but the authors have tested therapeutic inoculation on a patient with multiple sclerosis, but are not yet prepared to report on the subject. The authors will continue their efforts on metasyphilitic patients and are hoping to obtain frombœsia virus from the East Indies before coming to a final conclusion. In the meantime the question of the identity or close relationship of syphilis and frambœsia is still far from settled, although at one time the evidence of dualism seemed almost complete.—*Klinische Wochenschrift,* November 5, 1926.

Treatment of Cararrhal Jaundice with Insulin.—H. Schneider refers in the *Wiener klinische Wochenschrift,* October 28, 1926, to the discovery by Richter that insulin and glucose given jointly appear to hold back the fatal termination in icterus gravis, and this naturally suggested the possibility of the value of this treatment in the milder forms of jaundice, especially catarrhal jaundice which has become chronic. The affection should normally pass off in from 3 to 6 weeks and it occurred to the author to determine whether this period could be shortened. He has had opportunity of treating a number of these acute cases, giving 5 units two to three times daily, and has been surprised to note how rapidly the jaundice clears up. Its average duration in more than a dozen cases has been three weeks. In addition to insulin the patients were on a strict carbohydrate diet and received enemas of glucose solution and at times glucose intravenously. In order to understand these results we must bear in mind that, since the dictum of Eppinger, catarrhal jaundice has been recognized as a mild form of hepatitis which sometimes becomes chronic and may pass into acute yellow atrophy. This does not mean that there is not a simple obstructive jaundice of a transitory character, but that under the present conditions any jaundice must be thought of as a possible hepatitis. At any rate protein should never be given to these patients on account of the possible formation of toxic end-products and in general of interference with the glycogenic function of the liver. Glucose exerts a detoxicating action and the galactose and levulose used in testing hepatic sufficiency also are of use therapeutically, favoring glycogen storage. An added reason for withholding any excess of protein in the diet is found in the fact that the pancreatic external secretion is often defective in hepatic cases.

Expulsion of Renal Calculi by Means of Hypophysis Extract.—H. Feilchenfeld contributes to the *Deutsche medizinische Wochenschrift,* of October 29, 1926, a very brief note on this subject which is practically a short case report. It has quite recently been announced by Kalk and Schondübe that extract of the posterior lobe of the hypophysis can cause forcible contractions of the ureter, the authors suggesting its trial in renal colic. They also have reported three cases of the successful use of the extract. The present author implies that his own case may have a claim to priority although it was not placed on record at the time, possibly because the result was not entirely satisfactory. The patient was a woman who had been under treatment for renal lithiasis before, but who presented herself last February with increasing cystopyelitis and a history of repeated acute crises of pain. Stone shadows had already been recognized when the patient was previously under treatment. The pyelitis was first treated and an injection of pituitary extract was followed by severe renal colic without expulsion of the stone. A second ampoule injected brought about a second crisis of pain, again without passage. The rest treatment was now substituted and a control radiogram showed a stone adherent in the pelvis. Since then there has been no active treatment and no more colic. The author demonstrated that hypophysis extract provokes specific contractions of the ureter and suggests that a movable stone in that canal would probably have been expelled.

Non-Tropical Sprue.—T. E. S. Thaysen of Copenhagen discusses tropical sprue as seen in patients home from the tropics, which is recognized as one of the most dreaded diseases of these regions, with its extreme emaciation, weakness, anemia, diarrhea, and stomatitis. Recently great surprise has been occasioned by the appearance of a few sporadic cases in residents of Northern Europe and America who have never left home. The author saw one such case in Copenhagen in 1922 and found that his was really the fifth that had appeared in that city, all in native Danes who had never traveled. These cases may masquerade as fatty diarrhea, which apparently may be the sole symptom. In other cases the coexistence of stomatitis with anemia has probably suggested the diagnosis of pernicious anemia. The sprue described by Thin in 1897 under the name psilosis has been identified by some as pernicious anemia. In 6 of the 8 cases in which blood examinations have been made in non-tropical sprue, reported by different observers, the blood counts have been those of Biermer's anemia. It is becoming increasingly probable that the latter affection is only a syndrome, a collection of quite different diseases, which bring about anemia. So that if this is true it will not help us any to say that this form of sprue is only pernicious anemia. In the author's material there was no severe clinical anemia. The diarrhea often appears to be of the pancreatogenic type, but this occurs under various circumstances—for example in diabetes—a condition which may have to be excluded in the differential diagnosis. Absolutely nothing is known of the etiology of non-tropical sprue. No treatment is of any benefit save expectant and symptomatic remedies; the disease is more obstinate than tropical sprue which is amenable to treatment with removal from the tropics.—*Klinische Wochenschrift,* November 12, 1926.

Prevention of Coryza. — Andrew S. J. McNeil, writing in the *British Medical Journal* of November 6, 1926, 3435, states that for the last fourteen years he has advocated the use of soap as an almost certain preventive of "colds," if used regularly; it is also the most valuable part of the treatment of an established "cold." As a preventive, the patient is instructed to get a rather thicker soap lather than usual on his hands, and to smear it over the face in the usual way, rubbing it over the nostrils half a dozen times or so, without attempting to push it into the nostrils or to sniff it; then several handfuls of warm water are thrown against the openings of the nostrils, again without sniffing. Then the nose is blown, one side at a time, when it will be found that quite a quantity of mucus, inspissated and fresh, mixed with dust and débris, comes away. When a person already has become infected, the above method, along with a few tablets of acetyl-salicylic acid taken at intervals after food, will soon clear up the generalities of a cold in a normal nose. If there is a sore throat a few formalin tablets will be a great help. The soap method does away with the certainty of microbes being carried into the upper regions and saves the delicate nasal mucosa from the insult of coming in contact with "foreign" antiseptics, in douches, sprays, and sniffing from the hand. The soap lather stimulates the ciliated and globular nasal epithelium, and causes a flow of mucus from above downward. The soap should be a good toilet soap, not one containing free alkali. This very simple measure should be taught to children and should become a routine in the prevention of colds, which in the aggregate inflict an immense loss on the country. The writer does not use anti-cold vaccines, as he thinks the toxin of *M. catarrhalis* is apt to weaken the myocardium.

Ischemic Contracture.—Paul W. Jepson (*Annals of Surgery*, December, 1926, lxxxiv, 6) describes certain experiments in dogs which reproduced the mechanism of this condition as seen in man. After the application of an Esmarch bandage to the right pelvic limb for 1 1-2 to 4 hours the deformity manifested itself by a *main-en-griffe* which disappeared in the course of three or four hours. When the ligature remained for a longer period, the deformity persisted for three or four days. Ligature of the femoral vein over the right thigh also produced the deformity. A combination of the two procedures produced typical ischemic contracture similar to that in man. The contracture may be explained by a number of factors, most important of which are impairment of the venous flow, extravasation of blood and serum with swelling of the tissues and consequent pressure on the blood vessels and nerves in the involved area. As the condition progresses, due to the diminished blood supply, the flexor muscles begin to atrophy and the tendons become matted together. If the intrinsic pressure is relieved by early drainage of the hematoma, the patient will usually recover.

The Treatment of Infection of the Nasal Accessory Sinuses.—G. Seccombe Hett, writing in the *Lancet,* November 6, 1926, ccxi, 5384, says that in patients giving a history of severe head cold, it is almost axiomatic that unilateral pain in the face, temple, or brow indicates extension of the inflammation of the nasal cavities into one or other of the nasal accessory sinuses. Drainage of the affected sinus should be obtained by medical means, if possible. The patient should be put to bed, the bowels should be kept well open, and if there is pyrexia the ordinary medicinal treatment for this symptom should be given. Every four hours a steam inhalation should be given. As a basis, Friar's balsam is a useful inhalant, 1 dram to a pint of boiling water. In antral infection the patient should lie with the head over the side of the bed on the opposite side to the sinusitis, and then sit up, close one nostril and gently blow the secretion from the other. Between the steam inhalations the patient should use in a nebulizer the following or a similar prescription: Menthol 15 grains, cocaine 4 grains, glycerin 3 drams, tincture of benzoin (simplex) 1 ounce. If there is obstruction of the ostium maxillare or infundibulum, relief is often obtained by placing a pledget of cotton, soaked in 10 per cent. cocaine and squeezed until only damp, between the middle turbinal and the septum. After the pledget is removed a second one is placed under the middle turbinal thus opening the outlets from the antrum, frontal sinus, and ethmoid cells. If the antrum does not drain despite these methods, puncture through the inferior meatus may be made to facilitate lavage with an antiseptic alkaline lotion, such as glycothymol, B.P.C., to which has been added one dram of tincture of iodine to a pint of lotion. Radiant heat baths for the head, as well as sunlight, have given good results. In acute antritis it may be necessary to open the antrum for drainage, but radical operation should not be performed at this time. In chronic antritis the radical operation should be performed during a quiescent period.

Treatment of Perineal Pruritus.—Dr. P. Gallois employs this term to include both genital and anal pruritus because of the tendency of the two to coexist in the same subject. Sometimes there is difficulty in deciding which of the regions is primarily involved. Moreover, even when quite distinct, the two local forms appear to have a common origin and yield to the same treatment. If the origin is not the same it may be similar. Either form may be due to some constitutional state, such as nephritis or diabetes, while some source of irritation in the vagina and rectum respectively may set up pruritus of the vulva or anus. Eczema may appear primarily and be attended with symptomatic pruritus, and conversely a scratch eczema may develop on a primary pruritus, and we may see a vicious circle in operation, so that it may be very difficult to decide as to the nature of the original mischief. The author mentions a special form due to douching of the vagina or rectum. The irritant may not be the water but rather some of the substances in solution, chiefly alkalies, including soap. The itching ceases with the abandonment of the practice of douching. Treatment must consist largely in recognition and removal of the cause. Under symptomatic treatment the author mentions many substances in use but gives the preference to ointments and oily preparations, having learned to distrust lotions. For a menstruum he likes olive oil or equal parts of this and glycerin and his antipruritic drugs comprise menthol, chloroform, and sublimate in weak concentration.—*Journal de Médecine de Paris,* November 1, 1926.

LEGAL

By LLOYD PAUL STRYKER, Esq.
Counsel, Medical Society of the State of New York

LET US FACE THE NEW YEAR WITH UNITY AND WITH CONCORD

In our editorial printed in the State JOURNAL for January first, your counsel took occasion to analyze and to discuss the recent decision of the Supreme Court of the United States, in the case of Lambert against Yellowley, in which, as will be recalled, our highest tribunal by a vote of five to four, decided that Congress has the right to limit the amount of vinous or spirituous liquors which a physician may prescribe for his patient.

Your counsel called attention to the fact that one of the principal reasons which actuated the Supreme Court in reaching its decision was that Congress had a right to decide this question because there was a difference of opinion among the members of the medical profession as to the therapeutic value of vinous and spirituous liquors. With great emphasis the Supreme Court referred to the fact that high medical authority was "in conflict on this question."

Your counsel, of course, appreciates that on so delicate and troublesome a question as the proper medicine to be given a patient and the therapeutic value of this or that remedy it would be difficult entirely to avoid conflict, nevertheless he would like to take this occasion to stress the fact that owing to this conflict a decision was rendered which materially limits and restricts the judgment of a physician as to the proper remedy to be prescribed by him for his patient.

In his travels throughout the state appearing constantly in court in the various judicial districts, the writer is afforded perhaps as good an opportunity as any one for observing the problems, the difficulties and the dangers that constantly confront and assail the members of the medical profession.

From its very nature and because of the fact that the laity at large is neither interested in nor educated upon questions of science there always has been, there is and doubtless there will continue to be a misunderstanding of the medical profession, its aims and purposes. This misunderstanding is reflected in the courts and in legislative halls; it is a misunderstanding of which charlatans increasingly attempt to take advantage. On the one hand, the medical profession is constantly defending itself in court against attack on the part of individual patients who are unable or unwilling to understand that no doctor is a guarantor of his work and that despite all efforts, because of the very nature of the human system, bad results now and then are bound to occur. On the other hand, the medical profession must ever be vigilant and on the alert lest state legislatures and the national Congress tie its hands and curtail the means which through scientific study and experience it has concluded are the most proper for its combat against disease and death.

It, therefore, behooves the medical profession to stand together against the forces of ignorance and charlatism for the protection of the art which it employs to the best of its ability for the benefit of mankind. Everything possible toward the achieving of a better understanding and a greater concord and unanimity among the ranks of the profession should be sought for and attempted. To its assailants from without the medical profession, if it is to preserve its liberty of decision, must present a vigorous and a united front. No friend of the profession would suggest that individual doctors or groups of doctors are not entitled to their opinions or should be precluded from espousing programs in which they believe; on the other hand, where doctors fail to agree, they must not be surprised when these disagreements are used against them by those who either do not understand or do not sympathize with their aims.

No finer statement, no clearer exposition of the need for concord in the medical profession was ever uttered than that found in the first article of the Constitution of the Medical Society of the State of New York, which reads:

"The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of New York; to extend medical knowledge and advance medical science; to elevate the standard of medical education; to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members, and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of medicine."

FOREIGN BODY IN THE EYE—SUBSEQUENT BLINDNESS—ENEUCLEATION

In this action the plaintiff claimed that on the 2nd of August, while engaged in his work as a mechanic and hammering upon the mudguard of an automobile, he was struck in the left eye by a substance which flew from the hammer he was using or from the mudguard he was repairing; that he did not know the nature of the substance but had subsequently been informed that the same was metal; that after sustaining the injury he employed the defendant physician to render him the necessary care and attention in the treatment of his injury, but that the defendant was careless and negligent in his undertaking and failed to use the proper care and skill, so that the plaintiff's injury became more painful, rendering it necessary for him to employ the services of other physicians; that further, by reason of the defendant's alleged negligence, the sense of sight of the injured eye of the plaintiff had become dim and he became gradually blind and that after receiving further treatment, on the 9th of November the plaintiff's injured eye was extracted in order to save him from total blindness; that for these injuries, which he claimed were due to the physician's improper treatment, the plaintiff asked fifty thousand dollars' damages.

The patient was first seen by the defendant on the day he sustained the injury giving a history of having a foreign body in the eye. After examination of the eye the physician cocainized the eyeball and with the use of a small eye scalpel extracted a foreign body from the patient's eye. The foreign body appeared to the physician to be a piece of dirt. After removing the foreign body an application of boric acid solution was applied to the eye and the patient was given a prescription for a boric acid solution containing camphor and prepared in distilled water and was likewise given a prescription for a ten per cent solution of argyrol for use in his eye. The defendant found a slight condition of ophthalmitis, which was due to the irritation caused by the foreign body. The patient returned two days later and upon examination the condition of the eye seemed to be improving and the patient was instructed to continue the treatment previously prescribed. Some slight inflammation of the conjunctiva was still present. The patient did not return to the physician again until August 10th, at which time the eye was considerably inflamed, but an examination did not reveal any inflammation of the deeper structures.

Because of the persistence of the conjunctivitis the physician felt that the patient might be setting up a condition of iritis or cyclitis and then gave him a prescription for a one per cent atropine, with instructions to put two drops in the eye every four hours. At this time the patient complained of the eye being very painful. He was also given a one per cent solution of dionine for the relief of the pain in the eye. August 13th was the next visit made by the patient, at which time, upon examination, it was found that the inflammation had not advanced. The same treatment was continued and the patient advised to return in a few days. He returned on August 17th, at which time it was found that the deeper structures of the eye had become involved.

Under an examination made with an ophthalmoscope, the physician found no interference with the vision except as occasioned by the dilatation of the iris. The conjunctivitis was still present, the iris had lost its brightness and was becoming lusterless, giving evidence of involvement. The lens, aqueous and vitreous of the eye were involved at this time.

The defendant physician concluded that the condition was one for an eye specialist and referred the patient to such a physician. This was the last time that the patient was seen by this defendant.

The patient continued under the care of the eye specialist to whom this defendant had referred him for a period of about six weeks. He then passed into the care of another physician, who saw him on October 25th. To this physician the plaintiff had given a history of the case, stating that he had received treatment from two other physicians. The third physician who saw the patient found upon examination that the eye was very soft and had all the appearances of deterioration and made a diagnosis of irido-cyclitis. He advised the taking of a X-ray and arranged for the patient to enter an eye hospital. The X-ray taken at the hospital revealed an irregular piece of metal embedded in the eye. The patient was advised that the condition of the eye did not permit any attempt to remove the piece of metal; that the eye would have to be removed. On November 9th the eye was eneucleated. The post-operative reaction was moderate, with no apparent sloughing of the fatty tissues; the secretion was scanty and apparently healthy. The patient left the hospital on November 15th.

After the eneucleation of the eye this action was instituted against the defendant physician and against the second physician, both of them being joined as parties defendant in the same complaint. By a motion the plaintiff was compelled to serve separate amended complaints against each of the defendants upon the theory that they were independent contractors and that they were liable, if at all, for their own independent negligence and that they were not joint tort feasors. Thereafter the suits continued against both of the defendants individually.

The actions remained upon the calendar for some period of time and the plaintiff made no effort to bring the same on for trial. By reason of his failure to prosecute the actions, a motion was made on behalf of the defendants to dismiss the actions for lack of prosecution. This motion was granted, thus ending this litigation in favor of the defendant physicians.

INGUINAL HERNIA—SUBSEQUENT FEMORAL HERNIA

IN this action it was sought to recover damages for the alleged negligent and careless operation upon the plaintiff for a hernia. The complaint charged that prior to January 15th the plaintiff suffered from a hernia and had applied to a hospital for treatment and was referred to the defendant, a surgeon; that the surgeon was employed to attend and treat the plaintiff and to operate for the hernia; that the operation and treatment of the plaintiff by the defendant was negligently and carelessly performed; that the plaintiff was improperly operated upon and improperly allowed to leave the hospital after the post-operative treatment, with the result that the abdominal walls of the plaintiff were again broken down and that he still had a hernia and his testicles were permanently injured, causing him great pain and inconvenience; that it was necessary for him to be again operated upon and that by reason of the injury sustained he was compelled to expend moneys in an endeavor to be cured of his condition and was prevented from attending his usual occupation and had lost the income of his wages.

The plaintiff was seen by the defendant surgeon in the middle of December, at which time he requested the defendant to examine him for a right-sided rupture preparatory to his entering the hospital for an operation for this condition. In making the examination the surgeon held his hand over the patient's right inguinal canal and had him cough. Upon doing so the surgeon felt the protrusion of the bowel in the inguinal canal. This protrusion likewise could be plainly seen. The surgeon could also, on the examination, observe the region of the femoral canal and he is positive that there was no protrusion in this region. He passed his finger through the scrotum and through the external abdominal ring and felt the hernial protrusion above his finger in the inguinal canal. Arrangements were made for his entry into the hospital and the performance of the operation in the middle of the following January.

On January 14th, at the hospital, the patient was prepared for an operation, which was performed by the defendant surgeon. At the time of the operation there was found a small, clear-cut, decisive and direct inguinal hernial sac, which was operated upon in accordance with the proper and approved methods. The wound healed by primary union. Subsequent to the operation the right testicle became slightly swollen, which was given the necessary and proper treatment. This swelling had practically subsided at the time the patient left the hospital. The patient was out of bed on the thirteenth day after the operation and left the hospital on the following day. After leaving the hospital the patient never returned to the defendant physician. He did, about two weeks after leaving the hospital, return there, at which time he spoke with an interne and stated that he had a recurrence of the hernia and was going to another surgeon to be operated upon.

In the latter part of February of the same year the plaintiff entered another hospital, and upon examination there it was found that he had a femoral hernia. On February 28th an operation was performed for the reduction of the femoral hernia. The plaintiff remained in bed for ten days after this operation and was seen several times by the surgeon who operated. On March 12th the surgeon again examined the patient and found that the incision he had made for the reduction of the femoral hernia had healed and the patient was then released from the hospital. At this time the patient told him that he had been previously operated upon at another hospital for a hernia. This surgeon saw a scar at a point where an inguinal hernia might have been, but the same had healed over very nicely and there was no sign of a recurrence of the inguinal hernia. The two ruptures which the plaintiff had were about one and one-half inches apart and one did not run into the other. They were separate ruptures, one being over the inguinal canal and the other over the femoral canal. A week after the patient had left the hospital he returned to the second surgeon and upon an examination the wounds were found to be entirely healed.

This action remained upon the calendar for some period of time and the plaintiff failing to presecute the same a motion was successfully made to dismiss the complaint for lack of prosecution upon the plaintiff's part.

NEWS NOTES

THE SECOND DISTRICT BRANCH

The year's series of meetings of district branches was completed on Friday evening, January 7, when the Second District Branch convened in the auditorium of the Kings County Medical Society in Brooklyn. The president, Dr. Joseph S. Thomas, presided, and sixty members were present.

The Second District Branch is unique in that its area comprises an island whose waters make a sharp separation of its four counties from the rest of the State. Its four county societies consist of Kings County, whose medical society combines the functions of a county society and an academy of medicine, and a large library; that of Queens County, whose physicians have to contend with the mushroom growth of a great borough; that of Nassau County which is a suburban section, and that of Suffolk which is still rural. The leaders of the Kings County Society have always been generous in their recognition of the physicians of the other counties, and in assisting them in their activities, especially in post-graduate work. The unity among the county societies is further promoted by the publication of a monthly journal—the *Long Island Medical Journal*—now in its twenty-first year.

Dr. George M. Fisher, President of the Medical Society of the State of New York, in his official address, spoke of the vital problems now before the State Society, and of the responsibility of every county society to help in their solution. He commended the annual message of Governor Alfred E. Smith, especially those paragraphs relating to the establishment of county health officers and the practice of medicine act. (see page 89). He warned the County Legislative Committees to continue their activities, and to keep in touch with their legislators, and so be prepared to combat any bills that may be introduced. The State Medical Society has no major bills to promote this year.

Dr. Fisher also dwelt on the functions of the District Branches, and urged the members to consider topics and activities of a civic nature. The meetings of the State Society and the post graduate courses of the county societies are supplying the scientific instruction to the members. The function of the District Branches is to encourage the county societies in their own peculiar activities as distinguished from the work of individual members.

Dr. D. S. Dougherty, Secretary of the State Society, spoke on the individual responsibility of the members of county societies.

Representatives of the four county medical societies of the Second District Branch told of the work of their societies. Dr. W. H. Ross described the activities of the Suffolk County Medical Society, of which the outstanding feature was the assumption of leadership in all the activities in which lay organizations are interested

His address is published in full on page 66.

Dr. Louis I. Neff, lay secretary of the Nassau County Medical Society, described the work of the society which he represents. The Nassau County Society has a membership of about 140, and employs Mr. Neff as its Secretary and Treasurer. The result is that records are well kept, dues are collected, members are notified of activities, and correspondence is kept up to date. The annual local dues of the Society are ten dollars, and Kings County is the only one whose dues are larger. The size of the dues does not keep doctors from joining, but on the other hand the activities which the dues make possible encourage physicians to seek admission.

The Society meets on the fourth Tuesday evening of each month, and begins each meeting with a dinner, followed by the business and scientific session. The average attendance is around thirty.

The plans for the coming year call for two speakers at each scientific session, one to be a member of the local society and one to be invited from outside.

The outstanding activity of the Nassau County Medical Society is its weekly post-graduate clinical lecture given every Thursday afternoon at 3.30 o'clock in the Nassau Hospital, Mineola. These lectures will be continued during the winter and spring. They are attended by an average of thirty doctors.

Mr. Neff also described the A. M. A. insignia used by members on their automobiles. He said that the police all over the county respect the insignia since they know that each one is registered with the County Medical Society, and the Society guarantees the honesty and reliability of the driver.

Mr. Neff closed with a description of the studies now being made by the Society regarding the need for more hospitals and dispensaries.

Dr. Edward A. Fleming, of Richmond Hill, described the activities of the Queens County Medical Society. His address is published in full on page 68.

Dr. Alec N. Thomson, Secretary of the Public Health Committee of the Kings County Medical Society and Editor of the *Long Island Medical Journal,* exhibited stereopticon transparencies prepared for lay audiences, showing the activities of the Kings County Medical Society. The Kings County Society has always worked with the lay health organizations of Brooklyn, and directed them in their medical activities, and in return the lay organizations and political workers have welcomed the advice of the doctors.

Three brief papers by Brooklyn members were presented during the scientific session.

Dr. John E. Jennings gave a paper on epiploitis, and illustrated his talk with lantern slides of the omentum in various stages of thickening and contraction.

Dr. Walter D. Ludlum described his present practice in dealing with diphtheria and scarlet fever from both the curative and the preventive points of view.

Dr. Tasker Howard read a paper on "Sidelights on the Art of Physical Diagnosis in which he reviewed briefly some points which he had found useful in making physical examinations. He said, for example, that a mild jaundice might not be noticed if the skin were examined by yellow artificial light, and he described methods of judging the size of the heart by means of the location and extent of the apex beat, and of examining the liver by placing the hand above the liver with the fingers pointing down instead of up. The points which he brought out were simple and almost self-evident, but the doctor who has them conscientiously in mind can make a superior physical examination.

The following officers were elected for two years beginning at the close of the Annual Meeting of the State Medical Society: President, Dr. Guy H. Turrell, Smithtown Branch; First Vice-President, Dr. Charles A. Gordon, Brooklyn; Second Vice-President, Dr. Louis G. Van Kleeck, Manhasset; Secretary-Treasurer, Dr. F. H. Richardson, Brooklyn.

COMMITTEE ON PUBLIC RELATIONS

The friendly relations between the medical profession of New York State and the lay organizations engaged in public health work will be greatly promoted by the action of the Council of the Medical Society of the State of New York in appointing a committee to confer with a similar committee of the State Charities Aid Association. The action of the Council was in response to the following communication from Mr. Homer Folks:

> November 26, 1926.
>
> Dr. George M. Fisher, President:
>
> "Dear Dr. Fisher:
>
> "I am instructed by the Executive Committee of the State Committee on Tuberculosis and Public Health to lay before you the question as to whether it might not be useful if the State Medical Society would designate a committee to sit with a similar committee from the State Committee on Tuberculosis and Public Health for the purpose of considering problems arising on the common ground between medical practice and public health, with a view to bringing about better understanding, and so far as practicable, harmonious action in the common interest of all concerned. I am instructed to say further that this Executive Committee is of the opinion that such a step would be desirable, and has authorized its chairman to appoint representatives to participate in such conferences should the State Medical Society consider it advisable to follow a similar course.
>
> "Among the considerations which have led to the above suggestion are these:
>
> "1. New questions are coming forward from time to time in various localities in the state in which both the official and unofficial health agencies and also the medical profession are deeply concerned. From time to time, presumed differences of opinion arise which result in criticisms, misunderstandings, and waste of effort.
>
> "2. It has often happened that when an informal group of physicians and health workers have undertaken to consider seriously and in detail a matter which has been the subject of criticism, it has been found that such criticism has been due to misunderstanding on one, or on both sides, of the plans, purposes and objectives of the other.
>
> "3. It has also been found in such informal conferences that difficulties and criticisms have arisen because neither party concerned had given really close, serious, and analytical consideration to the actual questions involved. For many of these questions there are no former precedents and they require, therefore, detailed consideration and hard thinking. It has been easier for both sides to slip into the position of criticising the other, than of offering seriously considered constructive proposals.
>
> "These are some of the reasons which have led us to feel that conferences of the nature above indicated might be very fruitful at this time in the development of medical

practice and of public health activities in this state.

"May I add, in passing, that it has been of very great value, indeed, to the State Committee on Tuberculosis and Public Health to have the former and the present President of the State Medical Society in its active membership."

I am, sincerely yours,

HOMER FOLKS,
Secretary.

The council took favorable action on this invitation at its meeting on December 9, and voted to appoint a special committee of five, to be known as the Committee on Public Relations, "To meet representatives of the State Committee on Tuberculosis and Public Health for the purpose of discussing their several fields of activity in public health, with the object of determining how our two organizations can best supplement each other so as to secure the highest efficiency with the least overlapping of activities in our mutual effort to serve the public."

The committee appointed consists of Dr. G. W. Cottis, Jamestown, Chairman; Drs. Wilbur T. Fish, Ithaca, T. P. Farmer, Syracuse, W. W. Britt, Tonawanda, Terry M. Townsend, 498 West End Avenue, New York City, and the Executive Officer of the State Society, Jos. S. Lawrence, Albany.

CATTARAUGUS COUNTY

At a meeting of the Cattaraugus County Medical Society held on December 16, 1926, the Committee on Public Health made the following report, which was adopted:

To the members of the Medical Society of the County of Cattaraugus:

Your Committee on Public Health, at the last regular meeting of the Medical Society of the County of Cattaraugus, was requested to consider the matter of the relation of the Society to the public health work carried on in Cattaraugus County by the County Board of Health and the County School Hygiene District.

We herewith submit our report.

At the annual meeting of the National Tuberculosis Association in 1922 an announcement was made that the Milbank Memorial Fund would undertake a program of three health demonstrations in New York State. One of these was to be in a rural county, one in a medium-sized city, and one in a district metropolitan in character.

The Board of Trustees of the Milbank Memorial Fund, on the advice of a Technical Board which it had appointed, designated the State Committee on Tuberculosis of the State Charities Aid Association as the chief operating agency for the rural and medium-sized city demonstrations.

The Board of Trustees of the Milbank Memorial Fund consists of a number of distinguished laymen and a physician. The secretary of this Board of Trustees is Mr. John A. Kingsbury.

The Technical Board consists of the following members: Bailey B. Burrett, John A. Kingsbury, Homer Folks, Livingston Farrand, M.D., James A. Miller, M.D., Mathias Nicoll, M.D., Linsly R. Williams, M.D., William H. Welch, M.D.

In addition to this there is an Advisory Council of the Milbank Memorial Fund consisting of a large number of prominent lay and medical leaders in public health. The secretary of this Advisory Council is also Mr. John A. Kingsbury.

The State Committee on Tuberculosis and Public Health of the State Charities Aid Association has a large membership of prominent people, mostly laymen, and contains in its membership two members from Cattaraugus County, Miss Lilla Wheeler of Portville, and Dr. C. A. Greenleaf of Olean.

This committee is governed by an executive committee of which Mr. Homer Folks is secretary. The executive secretary of the staff of this committee is Mr. George J. Nelbach, and the assistant in Preventive Medicine is Dr. A. C. Burnham.

Late in 1922 the Medical Society of the County of Cattaraugus, the various chambers of commerce, various service clubs, and other organizations, including the Cattaraugus County Tuberculosis Association, which is the County Branch of the State Charities Aid Association, all passed resolutions inviting the State Committee and the Milbank Memorial Fund to consider Cattaraugus County for the site of their rural demonstration.

Twelve counties in the state were considered, and in November, 1922, Cattaraugus County was chosen and approved by the Technical Board and the directors of the Milbank Memorial Fund.

In January, 1923, the general health district or County Board of Health was established by the Board of Supervisors. It is recalled that members of this Society appeared at the meeting of the Board of Supervisors at which this measure was considered, prepared to speak in favor of its adoption.

Salamanca and Olean, by vote of their municipal councils, both joined the Health District. This action was necessary on their part under the law before they could be included.

In April, 1924, a conference on the program of the County Board of Health and other official and unofficial bodies in the county receiving aid from the Milbank Memorial Fund was held in Albany.

This conference was attended by the State Commissioners of Health and Education, the division chiefs of the State Department of Health, the head of the State School Medical Service, and some of the bureau chiefs of the Cattaraugus County Board of Health, and the president of the Medical Society of the County of Cattaraugus, who was at that time Dr. S. H. Bennett, of Little Valley.

The phases of the work program included tuberculosis, communicable disease, school hygiene, sanitation, infancy and child hygiene, venereal disease control, mental hygiene, and health conservation and life extension.

Dr. Bennett, as president of this Society, is stated by officials of the Milbank Memorial Fund, to have been present at the conference and to have given approval to the program as outlined and adopted. We can find no record in the minutes of this Society of a report on this conference, nor any record of a resolution empowering anyone to approve or act officially for the Society.

The object of the demonstration, as the activities of the County Board of Health County School Hygiene District, and the unofficial County Tuberculosis and Public Health Association are collectively termed, is to set up in Cattaraugus County public health practice similar to those well established in cities and some counties in the United States; further, to assist in the formative stage of this program with financial aid, and expert advice, is the function of the Milbank Memorial Fund, and the other agencies listed above.

When the organization is complete, functioning properly and receiving enthusiastic support from local sources, it is the ultimate aim of the Milbank Memorial Fund to withdraw from the county. However, advisory assistance and, if necessary, financial aid to perfect an ideal county unit is promised, we understand.

The County Board of Health consists of seven members. These are appointed by the Board of Supervisors. Two of the members must be and are physicians, and are appointed by the Board of Supervisors following the recommendation of your Society.

The members are as follows: Miss Lilla Wheeler, Mr. John Walrath (president), W. A. Dusenbury, William Bushnell, James Watson, Dr. M. E. Fisher, Dr. M. L. Hillsman.

The county health officer is appointed by the County Board of Health, with the advice and assistance of the officials of the Technical Board of the Milbank Memorial Fund, and the operating agent, the State Committee on Tuberculosis and Public Health of the State Charities Aid Association.

The present county health officer is Dr. Stephen A. Douglass, a graduate of Starling Medical College. Dr. Douglass was formerly director of the Bureau of Tuberculosis of the Cattaraugus County Board of Health, and before that the chief of the tuberculosis services of all the National Homes for Disabled Soldiers. He has always been active in public health work, and during the World War obtained large experience in organization as an officer of the American Red Cross overseas. Dr. Douglass succeeded Dr. L. D. Bristol in February, 1925, and since that time has been responsible for the organization of the present program of health activities in the county.

Consideration of Present Activities

Bureau of Public Health Nursing: There are at present 18 nurses employed by the county. Each has an allotted district and works under the supervision of a general director, who is called The Director of the Bureau of Public Health Nursing. This director is a nurse, and of large experience in public health. In addition there are 4 special supervisors whose duties have to do with special branches of public health work, namely: school nursing, tuberculosis nursing, social hygiene nursing, and maternity, infancy and child hygiene nursing. The nurses in their districts have as their duties routine public health work as follows: school inspections, child hygiene work, follow-up work in the correction of defects, tuberculosis follow-up work, the development of home care of the sick (especially the tuberculous, with a minimum of bedside nursing).

In general they cooperate with and assist all other branches and further public health by cooperation with all local agencies and voluntary nursing organizations. All phases of their work are purely of a nursing, that is, public health nursing, character. They are instructed to carefully refrain from interfering with medical practice, to assist local physicians as far as possible, and to discretely disseminate public health information.

Bureau of Laboratories and Communicable Diseases: The personnel of the Laboratory and Bureau of Communicable Diseases combined consists of a director, who is a physician, two technicians for the laboratory, and part of the services of a well trained statistician and clerk for communicable diseases. One of the technicians in the laboratory is qualified to do all the recognized laboratory tests, the other is not. The laboratory is equipped to do and is doing the usual chemical and bacteriological tests. All specimens are sent in by the profession, with the exception of a few medico-legal specimens. In but few instances are specimens accepted from nurses and then only under the direction of a physician, or with his knowledge.

The rules regarding this phase are specific and rigidly enforced. Laboratory supplies are furnished gratis to any physician promptly. Reports are given only to physicians.

The Director is available and is used for laboratory consultations.

Communicable diseases are reportable by the local health officer to the county health officer. Investigations of cases, the establishment of quarantine and its enforcement, the employment of other recognized measures for the control of infectious and contagious disease is the joint duty of the local health officer and this Bureau. Under the latter comes smallpox vaccination, and diphtheria toxin-antitoxin. These activities are and will be done by local health officers and private physicians cooperating with the County Board of Health.

Venereal Disease Control: Cases are treated in free dispensaries. There are two dispensaries, one operated by the City of Olean Department of Health, and one in Salamanca, operated by the city and county boards of health jointly. Only cases referred by their physicians or cases under compulsory treatment are accepted.

In connection with the consideration of communicable disease activities physicians are urged to promptly report all communicable diseases and aid as far as possible in the compilation of statistics.

School Medical Service: This is not really a part of the County Board of Health, but is a department of its own. The Director is a physician, and is not under the authority of the county health officer. However, as the county health officer is also Director of the Demonstration of the Milbank Memorial Fund, and as the County School Medical Service is a part of the Demonstration and receives funds therefrom, the Director of the Demonstration is indirectly interested in this service.

This service is county-wide in scope. Routine inspections are done by the nurses of the County Board of Health but these are in no sense a a physical examination. They consist merely in a preliminary survey of the children in order that beginning defects or contagious disease may be discovered as early as possible. Frequent inspections are the rule, therefore. All reports are sent to the family physician.

Routine physical examination will always be done by the local school physician appointed by the local school board. Under the law, we understand, these are to be done yearly, but it is felt that a three year examination rule is desirable, and the profession is asked to advocate such a change in the law. Physical defects and other conditions are reported to the family physician. Remedial measures are in the hands of the family physician. The school medical service cooperates with the physician at all times to bring about the desired effect in correction of physical defects and malnutrition among school children.

Bureau of Maternity, Infancy, and Child Hygiene: It is hoped by the establishment of this bureau there will occur a reduction in the death and morbidity rates of expectant mothers and of babies. This it is planned to do by (a) educational measures (b) remedial measures (c) proper instruction to pregnant women and mothers in prenatal and postnatal care, and the urging of routine examinations and the employment of laboratory facilities. In the educational measures systematic group and individual instruction, dissemination of pamphlets and literature, and nursing visits are employed. In the medical line prenatal clinics, postnatal clinics, child conferences, and well baby clinics are or will be established. It is contemplated to hold prenatal clinics by the director of this bureau with local physicians in charge and the director in an advisory capacity. The director of the bureau plans for and urges a rotary service of the local physicians in this work. All reports will be sent to the family physician and his consent and advice solicited in every case. At the child conferences and well baby clinics local physicians will be used and compensated. Advice on the care of the child and such other information as will not conflict with the private physician will be given. Minor suggestions on dietary and medicinal care are of necessity brought up at these clinics. However, the director is extremely desirous of arranging this phase of the work so that it will be acceptable to the profession.

Bureau of Tuberculosis: The efforts of this bureau are intensive case finding by holding "chest" clinics in the various centres throughout the county. These clinics are held by the director of the bureau, assisted by the resident physician at the county sanatorium. Private physicians interested in this work are asked to actively assist in examinations.

The clinics are open to the public without discrimination and will be so in the future, or at least until the case-finding campaign is completed. However, it is significant that fully 70% of the examinations were on patients referred by the private physician. All examination reports are mailed promptly to the family physician. Individual examinations outside of clinics at the request of the attending physician are done by the director. In the future the director is desirous to assist in outside consultations at all times.

No treatment nor information bearing on treatment is given patients nor will there be in the future. Advice will only be given when authorized by the physician.

A great deal of control work is necessary by this bureau and is undertaken by this bureau working in conjunction with the physicians and public health nurses. Home sanatorium treatment is an educational measure and it is the duty of the public health nurse with the aid of the attending physician to see that these measures are enforced.

Bureau of Public Health Education: This department from the physicians' viewpoint is a very important one. It is in charge of a full-time director whose duties are the education and informing of the public in health matters and health conservation by lectures, printed material, and other means. He calls upon the various specialized speakers of the State Department of Health as well as other well-known health authorities. Private physicians will recognize the value of this bureau.

Bureau of Sanitation: The proper sanitary procedures are or will be developed in this county by this bureau. At present there is one inspector whose services are available and used by the local health officers of the county.

Bureau of Statistics: This bureau is charged with the compilation of figures which will form or are forming a more valuable basis for estimating the results of this health work. Records are kept carefully. The prompt reporting of communicable diseases, and births, and the other reports by physicians will facilitate this work.

By adherence in principle to the foregoing the County Board of Health hopes to accomplish the following:

(1), A reduction in the general death rate; (2), lower the incidence of communicable disease and reduce physical defects and malnutrition among school children; (3), lower the death rate in babies and expectant mothers; (4), reduce the incidence of tuberculosis and venereal disease; (5), improve economic conditions since sickness contributes to poverty and crime; (6), increase universal periodic health examinations; (7), a general improvement in the general health of the county.

In summary the public health committee of the County Medical Society have carefully studied the contemplated activities of the County Board of Health and urge the adoption of their program. The County Health Unit is basically sound and desirable, and should be supported by the physicians of the county.

Recommendations: Your Committee on Public Health recommends that the Society go on record as favoring the present day public health movement, as favoring the county health unit as the most practical unit in public health administration, as expressing its appreciation to the Milbank Memorial Fund for enabling Cattaraugus County to test the value of the county health unit idea, as expressing its confidence in the members of the County Board of Health and as favoring cooperation with the County Board of Health of the organized medical profession of the county.

Your committee further recommends that the Society go on record, in view of the fact that the Society and its members individually are interested in public health and the prevention of disease, and in view of the fact that the cooperation of the Society and its members as individuals has been solicited in the task, as approving of the criticism in a constructive way of the actions, activities, programs and plans of the County Board of Health and the other official and unofficial public health bodies in Cattaraugus County.

L. J. Atkins, *Chairman:*
A. L. Runals,
P. H. Bourne.

THE CHIROPRACTIC HEARING

The joint committee of the Senate and Assembly appointed last spring to investigate the practice of chiropractic and to suggest what legislation is needed for its regulation, held sessions on December 22 and 23, in the Alderman's room of the City Hall, New York City. The members of the Committee are Senator John L. Karle of Queens County, Chairman; Senator Henry G. Schackno of New York County, and Assemblyman Howard N. Allen of Dutchess County, John F. Reidy of Bronx County, and Frank M. Smith of Otsego County.

The Committee was given an appropriation of $5,000 for its expenses, and was instructed to report by February first, 1927. It has employed Mr. Alexander Otis as its counsel, and the announcement was made that he was to be consulted by all who wished to be heard, and that there would be no cross examinations. The two hearings progressed in a dignified manner. The procedure was that Mr. Otis first examined the witness in order to elicit his points in a brief concise form, and then the witness was questioned by members of the committee, especially Mr. Schackno. There were no hecklings or insinuations, but the questions and answers were made calmly and fairly.

Both hearings were occupied by the chiropractors, who were given every opportunity to state their case in a scientific, logical manner. Their witnesses answered questions directly and with little or no show of feeling. They were evidently accustomed to public appearances, and realized that the force of their arguments was promoted by courtesy and self-confidence, especially confidence.

The hearings were attended by a few representative physicians, and by about fifty chiropractors. The audience was generally orderly and undemonstrative and only once was applause heard, and that was by the chiropractors over an inconsequential sally. The atmosphere of the hearing was one of truth seeking and of opportunity for the proponents of chiropractic to present their case freely.

The first witness was James N. Firth, who had been a public school teacher before he took up chiropractic. He teaches diagnosis and symptomatology in the Lincoln School of Chiropractic, at 518 North Delaware Street, Indianapolis, Indiana. He is a licensed chiropractor in Indiana, Illinois and Iowa. He had completed a one year course in the Palmer School in Davenport, Iowa, in 1909, and a three year course in 1916, and had then established the Lincoln School of Chiropractic in Indianapolis.

Mr. Otis asked Mr. Firth to state what chiropractic is. The witness said in substance: Chiropractic is a system of drugless practice, recognizing that the human body is composed of living flesh, which works when actuated by a living force originating in the brain and passing out by means of nerves. This force animates all the organs and controls heat, nutrition, secretion, excretion, and all other vital actions. It is impeded in its passage by displaced bones. The witness continued his discourse at some length until Chairman Karle suggested that he get to the point immediately and tell the principles by which the chiropractor applies his treatment. Mr. Firth took an articulated spinal column in his hand and talked about the details of the intervertebral foramina through which the nerves pass as they leave the spinal cord. The foramina, he explained, are oval, and the nerves are also oval, but their long axes lie in the short axes of the foramina and are therefore readily compressed. The nerve is hung in the upper half of the foramen as is shown by a cut in a standard textbook on neurology which the witness exhibited. The witness did not point out the foramina on the spinal column which he held, nor use it in showing how he manipulated the vertebrae in his treatments.

Mr. Firth was reminded by Chairman Karle that the committee wished to know what he did to the vertebrae which were out of place. He replied with a lengthy dissertation on the intervertebral discs, saying that they were composed of a net work of fibres in which a jellylike substance was enmeshed. When the spine is tilted, the jelly is squeezed out of one side, and the permanency of the injury depended on how compressed and dry the disc became. If only a few cells, microscopic in size, were dry, one or two treatments might restore the disc; but if the disc is dry and hard, the chiropractor may not be able to put the pulp back quickly.

The witness also described at some length how the act of bending the spine sidewise raises the superior articular process of a vertebra and produces a subluxation which reduces the size of the foramen. By a subluxation the witness said he meant a partial dislocation in distinction from a luxation, or complete dislocation.

Treatment is by means of what is called the thrust, which is applied according to the indications found after inspection and palpation of the spine, in order to find the relations of the parts which can be felt, especially the spinal and transverse processes. A record is made of the direction of the displacement and the amount.

When asked if a diagnosis of impingement on the nerves was all that a chiropractor needed, Mr. Firth replied: "No, not entirely. Progress in treatment depends on the extent of the damage. I can't tell how extensive is the damage. I should have some knowledge of structural changes so as to know if the damage is irreparable."

In reply to the question "How would a chiropractor discover an impingement of a spinal nerve," the witness answered: "By the symptoms, by tenderness of impinged spot and the palpable position of the vertebrae. The diagnosis is by the spine itself."

The witness told in some detail how he would replace a vertebra. If it was tilted forward, for example, he would press upon its spinous process to tilt it back. The movement might be only one five-hundredth of an inch at a treatment, but the vertebra could finally be replaced.

Mr. Firth denied that he had said that chiropractic would cure all diseases, but he admitted that that was the implication, although some conditions could not be reached. He used a stethoscope, but sent urines to a laboratory for examination.

Members of the investigating committee then asked Mr. Firth questions regarding chiropractic schools. He said that when he entered Palmer School, there were no educational requirements. Palmer gave instruction in anatomy, histology, physiology, orthopody, symptomatology, adjusting and the theory of chiropractic.

The Lincoln School of Chiropractic was organized in September, 1916. It requires certificates of good moral character and a reasonably good intelligence which is determined by the letters and conversation of the applicant. He said that some applicants are denied admission. His school has no hospital. It has fifteen students. It is not licensed by any governing authority such as the Regents of the State of New York. It is a corporation with $60,000 capital. It charges $600 for the three year course. It has not yet declared a dividend, but will distribute its profits to the stockholders when it earns the money. When he was asked if he knew of other professional schools that were run solely on their tuition fees, he named the Ferris Institute, which gives instruction in shorthand, kindergarten, college preparation and other subjects. He said that all chiropractic schools were run on fees and none had an endowment. As for the schools being conducted for profit, he said the teachers had at least to make a living out of them.

Mr. Firth was over an hour in giving his testimony. His evident intention was to tell what chiropractic is, and in this he was given every opportunity.

The next witness was Dr. Frederick A. Fischer, who has an office in the Otis Building, Philadelphia, Pa. He had spent two years in a high school and had graduated from a pharmacy school and then graduated from the Hahneman Medical School, Philadelphia, in 1895, with the degree of Doctor of Medicine, but he did not serve an interneship and has not been connected with a hospital except for five years in an outpatient department. He spent two years in a high school and in 1910 he took a six months' course in the Marschand School of Chiropractic, Philadelphia. His course was short because he needed only the purely chiropractic part. He is a member of the Medical Society of the State of Pennsylvania, and of the County of Philadelphia, of the Institute of Homeopathy and of the Germantown Medical Society. He practices both medicine and chiropractic and considers them distinct from each other, although he considered a knowledge of medicine necessary in order to practice chiropractic. He has no sign of chiropractic on his door, for his patients know that he gives that form of treatment.

Dr. Fischer told why he took up chiropractic. He had met a doctor friend whose wife a chiropractor had cured of blindness following retinal hemorrhages. Dr. Fischer went to the friend who seems to have practiced chiropractic and was cured of headaches and intestinal statis. He then took a course in the Palmer School of Chiropractic and practiced adjustments. He tried it on a man, aged 24, who had typhoid fever, but was unsuccessful at first, for he did not know that the sicker the patient was the more rigid was his spine. At the end of the fourth week the patient had a hemorrhage and Dr. Fischer realized that he would have to adjust the vertebra soon in order to save the patient's life, and so he took the patient out of bed and with much force he put the second lumbar vertebra in place and from that moment the patient got well.

Dr. Fischer then described the cure of a boy with rheumatism, a girl with paralysis following a fall down stairs, a boy of 13 at Nanticoke, Pa., who had never walked, a girl who was delirious with pleurisy and was made well by a single treatment. He also said that his mother and sister had died of tuberculosis and his aunt had the disease, but no more cases had developed in the family since he had taken up chiropractic.

After Dr. Fischer had ended his direct testimony, he answered the following questions:

Q. Do you regard medicine and chiropractic as separate and distinct sciences?

A. Yes.

Q. Is it necessary for a chiropractor to have all the education of a doctor of medicine?

A. Not all.

Q. To what extent might his education be limited and he still be a good chiropractor?

A. He should be able to diagnose by physical diagnosis; not by bacteriology or by chemistry.

Q. Assuming that a chiropractor is not a physician, could he diagnose a case by the spine and the history?

A. I can put my hand on a spine and can tell what organs are sick.

Q. Could a chiropractor, who is not a doctor, make a diagnosis?

A. He would need to take the temperature, to examine the chest, and abdomen. He should know what organs are diseased.

Q. You took six months to learn chiropractic; was that enough?

A. No. An ordinary man would need three courses of six months each.

A. Would that be enough to make him useful to the community?

A. Yes.

Q. Do you believe in premedical courses?

A. They do not improve the man or make him a better doctor.

Q. Do you know of any medical college run as a business corporation?

A. No.

Q. Is the public served by a chiropractic school?

A. Yes.

Q. Is it good policy for an institution for public good to be run privately?

A. Not as a rule.

Q. Do you recognize a deficiency in the subjects taught to chiropractors?

A. Yes, in the past. The schools are adding physical diagnosis and bacteriology.

Q. Do you know of any chiropractic school that has an interne?

A. No.

Q. Do the students go from the chiropractic schools directly into practice?

A. Yes.

Q. Do you as a practitioner of medicine think this is good?

A. No, but they get results.

The second session of the chiropractic hearing was held on the morning of Thursday, December 23, in the City Hall. The first witness was Judge Herbert Vander Zee, who has been the counsel for the State Association of Chiropractors for five years. He submitted a digest of the laws of the several states relating to chiropractic. From a study of these laws the Judge concluded that it was the policy of the states to recognize and license chiropractors. The states of Oklahoma and California had refused to recognize the chiropractors until a referendum in each showed an overwhelming sentiment in their favor.

The Judge then gave a brief history of the proposed chiropractic laws of New York State. A chiropractic bill was passed during the first year of Governor Smith's term of office, but the Governor had vetoed it on the ground that the policy of the state was to maintain the Regents as the single board of examiners in all educational requirements.

The Judge said that the bills for the past five years would require the chiropractors to pass all medical subjects except obstetrics, surgery and materia medica.

Regarding the waiver clauses admitting all present chiropractors to practice, the Judge said: "As a general proposition all professional experience in the past has been accepted as a qualification to practice."

The next witness was Dr. Frederick H. Hirschland, a graduate in medicine from a German University but not licensed in New York State. He taught pathology in the Flower Hospital at one time and is now treasurer of the New York School of Chiropractic which was established in 1912 at 124 West 74th Street, New York, and now has 75 students and 4 teachers. The students come from all over the world: Japan, Canada, Australia and France and represent a "League of Nations."

The school has a paid up capital of $10,000 and shares are held by the instructors. It is not licensed under the Regents. It is organized under the laws of Delaware and its agent in this state is an attorney who lives in Far Rockaway, and is a shareholder in the school. The commencement exercises of the school are held in New York City but the diplomas are issued from the office in Wilmington, Delaware. Dr. Hirschland said that the constitution of New York required the recognition of degrees issued in another state and in this way he justified the evasion of issuing the diplomas in another state.

As to educational qualifications, the witness said that a high school education or its equivalent was necessary, but that his school determined what that equivalent was. He said that a chiropractor in actual practice should be given the right to continue just as the physicians in practice in 1892 were allowed to continue. He did not believe in correspondence courses at all.

The next witness, also the last, was Mr. Vernon Baker of Tannersville, Greene County, N.Y., a Justice of the Peace and auto dealer. He was not a chiropractor but had been treated by a chiropractor.

His first treatment was received nine years ago after being struck by an automobile. He sent for his doctor, but got no better for a day or two, and then a commercial traveller induced him to consult a chiropractor in Kingston and in three days he was entirely well.

Then Mrs. Baker fell down stairs and had gall stones, and was nigh unto death, being kept alive by arsenic and strychnine. An operation was suggested and was refused. The Kingston chiropractor said she was a simple case of gall stones and that he could cure her. He gave her an adjustment and that evening she belched wind six times and was well on the road to recovery.

Next Mr. Baker went deaf following a dose of medicine and a doctor said he would be at least five years getting well. The chiropractor cured him in two weeks.

Mr. Baker's further experience followed a little supper of roast beef and beans and the next morning he lay on the floor with colic. During the next three days a doctor gave him two doses of castor oil, six cascarenes and nine doses of ex-lax without result. On the fourth day he went to his chiropractor who gave him three adjustments an hour apart and after the last he went to the bathroom and was relieved. He said that when he went home his doctor asked him: "Why did you not wait until you were cured before you went to the chiropractor?"

The last experience that he related was that of his daughter who fell when she was four years old and had a deformed leg ever since. The chiropractor straightened the leg and helped her to walk.

The committee will hold other hearings of which due notice will be given. The hearings will be reported in this Journal in order that the members of the Medical Society of the State of New York may be informed of the claims of chiropractors and may prepare themselves to answer their arguments.

ART EXHIBIT

An exhibition of works of art done by physicians will be held in the New York Academy of Medicine, Fifth Avenue and 103d Street, New York City during the first two weeks of next March. Specimens are solicited from physicians living in any part of New York State. Among the articles desired are paintings, etchings, sculptures, photographs, wood engravings, book binding, and any other work of art suitable for exhitbition purposes. Sixten physicians have already entered exhibits. For information address the New York Academy of Medicine.

THE GOVERNOR'S ANNUAL MESSAGE

Governor Alfred E. Smith has always shown himself favorable to measures for the promotion of public health, and has been a foremost promoter of those aspects of civic medicine whose practice requires the cooperation of the State. His annual message to the Legislature contains whole paragraphs which set forth the policies of the administration on several public health topics which are under consideration.

Believing that the Governor's views are of interest to every physician and that doctors generally approve his opinions and conclusions, we are printing those parts of the message which pertain to health. The extracts are taken from the text as printed in the *New York Times* of Thursday, January 6, 1927.

Motor Vehicle Operation

Safety on the highways is a matter of deep concern to the State. Remembering that it took several years to convince the Legislature of the necessity for a State-wide control of motor vehicle operation, it is even more gratifying to record the success of the Bureau of Motor Vehicles in cutting down the number of deaths caused by motor vehicle operation. Notwithstanding that there are 191,000 more automobiles registered this year than during 1925 and over 200,000 additional licensed drivers, deaths due to motor vehicle operation during the calendar year 1926 are 2,093, as compared with 2,120 during 1925.

The successful cooperation between the public at large and the officials charged with the administration of the motor vehicle law is in no small measure responsible for the decrease. When we consider that nearly 20,000 reckless, careless, incompetent or intoxicated drivers were taken off the highways of the State during the last twelve months and that nearly half the applicants for driver's licenses were rejected, the efficacy of the law is apparent.

Grade Crossings

Unquestionably, one of the most important steps taken by the State in recent years for the preservation of human life and property was the amendment to the Constitution placing the State in position to finance the State's share and to help the State's partners in the work of the elimination of dangerous railroad crossings at grade.

There seems to have arisen in the extremely rural districts a pronounced disinclination to proceed with the work of railroad crossing elimination. This is undoubtedly due to the tax burden added to the small localities to pay their one-fourth share of the cost. Until the smaller municipalities are relieved of some part of their share of the cost of elimination, activities will in general be confined to the more wealthy districts of the State.

Your honorable bodies put forward last year and passed for the first time a new amendment to the Constitution which will permit the county to come to the aid of the smaller unit. I would suggest that at the earliest possible moment we have a joint conference between the agencies of the Government charged with the work and representatives of the Legislature. I will be very pleased to attend such a conference in order that we may map out a definite program to treat this grade crossing proposal as something of State-wide interest, which it really is.

Since the dairy industry of the State is so very important and with the growth of population in the cities there is such demand for milk and cream, the State has devoted considerable attention to the protection of the milk supply. One important phase of this has been the protection of the public health against bovine tuberculosis. Since 1924, the Department of Agriculture has adopted a unit for control based on the township, so that there is now a definite standard of measurement of progress. Beginning with a cattle population of 2,000,000 and widespread and deep-seated infection, the difficulties of eradication can easily be appreciated. With a definite goal of complete elimination in 940 townships, it is gratifying to know that the work has been completed in over 470 of such units. In other words, more than half are now in good condition.

I urge upon you that there be no curtailment of this work, but that its encouraging results be carried through to a 100 per cent eradication of this menace to the public health.

Rural Population

It is noticeable that the drift from the country to the cities continues. In 1917 there were 890,000 people living on the farms of the State. This number had fallen on Jan. 1, 1925, to 767,500. This is not due in any large measure to unfavorable living conditions in the country but to the disparity of economic opportunity between the farm and the city workshop.

With intelligent State planning and proper distribution of hydroelectric energy some of this urban population may again return to less densely populated communities and benefit the agriculturist by providing markets closer at hand and making transportation less expensive and hazardous.

The State's solicitude for its rural population, as is indicated by the reports not alone of the Department of Agriculture but of the Departments of Public Health, Conservation and other State agencies, is undoubtedly making itself felt in improved conditions and better returns for the farmer.

Public Health

Among those diseases and conditions which are unquestionably preventable within our present knowledge, the decrease in illness and deaths has been for the most part extremely satisfactory, although the general death rate among the people of the State in 1926 shows a fractional increase over that of the previous year, due almost entirely to higher mortality from influenza, pneumonia, diseases of the heart and cancer.

The soundness of the slogan of our Health Department that within natural limits public health is purchasable has so far been demonstrated by the record.

The campaign against diphtheria, inaugurated by the State Department of Health and cooperated in by the general medical profession, unofficial health agencies and insurance companies, is already showing notable results. In 1888 diphtheria killed 6,500 persons in the State of New York while the total for 1926 will be under 700, much the lowest death rate ever attained. It may be expected that with the continued cooperation of all agencies and the people at large, diphtheria, not long ago one of the scourges of childhood, will be eradicated from the State.

Scarlet fever has almost ceased to be a factor in childhood mortality. The tuberculosis death rate during the past year reached a new low mark, being less than half the rate of twenty years ago.

It is most gratifying to note that the increased funds afforded to the work of prevention of maternal and infant mortality are producing favorable results. The mortality among women from septic poisoning in childbirth was lower in 1926 than ever before; and there is every hope that we are approaching a time when childbirth will no longer hold any risk of avoidable infection.

Strange to say, that while the death rate from preventable diseases here mentioned is constantly on the decrease, deaths from alcoholism have increased fivefold between 1920 and 1926, a condition, I am informed by our Department of Health, which is prevalent in all parts of the country. Surely this is a preventable disease and one most difficult for a Department of Health to deal with.

Under existing law a county is permitted to constitute itself a general health district with its own health officer, personnel and budget. This amendment was made to the Public Health law as far back as 1921 upon the recommendation of the late Health Commissioner, Dr. Hermann M. Biggs. It is a matter of history that he was deeply concerned about it and had an unshakable faith in the advantages to the public health that would result from the establishment of larger health units on a county basis. It is regrettable that in the time that has elapsed since the enactment of the statute only one county in the State has taken advantage of it.

I most earnestly recommend that this system of health organization be tried by other counties. In order to make an effort to bring to the attention of Boards of Supervisors the benefits that accrue from this form of organization, I propose during the Winter, in conjunction with private health agencies and our own State Health Department, to hold a conference on this subject in Albany.

State Aid to Communities

The law which grants State aid to rural communities for public health work has worked out in an extremely satisfactory way. Up to the present time twenty-four counties have taken advantage of it largely for the purpose of providing county public health nurses. Thus at a comparatively small cost to the State and county a very promising beginning has been made in providing a much-needed service to rural counties.

The Legislature, by enacting laws providing for the physical care, education and welfare of physically handicapped children, has very wisely placed the major responsibility upon local public agencies, providing at the same time for State financial aid.

The Judge of a Children's Court may now issue an order for the care, treatment or education of a crippled child, fixing the amount to be expended and the part of the expense, if any, to be borne by the parent or guardian. When this order has received the official approval which the law requires, the balance of the expense becomes a county charge, the county being entitled to partial reimbursement by the State.

Administration of this important activity is vested in a bureau in the State Department of Education cooperating with the State Department of Health. The number of court orders already issued indicates a growing appreciation of the needs of this class of unfortunate children and of the wisdom of assisting them to become self-supporting citizens. I recommend that this work be continued and, so far as possible, extended.

Another provision for State aid to public health efforts permits the various districts of the State to secure a local laboratory service equivalent in scope and standards of work to that of the central State laboratories. Nowhere else is there to be found such a completely organized, coordinated and cooperating system of public health laboratory service as is now developing in New York State. There are now 106 approved laboratories. Of these, 22 are functioning under State aid serving 14 counties and the large centres of population in 4 additional counties, and at least 4 more counties have laboratory service under consideration.

With the allotment from the bond issues, the State laboratory will be able to complete its program of building started ten years ago. With these improved facilities the public health laboratory service of the State will be unequaled. The number of visitors from other States and foreign countries who come here to study our laboratory system continues to increase, showing that the organization and work of the laboratory have received world-wide recognition.

Medical Practice Act

A most important step in the promotion of health was taken last Winter in the revision of the Medical Practice act. The annual re-registration of licensed physicians will facilitate the discovery of those who are practicing medicine, though not licensed so to do. The prosecution of such persons is made easier. It also establishes a grievance committee of physicians, which will examine into complaints against licensed physicians and report to the Board of Regents what action should, in its judgment, be taken. Some time must necessarily elapse before these new and important provisions can be fully carried into effect and the public benefits therefrom be fully realized. They should go very far toward bringing about a condition of affairs in which any person suffering from accident or sudden illness, in any part of the State of New York, and seeking the services of a physician, can be assured that he is not falling into the hands of a person lacking the essential requirements of medical education.

New York State leads in its conception that protection of the public health is a primary function of the State. It is on that theory that we have established our several forms of State aid to local efforts in this direction. I bespeak your continued cooperation with this department and a continuance of liberal appropriations for its work.

Department Mental Hygiene

On the whole question of the care of the mentally afflicted I propose to communicate with you much more fully at a later date, and at that time I will set forth the exact condition at all of the State hospitals, showing in detail improvements made as a result of the expenditure of the money received from the sale of bonds. For the purpose of this message I will deal only with the progress made in care and prevention.

The establishment of a unified department of mental hygiene to exercise the functions of the present State Hospital Commission and State Commission for Mental Defectives and to supervise the care of epileptics is a great forward step. The State thus recognizes the fact that the institutional care of the mentally afflicted is a single problem and that progress will be facilitated by union of effort. A high standard of care of patients has already been reached by the institutions brought together in the new department, but it is believed that through free interchange of ideas the various institutions will be mutually helpful in the solution of their many problems.

The establishment of a division of prevention in the new Department of Mental Hygiene commits the State to a new policy with respect to mental defectives. Heretofore the State has provided generously for the care and treatment of the mental patients sent to institutions, but has done comparatively little to prevent the development of mental disease in the community. No one can predict the possibilities of preventive work in this field; but from the marvelous results that have been accomplished in the prevention of physical disease, we may confidently hope that the influx of patients in the State hospitals may be checked and that the heavy burdens thereby imposed on the people of the State may be lessened.

Judging from the experience gained in the prevention of physical diseases, three major lines of activity are indicated in the field of mental hygiene. Research work should be conducted on a more comprehensive scale. Preparations to do this are being made by the erection of a large psychiatric institute and hospital to form a part of the new medical centre in New York City. Now that this main institution of the State hospital system in New York City is about to take form, I would recommend the development of one or more similar institutions of smaller size in strategic centres up-State, particularly in cities where medical schools are located.

Last Winter I approved a bill which authorized the construction of a State psychiatric hospital in Syracuse in connection with the university medical centre there, as soon as funds are available for construction. I urge that an appropriation for the construction of this institution be made available this Winter in order that an up-State centre for early treatment and teaching purposes may shortly follow that in New York City. The studies carried on in these centres should be supplemented by field work and by researches in the State hospitals and other institutions. The field is broad and research work therein difficult; but every means must be taken to discover more effectual methods of relieving the mentally afflicted and of preventing the development of mental disorders.

The clinics conducted by the State hospitals for the early treatment of persons suffering from mild nervous and mental disorders, and to aid in the adjustment to community life of paroled and discharged patients, have proved of great value, and should be extended so as to become more effective preventive agencies. Thus far the clinics have dealt principally with adults. Children manifesting marked behavior disorders should also be reached. This could best be done by the establishment of permanent child guidance clinics in the principal cities of the State.

Marked progress has been made in the development of occupational treatment of patients in the State hospitals. At the close of the fiscal year the number of patients receiving occupational therapy in special classes was 11,379, as compared with 9,848 at the end of the previous year. This treatment, which is conducted by trained occupational therapists and physical instructors under the supervision of the medical staff, is proving of inestimable benefit to the patients.

Child Welfare

Our great State has abundant reason to be proud of achievements in the field of child welfare and especially of our care of orphan children. We are in the very front of the commonwealths of the country in safeguarding the rights of children and preserving home life when the family has been deprived of the provider by death.

To my mind, however, there remains one important thing to be done and that is encouragement to the localities to establish child welfare agencies by a State subsidy for the care of widows and orphan children. I recommend that State appropriation be made directly to each organized board of child welfare of an amount equivalent to that annually appropriated by local authority. This suggestion has for its purpose not only aid to the locality, but is intended to furnish encouragement to the localities that have not yet made ample and sufficient appropriation for this very worthy object.

THE ANNUAL MEETING

The Annual Meeting of the Medical Society of the State of New York will be held at Niagara Falls, May ninth, tenth, eleventh, and twelfth.

The House of Delegates convenes on Monday, May 9th. The scientific sessions begin on Tuesday afternoon, May 10th, and continue Wednesday and Thursday. Thursday will be devoted entirely to the study of cancer. There will be demonstrations, clinics, and lectures.

ROOM RATES

NIAGARA FALLS, NEW YORK

Names and Location	Persons Capacity	Room One Person With Bath	Room One Person Without Bath	Room Two Persons With Bath	Room Two Persons Without Bath
Hotel Beirs, 109 Falls Street	211	$2.50	$2.00	$3.50	$3.00
Hotel Clifton, 18 Falls St.	175	3.00 to 3.50	2.00 to 2.50	5.00 to 7.00	4.00 to 5.00
Converse House, 325 First St.	250	3.50	2.00 to 2.50	5.00 to 6.00	3.00 to 4.00
The Edwards, 342 Prospect St.	100	3.00	2.00 to 3.00	5.00	2.50 to 4.00
Imperial Hotel, 126 Falls St.	248	2.50 to 3.50	1.50 to 2.50	4.50 to 6.00	3.00 to 4.00
The Inn, 223 Second St	60	3.00	2.00	4.00	2.50 to 4.00
Moose-Tower Hotel, 313 Riverway	125	2.50 to 3.50	1.50 to 2.00	4.00 to 7.00	3.00 to 5.00
The Niagara, Jefferson and 1st St.	414	3.50 to 5.00	3.00 to 3.50	5.50 to 10.00	5.00 to 6.00
Prospect House, 203 Second St.	100	3.50 to 5.00	3.00	6.00 to 10.00	5.00
Red Coach Inn, Buffalo and Main St.	50	4.00 to 6.00		7.00 to 10.00	6.00
Rose Cottage, 225 Second St.	60	3.00 to 4.00	2.00 to 3.50	4.00 to 7.00	3.00 to 5.00
Temperance House, 318 Second St.	504	3.00 to 3.50	2.00 to 2.50	5.00	4.00
Watson House, 316 First St.	250	2.50 to 4.00	1.50 to 3.00	4.00 to 8.00	3.00 to 4.00

NIAGARA FALLS, ONTARIO

Names and Location	Persons Capacity	Room One Person With Bath	Room One Person Without Bath	Room Two Persons With Bath	Room Two Persons Without Bath
*The Clifton, River Road	450	4.50 to 8.00	3.50 to 5.00	8.00 to 14.00	6.50 to 8.00
Fox Head Inn, Clifton Hill	90	3.50 to 4.50	2.00 to 3.00	5.50 to 7.50	3.50 to 5.00
King Edward Hotel, Queen and Clifton st.	80	3.00		5.00	
Lafayette Hotel, River Road	110	3.00	2.00	5.00	3.00
Queen's Hotel, River Road	25	3.00		5.00	
°The Savoy, Bridge St.	50	4.50	4.00	9.00	8.00

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*Season May 15th to September 22nd.

°American Plan.

The program for cancer day is being arranged by a special committe of the Committee on Scientific Work, of which Dr. Burton T. Simpson of Buffalo, Director of the State Institute for the Study of Malignant Diseases, is the Chairman. The subject will be presented in a manner as interesting and as broad as was that on syphilis last year. When you make arrangements for attending the meeting, please arrange to stay for Thursday.

The Committee on Arrangements is looking for a record attendance at the Annual Meeting and arrangements are being made accordingly. At the season of the annual meeting Niagara Falls will appear at its best. This meeting will therefore provide not only an opportunity of listening to a very interesting scientific program, but also an opportunity to have a few delightful days of respite from routine professional cares.

There follows a list of hotels at Niagara Falls, with accommodations and rates. These are regular prevailing rates and the same will be in effect during the meeting. The hotels on this list are members of the Hotel Association at Niagara Falls and can be depended upon as being absolutely as represented.

Reservations should be made direct with the hotel. If for any reason you desire information regarding hotels other than given here, please address Dr. George L. Miller, Chairman of the Committee on Hotels, Chamber of Commerce Building, Niagara Falls, New York.

In later issues of the Journal, the Committee on Arrangements will endeavor to give further information and details concerning points of arrangements, such as, transportation, touring information, garages, etc. For the present, will you not please take advantage of the above information and make your hotel reservation early?

Frederick J. Schnell, M.D.
Chairman, Committee on Arrangements.

DINNER TO DR. WENDELL C. PHILLIPS

A dinner in honor of Dr. Wendell C. Phillips, President of the American Medical Association, will be held on the evening of Thursday, January 27, in the Waldorf-Astoria Hotel, New York City, under the auspices of the Medical Society of the State of New York. The dinner was authorized by the Council at its last meeting, and the following committee of arrangements was appointed: Drs. N. B. Van Etten, Chairman; D. S. Dougherty, O. S. Wightman, W. H. Ross and John Jennings.

The dinner is a recognition of the advancement of a physician of New York State to the leadership of the national medical society. Dr. Phillips has served as president of the New York County Medical Society and the Medical Society of the State of New York, and has retained his activities in both societies, although his national office makes heavy demands on his time. A record of his activities would constitute a history of organized medicine in New York State for the past forty years.

The committee of arrangements have planned that groups of doctors may reserve their own tables. The ladies will be made welcome. Tickets are six dollars each. A reception to Dr. and Mrs. Phillips will be held at 7 o'clock, and dinner will be served half an hour later.

Dr. George M. Fisher, President of the Medical Society of the State of New York, will preside. The speakers will include Reverend Dr. Harry Emerson Fosdick, Dr. Frank Billings of Chicago, Dr. George David Stewart, President of the American College of Surgeons, and Dr. Samuel Lambert, President of the New York Academy of Medicine.

Since this is an official event, there should be a large attendance from all parts of New York State. Letters have been sent to the officers of all the county societies and responses are already being received.

Among the organizations which will be represented is the League for the Hard of Hearing which will have several tables specially wired, so that the deaf members may hear the speeches. The members of this organization are especially desirous of honoring Dr. Phillips because he was the founder of the American Federation of Organizations for the Hard of Hearing.

WAYNE COUNTY

The following account was clipped from the Lyons *Republican* of December 14:

The Wayne County Medical Society, at a recent meeting at the Court House in the Village of Lyons elected new officers for the ensuing year. The officers elected are as follows: President, Dr. William H. Sweeting of Savannah; vice-president, Dr. Frederick W. Andrews of Sodus; secretary and treasurer, Dr. Dewight J. Johnson of Newark.

An interesting program was rendered and the meeting was one of the largest and best attended meetings held in the history of the association. Dr. Alfred K. Bates of Auburn and Dr. R. R. Finch of Rochester were the principal speakers from outside of the county. Many members of the association took part in the general discussion which took place and the meeting proved to be a most interesting and profitable one.

Dr. William H. Sweeting, who is president of the Society, is a son of the late Dr. Mortimer F. Sweeting of South Butler, who in his day was one of the most prominent citizens in eastern Wayne, both in the field of medicine and in politics.

THE DAILY PRESS

POISON ALCOHOL

The daily papers have recently been carrying big headlines asserting that poisons in alcohol are the immediate cause of numerous deaths from alcoholism during the holiday season. The *New York Sun* for Thursday, December 30, says:

"Poison holiday liquor yesterday took four more lives in New York City, bringing the toll since Saturday to 34, for the month to 64, and for the year to 758, a record for all time. Indignant protests against the policy of the Government in poisoning alcohol poured in from prominent citizens and officials. Medical authorities gave out figures of the alarming increase in the number of deaths from alcoholism since prohibition was adopted.

"That the wave of death from bad whisky and gin has not abated is shown by the reception at Bellevue Hospital last night of fifteen more cases of acute alcoholism, making a total of 125 persons treated there this week.

"In many cases where death results from alcoholism, if there is complication from pneumonia or heart disease, the family physician, according to health authorities, will give one of the latter causes in his report to save relatives of the dead man from what they might consider shame. For this reason the total of deaths from liquor poisonings is never known, not even approximately. Officials admit that it may easily run into thousands a year."

The question arises, are the deaths caused by poisons added to the alcohol; or are they due to the ordinary ethyl alcohol which is the essential component of all alcoholic drinks? On this subject, Dr. Louis J. Harris, Commissioner of Health of New York City, is quoted in the *New York Herald Tribune* of January 5, as saying:

"A grand total of about 430 alcoholic cases of all kinds treated in hospitals throughout the city during the period between Christmas Eve and yesterday had been reported last night to Health Commissioner Harris, who is making a survey of the situation at the suggestion of Mayor Walker. Of these considerably more than half were treated at Bellevue, where ten new sufferers from alcoholism were admitted yesterday. No deaths were reported during the day.

"Dr. Harris, commenting on the hospital reports, said that his survey showed 'neither an unusual number of cases of alcoholism in the city hospitals nor unusual poisoning from alcohol.

" 'There was considerable acute sickness as the result of excessive drinking, as there has been during holiday periods in the past,' he said.

" 'But I see no reason for any alarm about poison alcohol. I see nothing in the situation calling for specific action on my part at this time. There is as much liquor flowing freely, apparently, as when there was no prohibition law, and that is the most important lesson to be derived from our survey.' "

In contrast with this opinion of a physician formed after an investigation, is the opinion of a noted educator whom the *New York Herald Tribune,* of December 30, quotes as follows:

" 'Murder! Just plain, unadulterated murder by our glorious, paternal government, is what I think of the deaths attributed to consumption of liquor manufactured from poisoned alcohol,' " exclaimed Dr. Nicholas Murray Butler, president of Columbia University, at his home, 60 Morningside Drive, last night."

And there is also the following opinion of Wayne B. Wheeler, General Counsel of the Anti-Saloon League, which is quoted in the same paper with Dr. Butler's opinion:

" 'The Government,' said Mr. Wheeler, 'is under no obligation to furnish the people with alcohol that is drinkable when the Constitution prohibits it. The person who drinks this industrial alcohol is a deliberate suicide.' "

There are thus three conflicting theories regarding the recent deaths from alcoholism; and the newspapers give by far the greatest publicity to the poison theory, meaning a poison added to the drink. The scientific literature available on the subject is meagre, and physicians as well as laymen have to depend on the items in the daily newspapers for information. The *New York Times* made an effort to obtain the facts regarding the poisons contained in alcoholic drinks.

It is common knowledge that the poisons consist of substances added to alcohol in order to "denature" it, or render it obnoxious for human consumption. The substance most commonly used is wood alcohol. Denatured alcohol has been extensively made and used over all the world for at least a quarter of a century, but with the recent increase in bootlegging in the United States, anything containing alcohol is distilled and the product is sold for drinking purposes. A liquor distilled from denatured alcohol will contain some of the denaturing substance; and many of the deaths from alcoholism are caused by the wood alcohol or other poisons besides ethyl alcohol. If murder, or suicide, or just plain death follows the drinking of this liquor, who is guilty, the Government official who denatures the alcohol, the bootlegger who sells it, or the person who buys and drinks it?

Then, too, another complication rises. It is well known that any alcoholic liquor recently distilled is poisonous. Would a large number of cases of poisoning develop if the liquor was distilled from fermented grain?

The fact is that no scientific basis or standard has been developed or put into general practice by which the truth regarding the deaths can be ascertained. It would seem that out of the millions of dollars appropriated for prohibition enforcement, a good sum, say one million dollars, could wisely be given to some medical laboratory to be used in the investigation and publication of the facts regarding alcoholism.

According to the *New York Times* of December 30, two newer denaturing formulas proposed by the United States Government are as follows:

"Effective January 1, 1927. Completely Denatured Alcohol Formula 5 will be compounded according to either one of the following formulas: After April 1, 1927, it will be compounded only according to the first one of the stated formulas:

OPTION 1

"100 parts by volume ethyl alcohol, not less than 160 degrees proof.

"48 parts by volume approved methanol (denaturing grade).

"0.75 parts by volume of the compound or one similar thereto known as aldehol grade A.

"0.5 parts by volume approved benzine (kerosene).

OPTION 2

"100 parts by volume ethyl alcohol, not less than 160 degrees proof.

"4 parts by volume approved methanol (denaturing grade).

"2.25 parts by volume approved pyridine bases.

"0.25 parts by volume approved pyridine (kerosene)."

The problem of denatured alcohol is further complicated by its relation to manufacturing. The *New York Herald Tribune* of January 5, says:

"The Industrial Alcohol Manufacturers' Association has been seeking a suitable denaturant, less poisonous than wood alcohol, in cooperation with the chemists and scientists of the Mellon Institute at Pittsburgh for the last three months, but the problem has not yet been solved.

"Swollen hands, partial suffocation, headaches and often severe affections of the eyes trouble the workingmen and women who have to handle denatured alcohol treated with raw wood alcohol, it was said yesterday by Mr. Landes, attorney for several industrial alcohol manufacturers and users. Numerous cases of such poisoning have been brought to the attention of the Workmen's Compensation Bureau, he said, and labor generally should recognize the dangers that will ensue if the government succeeds in its efforts to make raw wood alcohol virtually the universal denaturant. The effects of methyl alcohol were not so severe, he said. Many manufacturers of varnishes, lacquers, stains, polishes, disinfectants and liquid soaps, among other industrial alcohol products, would be driven out of business or crippled by lack of proper workmen, it was said, if forced to use wood alcohol instead of the refined methyl alcohol."

Practically every substance used as denaturants is a poison, as also is ethyl alcohol. Other solvents besides the alcohols are used in manufacturing, such as carbon disulphide and banana oil, and most of them poisonous both externally and internally. The solvents used in manufacturing are fairly well standardized, their effects are known, and precautions are taken against their harmful effects. Manufacturers who employ thousands of workmen, and who have adopted precautions against the poisonous effects of solvents, are vitally interested in the proposals to change the denaturants used in alcohol. The welfare of thousands of workmen is quite as vital as that of the drinkers who take long chances in buying liquor.

This JOURNAL in its last issue commented editorially on tests for alcoholic intoxication, and called attention to the lack of accurate scientific data concerning the effect of ethyl alcohol when used as a drink. Equally unsatisfactory are the data concerning the effects of the denaturants upon the body both internally and externally.

The glaring headlines on "Poison Alcohol" that appear in the daily newspapers, and the columns of matter that are printed on the subject might lead the readers to conclude that an entirely new element had been injected into the drink problem. But the fact is that the pathological effects of both alcohol and its denaturants have been known *qualitatively* for years. What is needed is research which shall determine those effects *quantitatively*.

OUR NEIGHBORS

THE ENDOWMENT FOUNDATION OF THE MICHIGAN STATE MEDICAL SOCIETY

The Michigan State Medical Society has accepted funds for the purpose of promoting graduate education and has appointed the Grand Rapids Trust Company as trustee of the fund. Regarding the endowment the Journal of the Society for January says:

"Funds are necessary for our educational work. The increase of society dues is inadvisable. Consequently needed monies will be forthcoming from this foundation. As such monies become available our educational program will be broadened in scope and extent. The Council is now giving careful consideration to the creation of an all-year Michigan Post-Graduate Medical school. It is purposed also to send competent instructors to County Societies for one or two-day programs. We are alert to the need of the day and are seeking to formulate permanent plans that will supply those needs and serve the best interests of our members.

"Two bequests have already been made to the foundation. We are seeking others. We want and require an endowment of not less than $250,000. We believe that it is considerate to suggest, yes urge, that those who are able, should now tender additional bequests. Some may also desire to incorporate such a provision in their wills. It must be apparent that monies so bequeathed will provide funds in perpetuity for our profession. But more in that regard will be imparted in a future issue. This statement acquaints you with a plan that has resulted from much thought and labor. It also imparts the broadening scope of your society's endeavor giving added reason for membership affiliation."

DIAMOND JUBILEE OF THE IOWA STATE MEDICAL SOCIETY

The Journal of the Iowa State Medical Society for December contains an article entitled "The Diamond Jubilee," which recounts the historical facts regarding the practice of Medicine in the State of Iowa. The following extracts are taken from the article:

"That uncultivated prairie which later was named Iowa was first visited by the white man in the summer of 1673, two hundred and fifty-three years ago, when two brave Frenchmen the woodsman Louis Joliet, and the missionary Jaques Marquette, skirted the eastern short of Iowa on their momentous voyage of discovery.

"Dr. Isaac Galland with his family settled on the west shore of the Mississippi in 1829, at a point called At-Wip-E-Tuck, afterward known as Nashville. Doctor Galland hoped to build a city here, but Keokuk became too strong a competitor.

"One of our past presidents, the late Dr. C. F. Wahrer of Ft. Madison, has left some interesting data regarding this versatile and picturesque character of Iowa pioneer physicians. It was said of him that he was a brilliant physician and was specially successful in the treatment of cholera, as well as the prevention of the epidemic. One of his contributions was a medicine chest or box about one foot cubic, on which was printed in red letters, 'Dr. Isaac Galland's Family Medicines.' This box contained the usual and ordinary remedies used by the doctors in those days, and was placed in nearly every cabin in his wide field of practice. This no doubt was very helpful as physicians and drugs were scarce. He evidently did not practice all of the time, but was engaged in many other pursuits. In 1830 he established the second newspaper published in Iowa called 'The Western Adventure.' Two years later the paper was sold and the name changed to 'Madison Patriot.' In the columns of this paper he left a description of the prairies and waters of Iowa, its animals, serpents, birds, plants and Indians, their life and habits, which showed him to be an able writer and historian. He also wrote a history of Iowa, made a map of Iowa, and in 1840 wrote a book, 'The Iowa Immigrant.'

"For a time he lived across the river in Illinois, and while there was very active as a Mormon elder, being the private secretary of Prophet Joseph Smith in the Nauvoo settlement, but when Prophet Smith lost prestige and his growth waned in Nauvoo, Doctor Galland left the church. He practiced at various times in Nashville, now Galland, Montrose and Ft. Madison, where he died in 1858.

"In this and in numerous other instances it will be seen that men educated as physicians had much to do with the development of the state. They brought with them the beginnings of general culture, and by reason of the culti-

(*Continued on page 98, adv. xvi*)

The Management of an Infant's Diet

Malnutrition, Marasmus, Infantile Atrophy, Athrepsia

In an endeavor to improve conditions that may be properly grouped under the above-mentioned terms, the first thought of the attending physician is an immediate gain in weight, and the second thought is to so arrange the diet that this initial gain will be sustained and progressive gain be established. Every few ounces gained means progress not only in the upward swing of the weight curve, but in digestive capacity in thus clearing the way for an increasing intake of food material. As a starting point to carry out this entirely rational idea, the following formula is suggested:

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This mixture furnishes over 56 grams of carbohydrates in a form readily assimilated and thus quickly available for creating and sustaining heat and energy. The mixture supplies over 15 grams of proteins for depleted tissues and new growth, together with over 4 grams of inorganic elements which are necessary in all metabolic processes. These food elements are to be increased in quantity and in amount of intake as rapidly as continued improvement is shown and ability to take additional nourishment is indicated. Suggestions for this readjustment are set forth in a clear manner in a pamphlet devoted exclusively to the subject, which will be sent to physicians upon their request.

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vated power of observation, freedom from prejudice and superstition, and knowledge of the dangers surrounding the early settler, made the doctor peculiarly fitted to aid in the pioneer work of the settlement.

"Probably the first real pioneer physician to locate in Iowa was Dr. Frederick Andros, who came to Dubuque in 1833 for the distinct purpose of practicing medicine. He was a native of Massachusetts, a graduate from the literary department of Brown University in 1822, and from the medical department in 1826, coming to Dubuque seven years later.

"The late Dr. Henry H. Clark of McGregor was associated with Doctor Andros during the ten years from 1870 to 1880, and in an address before the State Society in 1916 gave some interesting reminiscences of this first physician of Iowa. Doctor Andros was evidently far superior in intelligence and ability to the average physician of his day, but at the same time he was a typical frontiersman and something of a character. Dr. Clark related this story which will bear repeating—'I remember a country drive I took with him a short time after I came to McGregor. He drove a good horse, but he interfered so badly that either his right or left hind leg seemed to be in the air most of the time. As we were jolting over a rough road back in the Mississippi hills, the Doctor suddenly stopped his horse with the remark—'There's the damnedest nicest spring over there I ever saw.' We got out and walked over to where a fine stream of water gushed from the rocks and formed a pool about three feet in diameter and eighteen inches deep. The Doctor took off his high silk hat, which he always wore and in which he carried his letters, red bandanna, cigars, stethoscope, and always either a clean or dirty collar; pulled off his coat, rolled his sleeve to the elbow and thrust his hand to the bottom of the spring. After lifting aside a few stones, he pulled out a flask of whiskey, uncorked it, took a generous drink and then returned the bottle to the bottom of the spring for future use.

"In 1880 when he was eighty years old he decided that Iowa was getting too civilized and tame, and went west 'to grow up with the country.' He practiced in Dakota for ten years, after which he changed his residence to Minneapolis where he died at the age of ninety-one years.

"It was a fine group of notable practitioners of medicine who located in Iowa before the year 1850. Very few came any farther west than Oskaloosa. Iowa appeared a fruitful field for the young practitioner with ambition to succeed in many ways. It thus happened that many pioneer settlements secured medical practitioners of a selected class, men of strength, courage and

(*Continued on page 99—adv. xvii*)

haracter. Success in those days meant a deree of personal sacrifice, courage and deterination not ordinarily seen, and what success d reputation was finally secured was well rned. Doctors under these conditions became sourceful and self-reliant, and were able to eet emergencies to a degree rarely seen today. here was little opportunity for contribution to edical science, and there seems to have been ttle disposition to record 'interesting cases' or ersonal experience,' unless they were of real terest. Their work was rather a silent influce, that contributed to the general betterment f a community and of which very little has een recorded. The name of the doctor often emains only as a tradition.

"In 1850 nearly one-half of the physicians racticing in Iowa were not medical graduates. he men who had not attended a regular medial school were often not familiar with a code f ethics save one that would bring practical sults. While these were disturbing elements, ever-the-less, a liberal spirit on the better part f the physicians led to the belief that society ellowship would inspire better feeling and to ossible higher qualifications.

"When the twenty-five Iowa pioneer practioners of medicine met at Burlington, Iowa, in une, 1850, for the purpose of organizing a state edical society, it was in response to a firm elief in the minds of a few broad-minded phyicians, with a view to the future, that organized edicine was the only means of progress, and wards higher educational standards, with greatr benefits to the state and the people generally.

"The inspiring genius of the memorable ocasion and father of the Iowa State Medical ociety was Dr. John F. Sanford of Farmingon, and later of Keokuk. He had attended a eeting of the American Medical Association n Boston in May, 1849, when an appeal was ade for all states to organize state and county ocieties. This made such a profound impresion upon Doctor Sanford, that on his return ome he wrote many letters to physicians urgng them to meet in Burlington the coming May or the purpose of organizing the Iowa State Medical Society. Feeling that sufficient interst would not be aroused by correspondence lone, he concluded to make a personal appeal, nd went by stage to Keosauqua, Fairfield, Mt. Pleasant, Washington and Davenport, a distance f nearly 200 miles and then by steamer to Musatine and Burlington, Ft. Madison and Keokuk, pending a day in each town, calling upon the hysicians and urging their cooperation in this ew movement. As a result twenty-five physiians gathered at the court room in Burlington, une 19, 1850, for the purpose of organizing a State Medical Society, Dr. John F. Sanford

(*Continued on page* 100—*adv.* xviii)

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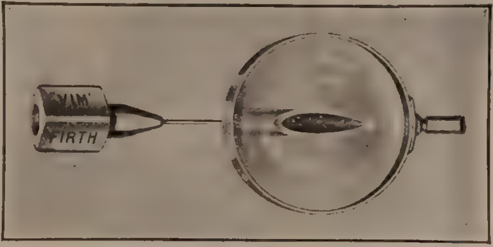

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"It was resolved that the first meeting of the Society be held at Fairfield, Jefferson County, on the first Wednesday in May, 1851. On the following day, June 20, 1850, the *Burlington Weekly Telegraph,* forerunner of the *Hawkeye,* referred to the organization meeting, in part, as follows: 'The convention is eminently respectable in appearance, and anyone would see at a glance that it embraces among its members all the learning known to the profession, and the numerous and able speeches made by various members during the debates of yesterday evinced a high degree of talent. Indeed, taken as a whole, it is perhaps the most respectable convention which has ever assembled in our state. There are many gray beards among them, who while adding dignity and weight of character to the convention, also give tone and direction to the proceedings.

"At the first regular meeting of the Iowa State Medical Society in Fairfield in May, 1851, Doctor Sanford presented an interesting report on the 'Causes Which Contribute to Depress the Science and Dignity of the Medical Profession of Iowa.' From this address we quote as follows: 'Some of the most prolific causes of this unhappy condition in the profession are due to the want of preliminary education in those who have entered the profession. A better preliminary education on the part of our medical students will do more to improve and maintain the honor and dignity of the profession than any arbitrary exactions of medical colleges or society or proscriptive legislative enactment. The establishment of numerous literary institutions in Iowa will doubtless display its influence in the ranks of the profession.' 'The second cause which tends to lower the estimation of the profession in the minds of the public refers to the influence of ignorance among the profession themselves.'

"The organization of county societies kept pace with the growth and progress of the State Society. The first society so designated was the Polk County Medical Society which was organized October 24, 1851, so that it also will be entitled to a diamond jubilee celebration in the near future. The Keokuk Medical Society was organized October 3, 1850, but the society was limited to Keokuk city, and did not include Le county, but it is fair to assume, however, that this was the nucleus of a county society.

"The influence of our State Society upon the progress and development of medical school and education would form a theme by itsel It is interesting to note the intimate relation o the work of the society to the progress of med cal education, throughout its entire existence."

SCIENTIFIC SERVICE COMMITTEE

The Illinois Medical Journal for December records the establishment of a committee on Scientific Service for county medical societies on September 1, 1926, by the Illinois State Medical Society. The object is to provide scientific programs for the county societies along the lines of medicine, surgery, obstetrics, gynecology, orthopedics, pediatrics, mental hygiene, and eye, ear, nose and throat. Twenty-seven counties have already made use of the service.

The committee has established a Scientific Speakers' Bureau and prints the following practical suggestions for those who want to conduct the programs:

"The Scientific Service Committee plans to institute a service for members of county medical societies which shall be conducted from the point of view of the consultant rather than of the teacher. The whole point and purpose is to bring to the general practitioner specific helps for his daily practice. For the attainment of this purpose the following suggestions should be borne in mind:

1. The paper should be non-academic. Be concrete, practical and specific in your remarks.

2. The history and bibliography of a given subject should occupy a relatively small proportion of the paper.

3. Talk to your audience as man to man. Many an excellent paper delivered in a patronizing manner has antagonized the audience and wasted the time of the essayist.

4. Remember that attention can be concentrated upon you and your subject in inverse proportion to the size of the audience. Every effort will be made by the committee to obtain appointments for speakers in larger towns where accommodations are better and audiences substantial, as well as in the smaller communities in which there is, perhaps, the greatest demand for this service. But from the point of view of personal appreciation, the essayist will do well to bring his best to the small audience.

5. Talk clearly and directly. The effective speaker before a lay audience is also the effective speaker before the scientific audience. Doctors are made of the same clay as other folks—subject to the same likes and dislikes. Of two papers equally valuable, they will prefer the one whose speaker they can hear distinctly, who is familiar enough with his subject to get away from his paper frequently, who seems equally as interested in their comments on his ideas as he is in getting his own ideas across.

6. The test, then, of the best paper for the purpose of this committee is that it is practical, that it is presented clearly and simply, that it stimulates and invites discussion. It is better to start folks thinking for themselves along a given line than to give them ready-made thoughts and arbitrary judgments."

These standards will apply to the speakers before any society. Why should it be necessary to emphasize them? The answer is that our colleges do not train their students in public speaking. Yet ease in expressing one's self in public is easy to acquire, as is demonstrated by the development of the art by uneducated and inexperienced men who study to carry out the rituals of lodges.

Making up a program for a county medical society requires considerable thought and planning. The program maker must know his fellow members, their attainments and limitations, and he must know the peculiar traits of the speakers whom he secures. Programs are often hurriedly arranged by those who know neither the audience nor the speakers. The Illinois plan insures a good speaker for every meeting, and he can adapt himself to any audience. Medical education would be greatly promoted if these suggestions were followed.

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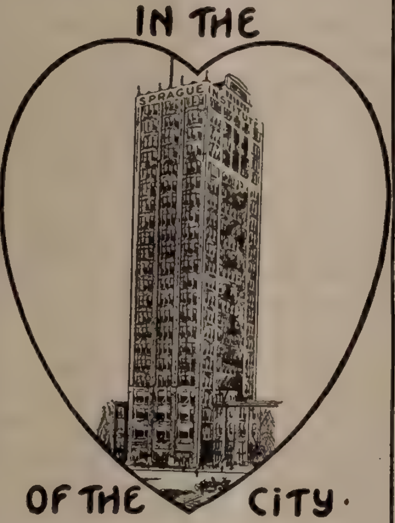

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THOMAS NELSON & SONS' two page advertisement which appeared in the December 1st, 1926, issue of this Journal, offers such an opportunity. Sign their coupon herewith and mail to them for details.

See advertisement this issue page v

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For further particulars, see their announcement on page 11. Adv.

PHYSIOTHERAPY—ENGELN X-RAY EQUIPMENT

Announcement of the Engeln X-ray Equipment appears on page iii of this issue. Write for their descriptive booklet which, in an interesting, readable style, explains the many important and valuable features of their new X-ray unit. Adv.

CAMPBELL ELECTRIC CORPORATION

Physicians interested in the purchasing of X-ray equipment will be well paid by consulting first the Campbell Electric Corporation before buying. See their advertising, page xiii. Adv.

ROBERTSON SUPER THERAPEUTIC LAMP

This lamp is creating unusual interest among physicians specializing in this line of work. Full particulars sent upon request. See advertisement, page xviii. Adv.

JUST OUT

Clinical Application of Sunlight and Artificial Radiation by Edgar Mayer, M.D., of Saranac Lake, N. Y.

The author of the book has devoted over nine years to the clinical application of various forms of light therapy in connection with most common diseases. The result of this experience is incorporated in his book, which overlooks no important phase of the subject. It is a practical work, containing many tables for ready reference. See advertising page ix. Adv.

SEDGWICK INVALID ELEVATOR

Many physicians and surgeons have displayed interest in the development of an absolutely safe and easily operated invalid elevator, not prohibitive in cost, that would eliminate stair-climbing for those patients weakened by illness or age. To this end the Sedgwick Hand Power Automatic Brake Invalid Elevator was perfected and has been unanimously endorsed by its users and their medical advisers. See advertising page x. Adv.

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THE RAPID GROWTH OF INTRAVENOUS MEDICATION

It is very evident that intravenous injection is being rapidly adapted as a regular office and bedside technic by the general practitioner. Some years ago we heard a great deal of opposition to it, although the logic of the method could hardly be disputed. This, however, is being overcome.

The opposition, to a great extent, was the result of early attempts with large volume of extemporaneous solution. Much of it was mere prejudice.

Loeser has studied some thirty odd U. S. P. and standard remedies of established therapeutic value as to their adaptability for intravenous injection. Each drug required individual study. The action of these remedies on the blood was first ascertained by animal injections. Then by clinical trials proper dilution and dosage were ascertained. Loeser has demonstrated that in order to make the technic safe and practical 5cc. to 20cc. of solution should be injected instead of large volume.

NEW YORK STATE
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PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

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SUPERNUMERARY URETERS WITH EXTRAVESICAL OPENINGS*

By H. DAWSON FURNISS, M.D., F.A.C.S., NEW YORK, N. Y.

THE fact that in my own practice I have seen 30 patients with three ureters and one with four would prove that supernumerary ureters are not uncommon, on the other hand, that in only three of these 30 cases did the ureters have extravesical openings would show that this latter anomaly is comparatively rare.

When I reported my first case in 1914, I could find records of only 50 others. In the January, 1926, issue of *Surgery, Gynecology and Obstetrics,* Kilbane brings the literature to date with one hundred cases including the two of his own and my first two.

I feel that although the history is most characteristic many of these cases are not detected, due largely to the fact that few surgeons think of this as one of the causes of urinary incontinence. A general appreciation of the fact that with such a characteristic history, this is about the only condition to produce it, would, I am sure bring to light many of these anomalies.

A brief account of the embryological development of the ureter will be helpful to illustrate and understand how this anomalous condition arises. The best account I have found in English is that of Kelly and Burnham; briefly stated it is:

The ureter arises as a process from the hind wall of the lower end of the Wolffian duct. The distal end of this bud grows into the kidney and, as the kidney ascends into the lumbar region, the ureter lengthens—at first the ureter opens into the Wolffian duct, but later it opens with the Wolffian duct into the urogenital sinus. Should the Wolffian duct or the ureter fail to shift anterior from the cloaca before the urorectal septum divides the rectum and the bladder, the ureter empties into the rectum. In the female, should there be a failure of separation of the Wolffian duct and the ureter, the ureter will be connected with Gartner's ducts and the structures developing from the Wolffian duct, namely, the urethra, and the vestibule of the vagina.

Of the several theories advanced to explain the double ureter, the most plausible is that there are two separate evaginations from the Wolffian duct. In the process of down growth the lower ureter reaches the bladder first, usually in the place where the normal ureter is found, while the upper ureter continues its downward shifting together with the Wolffian duct, mesially to the first attached ureter until it reaches the urogenital sinus. The Wolffian duct minus the ureter continues to shift to a still lower level. If the two ureters are liberated in quick succession they will be found close together in the bladder; if a long interval prevails they are further apart so that the upper ureter may be carried even to or below the internal urethral orifice.

The practical points learned from this embryological study are:

1. A double ureter may unite at any point between the bladder and kidney and empty into the bladder as a single tube.
2. When there are two separate openings into the bladder there are two complete ureters.
3. The ureter opening most caudad comes from the cephalad portion of the kidney and that from the lower pole occupies the more normal position in the bladder.
4. The ureteral opening, when in the urethra, is always on the floor and never on the roof or lateral walls.
5. When the ureteral opening is in the vagina it is on the anterior wall and never on the lateral wall.
6. The ureter emptying lowermost crosses and lies to the inner side and behind the more normally situated ureter.
7. In the female the ureter may empty into the vagina, the vestibule of the vagina, the fallopian tubes or uterus, or Gartner's duct. In a number of non-viable fetuses openings into the rectum, intestines, and allantoic cavities have been discovered. In the reported cases the openings have been:

First, in the urethra. In two of these the opening was through the sphincter and there was fairly good urinary control. In one of these two the incontinence did not appear until after the third labor. In still another, the continence was good even though the opening was anterior to the sphincter—this case was discovered as a post-mortem finding.

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* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 31, 1926.

Second, into the vestibule. Most of the recorded cases have had an opening in this location and it has usually been just below the eternal urethral meatus and slightly lateral. It has usually been described as of slit form.

Third, into the vagina. The opening in most of the cases has been below the urethra and slightly lateral.

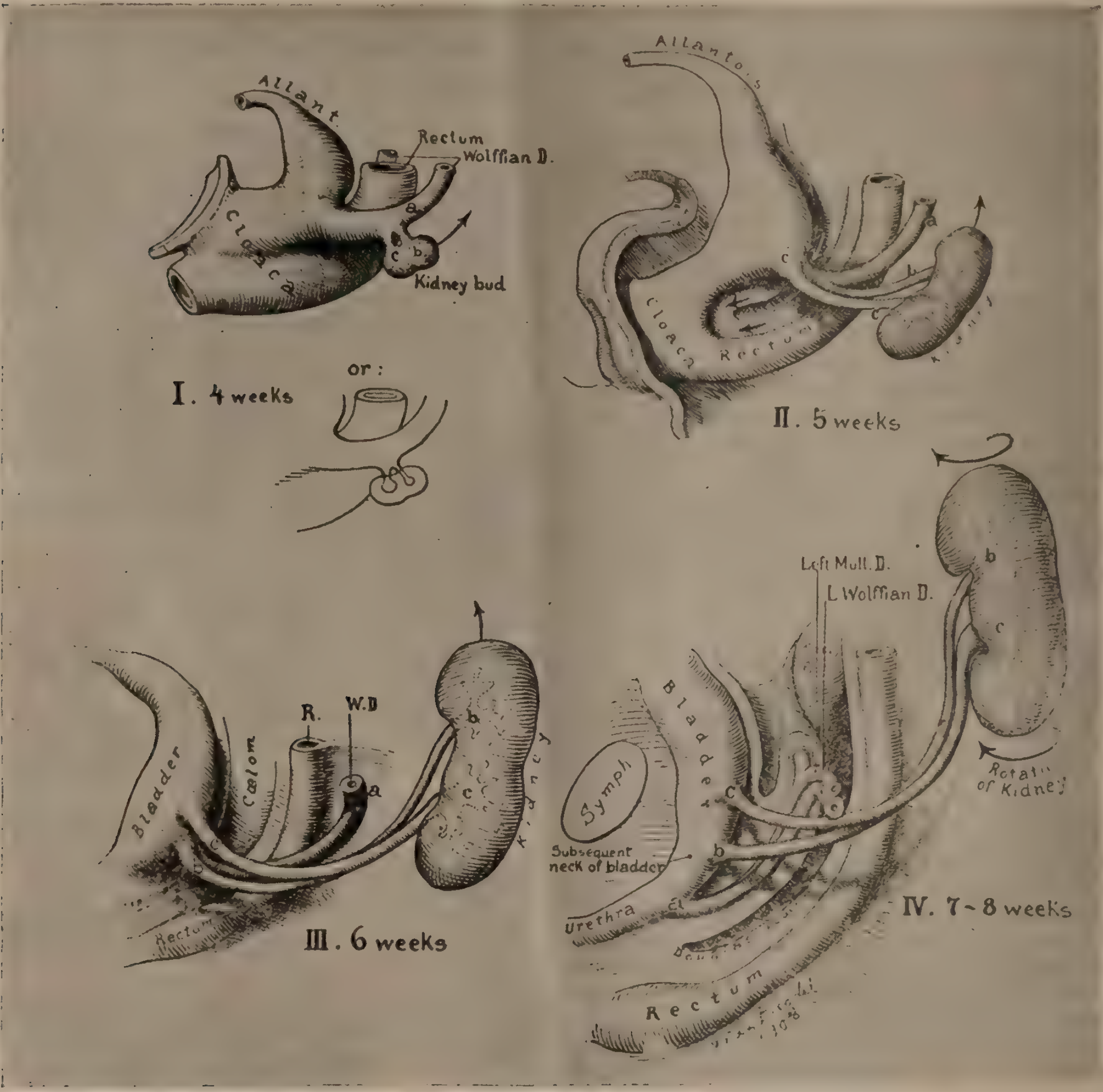


Fig. 1.—Illustrating the formation of a double ureter. (After Kelly and Burnham)

No matter where the opening has been, in a good majority of cases the lower end of the ureter has been dilated, either as a small sac, or as a fusiform swelling. In many instances this dilatation extended to the kidney which was found to be atrophic in the part drained by the supernumerary ureter. Probably further study will show that with accessory extravesical openings the upper pole will be found quite rudimentary. This rudimentary development, however, does not always hold true in the cases of double ureters where the opening is intraviscal as shown in one operated case by Hugh Young; one operated case and one post-mortem finding seen by myself, in all of which, the kidney tissue drained by the two ureters was fairly evenly divided. In the numerous pyelographs that have been made of double ureters, the size of the pelvis would indicate the same.

History.—The usual history is one of constant leakage from birth, in addition to normal voiding. This leakage may vary during the twenty-four hours, as influenced by exercise, posture, etc. This is easily understood when it is remembered that often the orifice of the ureter may be strictured, and the ureter and its pelvis dilated. When in the erect position the hydrostatic pressure is sufficient to cause a relatively rapid emptying of the ureter and pelvis; which will later be gradually refilled. During the filling time the patient may be dry. The amount of the abnormal drainage is dependent also upon the amount and the function of the renal tissue connected with the anomolous ureter. Two of the reported cases with the ureters emptying into the urethra through the sphincter were not troubled until after labor, which evidently caused a sphincter weakness, that allowed the urine to flow from urethra rather than back into the bladder.

Such a history as just related is so characteristic that one should cling to the idea of an extravesical ureteral opening until it is located or some other cause found to account for the incontinence.

Examination.—Inspection of the vulva, vagina, and urethra may locate the opening if the amount of leakage is great. Such simple inspection is rarely successful. The better method is to give the patient indigo-carmine or phenol sulphonepthalein, intravenously, to stain the urine. If the function of the kidney drained by the aberrant ureter is deficient, or if there is marked hydro-nephrosis, or hydro-ureter, sufficient dye will not be excreted to show. When dye is excreted, but the opening cannot be found, the vestibule, vagina, and urethra should be tamponed for a few minutes. The stained spot will be a pointer to the opening.

Failing in the above, radiographs of the kidney, if sufficiently clear, may show some distortion, or irregularity, that would indicate the side from which the aberrant ureter comes. An indirect way of determining this when the amount of kidney substance attached to the involved ureter is sufficient, is to make a pyelogram, by injection through the ureter that opens into the bladder. The absence of the upper calyces would be most suggestive. In my third case this was of no help as the normally situated ureter drained a practically normal kidney and gave a normal pyelograin. In one of his patients, Killian was able to show the pelvic deficiency very well.

A few instances are reported of finding the ureteric opening in the urethra by endoscopy. This is most difficult, and a fortunate outcome of such an examination is largely a matter of luck.

A method of differentiating bladder and ureteral leakage is to fill the bladder with indigo-carmine solution, and then inject phenol-ulphonephthalein intravenously. If the leakage is from the bladder the staining will be blue. If from an extra-vesical ureter the color of the phthalein-yellowish in acid urine, red in alkaline, providing there is a sufficient amount of functionating kidney. (The phthalein excreted into the bladder will be overshadowed by the darker indigo-carmine).

Should all of these methods fail, I would consider an exploratory operation advisable. This may be either of the kidney, or kidneys, or abdomen.

If the leakage is small, and function poor, it would indicate that the aberrant ureter drained only a small amount of kidney tissue. In such instances the renal exploration is preferable to the abdominal, for in it resection is usually possible. A history of pain in one lumbar region would point to the corresponding side as the one probably involved. It must be remembered that in twenty-five per cent of the cases reported both sides have been involved. Without any localized signs or symptoms, it is an even chance as to the side on which the trouble will be located. Should the first indicision fail to discover it, exploration on the other side is warranted. The fact that 25 per cent of the cases are bilaterally involved, would not justify the exploration of the second side after finding and treating the condition on the first.

With the secretion from the normal kidney large, the function good, no pus in the urine that is collected by having the patient sit over a vessel for a time, and the possibility that a uretero-vesical anastomosis may be accomplished, then I would say that the abdominal exploration for diagnosis was the better procedure, as an ureteral anastomosis could then be done.

It is not only necessary to make a diagnosis of aberrant extra-vesical ureter, but we must know

1. What amount of kidney tissue is drained
2. The function of same.
3. If there is infection
4. If there is ureter stricture, hydro-ureter and hydro-nephrosis.

The first may be determined indirectly by a pyelogram of the lower portion of the kidney made by injecting the normal ureter; and directly when the abnormal ureter can be catherized, injected, and radiographed.

The function by injection of phenolsulphonephthalein and collection by ureter catheter, or having the patient drain the excretion into a vessel.

The presence of infection by examination of the collected excretion—if it cannot be collected by catheter, then the vagina must be thoroughly cleansed before collecting the specimen in a vessel.

The fourth condition, namely stricture, hydro-ureter and hydro-nephrosis by ureter catheterization, and at times by a pyelo-ureterogram. This is not always possible as the orifice of the ureter may not be discoverable, or possible to be catheterized.

Treatment.—The reported cases have been treated in various ways:

1. Ligation of ureter; through vagina; just above the bladder or below the kidney.
2. Uretero-vesical anastomosis; vaginal; abdominal; both intra and extraperitoneally.
3. Formation of openings between ureter and bladder, by plastic operation through the vagina and after supra-pubic cystotomy. Also cauterization of the dilated ureter through a cystoscope.
4. Resection of the kidney.
5. Nephrectomy.

Ligation of the ureter has been reported as successful in five instances. Personally, I doubt the advisability of it in any instance as the problems are better handled by other methods.

Cases suitable for uretero-vesical anastomosis: These show a goodly amount of renal tissue drained by the accessory ureter; no infection; good function, and absence of hydro-ureter and hydro-nephrosis. The choice of the vaginal or abdominal route for this implantation is dependent on the condition of the lower end of the ureter. Should it be easy to dissect out and not dilated, implantation per vaginam is a simpler and safer procedure than by abdomen. Should this be a failure, the result is not serious and an abdominal implantation may be done at a later date. I believe that the extraperitoneal operation for the abdominal implantation is a better and safer procedure than the intraperitoneal. In some instances of good function but of mild hydro-ureter and hydro-nephrosis, and slight infection, suitable treatment may correct the conditions sufficiently to put them in this class.

A few cases will require nephrectomy if the function of both parts of the kidney is low, or if the blood supply of the kidney makes resection of the upper pole impossible, and uretero-vesical anastomosis is undesirable.

A primarily satisfactory uretero-vesical anastomosis may later prove very disappointing. The ureter may become strictured, infection take place, and distention of the pelvis and ureter occur—conditions that will destroy the kidney function and possibly cause a troublesome cystitis.

Hunner was able to connect the aberrant ureter to the bladder by first inserting a minute rubber bag in the ureter distending this and cauterizing the tissue between the bladder and ureter through a cystoscope. In my third case such a connection could have been established by fulguration. This method often has the disadvantage of draining infected fluid into the bladder, with the probable development of a chronic cystitis.

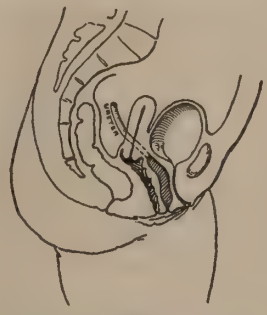


Fig 2

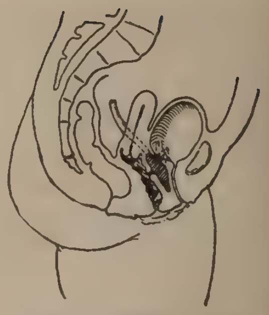


Fig 3

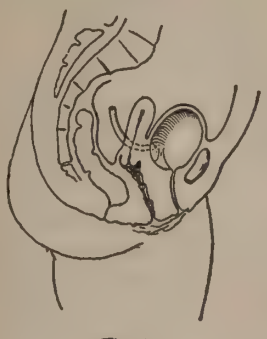


Fig 4

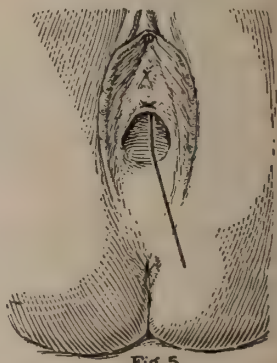


Fig 5

Case I.

Fig. 2. The dilated distal end of the supernumerary ureter shown as a fusiform sac, with a minute orifice below the urethra.

Fig. 3. The result of the first operation—an opening between the dilated lower end of the supernumerary ureter and the bladder; and an opening between the ureter and the vagina, the result of failure of union of the vaginal wound.

Fig. 4. The end result—the supernumerary ureter implanted in the bladder.

Fig. 5. The opening of the supernumerary ureter is shown below the ureter. In life this was not so large nor so distinct. The line shows the incision made through the perineum to gain access to the base of the bladder.

After a study of my own cases and those in the literature, I feel the problem narrows itself down to three methods of treatment. First: Uretero-vesical anastomosis if there is no infection and the amount of renal tissue that may be saved is worth while. Second: Resection of the kidney. Most cases will fall in this class. The operation is usually easy and the results most satisfactory. Third: An occasional case may require nephrectomy because of an anomalous blood supply that makes resection impractical, or severe functional damage to both potions of the kidney.

Case 1.—A girl of nineteen who came on account of incessant dribbling since birth. She voided as other normal girls. This history pointed clearly to some congenital anomaly, one in which urine was discharged distal to the urethra. With this in mind, she was cystoscoped after intravenous injection of indigo-carmine. The dye was eliminated promptly through normally situated right and left ureters. The vagina and the vestibule were packed with cotton. After a wait of ten minutes it was found that the cotton just below the urethral meatus was stained. A careful search revealed a minute opening, into which a ureteral catheter could be introduced four inches. Vaginal palpation showed this to run to the left side.

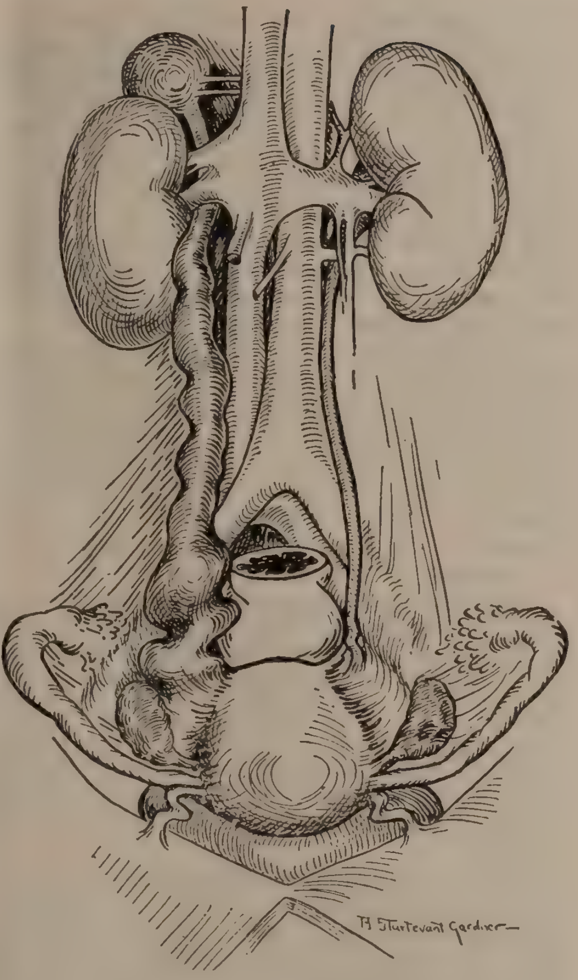
Operation.—After catheterizing the ureter, an attempt was made to dissect it out, and turn it into the bladder. A thin fusiform sac intimately adherent was found. This was opened accidentally. After this an incision was made into the bladder through the opposite wall of the sac and the vesical and ureteral mucosae united with catgut. The distal end of the ureter was closed; the accidental wound sutured, and the vagina brought over it with chromic catgut. A retention catheter was placed in the bladder.

Seven days after operation the old ureteral leakage returned. After three weeks the ureter was exposed through the vagina, and it was then found to be about twice the normal thickness on the kidney side of the fusiform sac. After mobilizing ¾ of an inch of the ureter, a sound was placed in the bladder, made to depress the bladder just in front of the ureter. A hole was cut at this point, a suture placed through the ureter and tied to the sound. On withdrawing the sound the ureter was pulled into the bladder, where it was sutured with chromic catgut and the vaginal wound closed.

The incontinence was cured. After operation the new opening was shown to function by the appearance of indigo-carmine elimination, but after six months this ceased. Attempts to catheterize this ureter were vain.

Case 2.—A woman of 38 with a history of incessant dribbling and normal micturition. Cystoscopy showed two normally situated ureters, both eliminating indigo-carmine promptly, but an opening of an extravesical ureter could not be found. Cotton pledgets were placed after indigo-carmine administration to detect any extravesical discharge but none was found. On vaginal examination the urethra appeared more full and prominent than usual. A metal catheter was placed in the bladder and the urethra again palpated without detecting any swelling beneath.

The patient had a fibroid uterus the size of a grape fruit, and because of three weekly profuse bleeding, I did a supra-vaginal hysterectomy. On the right side of the pelvis was found a soft elastic swelling which was extraperitoneal, about three-quarters of an inch in diameter, running from below upwards over the brim of the pelvis. The history, together with the knowledge of two normally placed ureters, each promptly eliminating indigo-carmine, gave the clue to the diagnosis. Palpation of the right kidney showed a mass the size of a hickory nut on the superior pole.



Case 2.

Fig. 6. The enlarged supernumerary ureter is shown draining the small upper portion of the kidney. This portion of the kidney had its own blood supply, and was separated from the larger portion without bleeding. The supernumerary ureter was greatly dilated. The two ureters were closely attached, but were easily dissected free.

Not trusting the efficacy of simple ligation of the ureter, an upper right rectus incision was made into the peritoneal cavity. An incision was made through the peritoneum on the outer side of the colon which, when displaced inwards, exposed the kidney. The dilated ureter was in front of the other ureter and closely connected. At the pelvic brim the dilated ureter so overlay the other that it was not to be seen. The ureter 3 inches from the pelvis was freed, double clamped and cut. The lower end was ligated with chromic catgut and dropped. The renal end was freed up to the vessels going to the lower part of the kidney and then passed above them. It normally ran posteriorly to the vessels. The kidney was normal in size with the part attached to the extra ureter perched on top. Two small arteries ran to it—the veins could not be well shown. This part of the kidney was represented by a sack ¾ of an inch in diameter, with a small layer of kidney tissue attached to the kidney, the whole being enclosed in a fibrous capsule. It was resected without difficulty and without bleeding.

A stab wound was made in the flank, through which a cigarette drain was placed, the posterior peritoneal incision, and the abdominal wound were closed. There was only slight bloody drainage. The drain was removed on the second day. Uneventful convalescence with complete relief of urinary drainage. On two subsequent examinations the opening of the ureter could not be found.

Case 3.—This patient was seen first in 1915 when 16 years old. Her mother stated that she had always dribbled urine, as well as voiding normally. This leakage seemed to be greater in the morning than later in the day. As she grew older it was noticed that there was less after exercising and dancing than at other times. There would be periods of one to two hours during the day when she would be dry.

Pus in small quantities has been found in the urine at all times. On only one occasion, blood and then only a few cells. In October, 1915, she had left lumbar pain for a brief period. At this time the only positive finding was a mild trigonitis. She was requested to return for further examination, after having radiographs, but disappeared until April 10, 1925.

The condition had persisted and had been worse since a very difficult high forceps delivery July, 1924. This dribbling is not troublesome when in bed, is worse when standing, and is not influenced by sneezing or coughing.

Examination.—Both ureters appear normal. and excrete indigo-carmine equally. Just within the urethral orifice on the right was found a small cystic mass, surrounded by moderate bullous edema. An extra-vesical ureter was suspected, but could not be found. Radiographs were made which showed the left kidney enlarged and lobulated. Later a pyelogram was made after injecting the left ureter. This was done with the idea that if there were two ureters from this kidney an abnormality of the pelvis would be detected—but the pelvis appeared normal.

Operation, May 12, 1925.—Thinking that the cystic mass noted at the vesical outlet might be a cause of the trouble, a supra-pubic cystotomy was done with the intention of removing it. This mass appeared in the bladder the size of a pea. In dissecting it out an incision was made into it—there followed the escape of fully three ounces of fluid. A probe could be passed its length (eight inches) up the left side towards the kidney. This corroborated my first suspicion of an aberrant ureter. The opening into the ureter was enlarged, and the mucosa of the ureter and that of the bladder united. A rubber drain was inserted into the ureter, and the bladder drained suprapubically. Both drains removed on the seventh day.

Following this operation she at times had leakage below. She was seemingly not benefited by the operation. On June 8, 1925, the left kidney was exposed. On its upper pole was a flabby mass the size of an English walnut with a ureter the size of a lead pencil running behind the ureter of the normal size kidney. There was no direct blood supply to the kidney. The supernumerary portion was easily separated from the kidney; the bleeding was slight, only one small artery needed ligating. The moderate oozing was controlled by a few mattress sutures of chromic catgut. Cigarette wound drainage for 48 hours. Uneventful convalescence.

The leakage still persists. It does not come from the bladder, as indigo-carmine solution injected into it does not escape. The leakage is a colorless fluid containing a small amount of pus and comes via the urethra. Phenolphthalein injected intravenously is not detectable in this. From a study of the facts, I feel sure that she has a poorly functioning amunt of renal tissue on the right side, drained by a ureter that opens somewhere in the urethra.

In a review of the history and the operative findings, the patient's statement that the leakage is worse in the morning, and is less after exercise is understandable. A relatively large amount of urine would be collected in the dilated ureter and pelvis, that would be discharged rather rapidly when she was erect or exercising. Following this the filling would be slow because of the small amount of renal tissue.

The following is the pathological report of Case No. 3, by O. S. Hillman.

Gross Examination.—The specimen consists of a small, shrunken kidney, measuring 5.5x4.5 cm., with 5cm. of the ureter attacked.

The kidney is roughly oval in contour, with blunt poles and a coarsely lobulated and somewhat fissured surface. Toward one pole on the hilus aspect, there is a cavity into which a probe can be passed up to the opposite pole. This would seem to represent a dilation of the pelvis with compression atrophy of the parenchyma (?). The ureter is patent throughout. At the entrance to the ureter, the pelvic tissue is heaped up, and granular in appearance, probably he result of an old inflammatory process. There is about 1.5 cm. of cortex and subtending kidney tissue in the neighborhood of the uretero-pelvic junction. No stones or abscesses apparent.

Microscopic Examination. — Sections were taken through the last mentioned thick portion of the specimen, and also through the cystic end.

The former show well-defined kidney parenchyma, with tubules, glomeruli, and blood vessels, etc. The pathological changes are of a degenerative and chronic inflammatory character, as evidenced by the presence of dilated tubules, hyaline casts, tubular edema, a few sclerosed glomeruli, foci of round cell infiltration and interstitial fibrosis, especially in the cortex, where strands of connective tissue extend from the capsule inward; the latter is thickened in places. The blood vessels show sclerotic changes.

The sections through the cystic end show atrophy of the parenchyma and a more marked degree of inflammatory degeneration.

In the region of the pelvis there is apparent evidence of an old standing chronic pyelitis.

No indication of tuberculosis can be found.

Remarks.—A consideration of the gross and microscopic findings suggests that the pyelitis originated the degenerative changes observed in the parenchyma. The probability of a direct ascending infection might be considered in this connection.

DISEASES OF THE LIVER AND BILIARY PASSAGES—THE CLINICAL APPLICATION OF SOME RECENT INVESTIGATIONS*

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DURING the last few years important facts have been added to our knowledge of the physiology of the liver and biliary passages in health and disease. It is my purpose in this paper to indicate how certain of these facts may be, and have been, applied with advantage at the bedside. References to much fundamental research must be omitted from such a review only because it is not yet possible to assess the clinical value of these studies. The interposition of the liver between the intestines and the general circulation calls immediate attention to the physiologic importance of this organ. A formidable hindrance to a study of the details of hepatic deficiency is the large reserve of the organ. A practical method of studying the function of any organ is to estimate the effect of removing part of it. Mann and Bollman have shown that it is possible to remove at one time, without any obvious effect on the animal, as much as two-thirds of the organ.

Functions of the Liver

The functional unit of the liver is the parenchymal cell, commonly known as the polygonal cell or, better, the hepatic cell. Our present conception of a hepatic cell is that it is a complex workshop, housing many activities. Sugar is received and converted into glycogen; the glycogen is reconverted into sugar and is released into the general circulation; protein derivatives arriving by the portal circulation are detoxicated; bilirubin is separated from the blood and excreted in the bile; the metabolism of fat, cholesterin and iron, or compounds of them, is probably influenced by this workshop; fibrinogen is manufactured, and the heat regulation of the body is in part dependent on the hepatic integrity. It seems probable that in health the various activities of the hepatic cell are coördinated and interdependent, each activity receiving help from, and in its turn rendering assistance to, all other activities. In disease, however, there is abundant clinical evidence that the suspension of a single activity, for example, bile formation, is not accompanied by a corresponding degree of diminution in other functions, such as the regulation of the blood-sugar level. The measurement of any single hepatic function does not, therefore, give a comprehensive, or even quantitative, idea of its functional activities. These acknowledged difficulties have not dismayed investigators, and contributions to our knowledge of the healthy and diseased liver are being made by internists, surgeons, pathologic anatomists, biochemists and physicists. Every real advance depends on a fundamental investigation and every fundamental investigation clears the way to a real advance.

Bile

Bile pigment is probably one of the least important constituents of bile, but we are attracted to a study of it because of its color and because, in a sense, we know more about it than we do of the bile salts, cholesterol or other constituents of bile. We are interested in the rôle of bile salts at present, and Aldrich and Greene are working on a method of measuring the quantity of bile salts in the blood and other body fluids. They believe they have a method with but a small range of error and sufficiently accurate to give significant relative values.

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*Read before the Medical Society of the State of New York, New York City, March 30, 1926.

Source of Bile Pigment.—Our chief recent interest in bile pigment is due to the discovery by the Dutch physiologist, van den Bergh, that the very simple diazo reagent produced a characteristic color in solutions containing bile pigment, which made it possible to estimate the quantity of pigment in a solution by comparing the depth of color with standards. It is generally agreed that the source of bile pigment is the broken-down molecule of hemoglobin, that the pigment is an iron-free hematin derivative. It is further assumed that the pigment is actually manufactured by reticulo-endothelial cells, which are collected in great abundance in the spleen and bone marrow. Bile pigment is normally present in the serum of man in an appreciable amount. That it is actually manufactured in the spleen and bone marrow has been conclusively shown by Mann, Sheard, Bollman and Baldes. Sheard, as a physicist, has brought to this investigation the spectrophotometer, which enables us not only to identify bilirubin as such, but also to measure it in smaller quantities than had hitherto been possible by any colorimetric method. These investigators have taken the blood from the vessels going to the spleen and to the bone marrow, and have contrasted it with blood coming from these areas and have shown that the blood coming away has an appreciably greater content of bilirubin. Mann, Bollman and Magath had previously shown that when the liver is completely removed from the dog the animal becomes jaundiced during its period of survival, thus indicating that pigment was formed outside the liver. It may be assumed, therefore, that with regard to pigment the liver is chiefly, although not exclusively, an excretory organ. Some pigment is presumably manufactured by the reticulo-endothelial cells of the liver itself. Our chief interest in the van den Bergh reaction, from a clinical standpoint, is its variation under different physiologic and pathologic conditions. In the blood going to the liver, color can be produced, not simply by the addition of the reagent to the serum, but by the addition of something else, namely alcohol, to bring up the color. In this respect it differs from bile itself, in which the color is immediately produced on the addition of the reagent. This suggests that the pigment molecule in its progress through the parenchymal cell of the liver is altered; perhaps it loses something, presumably protein. Now if this molecule is reabsorbed into the blood after it has passed through a hepatic cell, it then gives a direct reaction; that is, the color comes up at once on the addition of the reagent to the blood serum and without the necessity of adding alcohol. We have, therefore, means of telling whether the pigment in the circulating blood represents reabsorbed pigment or what may be termed bile pigment proper.

Pathologic significance of bilirubinemia.—Excessive pigment in the circulating serum can occur for either of two reasons. First, pigment may be produced in excess in the spleen and bone marrow so that it may exceed the ability of the liver to remove it from the circulation. In this case, the quantity is increased but the reaction is indirect. On the other hand, it may be due to obstruction in the extrahepatic biliary passages, which causes bile to dam back and bile pigment to overflow into the capillary bed of the liver and be reabsorbed into the general circulation. The van den Bergh test may assist in differentiating between hemolytic and obstructive jaundice. When an excessive quantity of pigment is produced an indirect reaction is found; this supports other clinical evidence of hemolytic icterus, especially splenomegaly, increased fragility of erythrocytes, and the absence of pruritus. In cases of obstructive jaundice the test is of very definite value because it enables us to distinguish mild grades of obstruction. This is because the plasma may show an excess of pigment giving a direct reaction without there being enough pigment to produce any yellow tint in the sclerotics or skin. It is also a fact that an increased quantity of pigment is discernible in the plasma for an appreciable time before it appears in the sclerotics or other tissues, and conversely, the pigment content of the plasma returns to normal appreciably sooner than the color will disappear from the sclerotics or other tissues. In actual practice, the van den Bergh method of measuring the quantity of pigment in the circulating blood is much more precise than any known method of contrasting variations in the tint of the skin or sclerotics from day to day. The surgeon is thus able, when contemplating operation, to estimate from day to day the quantity of pigment due to obstruction and to avoid operation in the presence of that rising curve of bile in the blood that presages postoperative hemorrhage. In event of a falling curve he will delay operation because the risk of hemorrhage declines with the curve, and he is able to select the optimal time for operation in each individual case.

The van den Bergh test enables one not only to estimate the circulating pigment quantitatively but to distinguish qualitative differences; in this respect it is superior to the icteric index. Occasionally, a yellow color is imparted to the plasma by vegetable pigments, especially carotin.

These pigments interfere with accurate estimation of the icteric index, but do not interfere with the van den Bergh readings.

An interesting and practical application of the van den Bergh test has been made in the study of a few cases of pruritus. Dermatologists have for a long time suspected metabolic disorders as a cause of certain cases of pruritus. French investigators[3], especially, have written in support of the theory of dissociated jaundice. This conception of dissociated jaundice presupposes a selective difference in the retention of bile constituents in the tissues; thus bile salts may be retained while pigment is excreted, and to the retained bile salts have been accorded the property of inducing pruritus, bradycardia, decreased coagulation of the blood, and so forth. Stimulated by this hypothesis, we have studied a few cases of persistent and troublesome pruritus without jaundice and have found that in certain of them the plasma showed a normal quantity of bile pigment but that the pigment present gave a direct reaction. In these cases also the liver shows decreased ability to excrete phenoltetrachlorphthalein. We have not been able positively to ascribe the itching to an excess of bile salts, but the finding of a direct van den Bergh reaction with a normal quantity of bilirubin, supported by dye retention, associates the pruritus definitely with a disturbance of hepatic function.

Test of Hepatic Function by Dyes

Several years ago Abel and Rowntree, while studying the pharmacologic action of phenolphthalein, showed that this substance was excreted in the urine and in the stools. This led to experimenting with variations in the phenolphthalein molecule, which resulted in the discovery that the substance phenolsulphonephthalein was excreted quantitatively by the kidneys, and that the substance phenoltetrachlorphthalein was excreted quantitatively in bile. These dyes consequently were used by Rowntree as tests of renal and hepatic functions, respectively.[13, 14] More recently, Graham and his coworkers have substituted for the chlorin radical, other halogens, iodin and bromin, and have found that these combinations render the bile opaque to the roentgen ray.

Use is made of the fact that phenoltetrachlorphthalein is excreted quantitatively in the bile to estimate the function of the liver. The method of its use has been simplified by Rosenthal. The procedure is to inject a measured amount of this innocuous dye (bromsulphthalein) into the vein of one arm, to remove samples of blood from the other arm at intervals of fifteen and sixty minutes, and to see how much dye remains in the general circulation. If the liver maintains its ability to excrete dye, it disappears very rapidly from the blood. If this function is interfered with, there is a retention of dye in the blood. The method is especially useful when there is no obstructive jaundice. In obstructive jaundice there is, of course, interference with the flow of bile and, consequently, interference with the flow of dye.

Cholecystography

The present method of cholecystography is founded on this selective excretion by the liver of compounds of phenolphthalein. The factors which enter into the interpretation of the results of cholecystography are indicated in Figure 1.

The diagram illustrates the course of the opaque phthalein compound when administered orally, in which case it reaches the liver by way of the portal circulation. If the drug is administered intravenously it reaches the liver by way of the general circulation, that is, through the hepatic artery. The intravenous method is theoretically preferable since absorption is assured. In my experience intravenous injections of available preparations have not been free from the objection that painful local phlebitis may be set up at the point of injection, and that a severe constitutional reaction may occasionally alarm the patient.

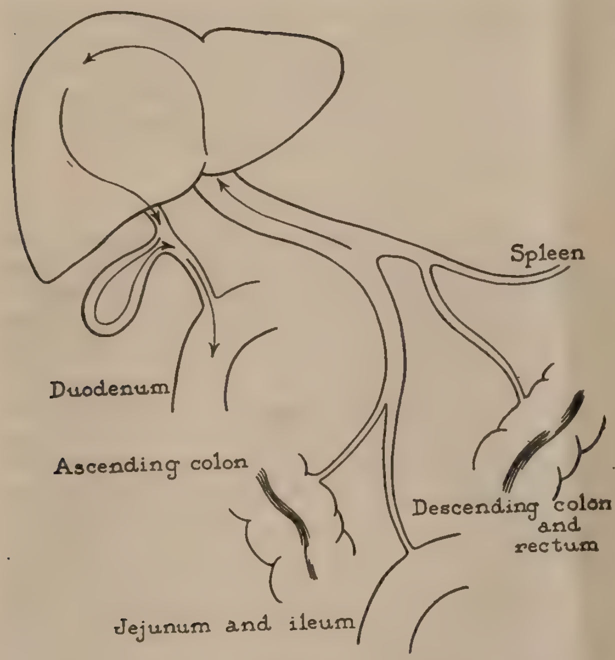
Refinements in the use of the method may be expected to follow: experiments to produce the greatest concentration of the substance in the bile, and the careful collection of data with respect to the two important facts: (1) whether a diseased gallbladder may sometimes fill with the opaque bile, and (2) whether a gallbladder which fails to fill is always seriously enough diseased to warrant its surgical removal.

Undoubtedly, the most important limitation to its clinical use is the fact that in obstructive jaundice, the opaque dye is not excreted. The method at present, therefore, can give us no reliable information with respect to the condition of the gallbladder when jaundice is present.

Carman has recently summarized our experience of cholecystography in approximately 2,000 patients, of whom 737 were operated on. He estimated the percentage of error in diagnosis by this means as 23.6 per cent. This report is, I believe, very conservative. In approximately two-thirds of the 174 errors the excised gallbladder showed a mild degree of disease. Previous to the use of opaque dyes in roentgenologic studies of the gallbladder, negative findings had very little value. The present method has increased the value of negative findings from less than 20 per cent to more than 75 per cent.

Experimental Hepatectomy

Mann and his coworkers have been able, by a special technic, to remove the liver completely from a dog and have the animal survive for



FACTORS IN CHOLECYSTOGRAPHY (Oral Method)

1. Dye.
    (a) Absence of toxicity.
    (b) Opacity to X-ray.
2. Absorption.
3. Excretion.
    (a) Selective.
    (b) Interference.
    Jaundice.
    Hepatic disease.
4. Access to gallbladder.
    Patency of ducts—hepatic and cystic.
5. Concentrating action of gallbladder.
6. Interpretation.
    (a) Does a diseased gallbladder sometimes fill.
    (b) Does failure to fill indicate a degree of disease which warrants surgical removal.

FIG. I. FACTORS IN CHOLECYSTOGRAPHY (ORAL METHOD)

several hours after this procedure. A striking effect of the removal of the liver is the progressive decline in the sugar content of the circulating blood. The period of survival has been increased by the intravenous use of glucose solutions. This gives us a practical hint in the management of cases in which gross disease of the liver and gross interference with function are suspected. If we wish to protect the organism against dysfunction of the liver, we can with advantage make use of a high sugar content in the diet and use glucose solutions intravenously. Mann's experiments also show that when the liver is removed, the formation of urea from the waste products of nitrogen metabolism ceases. These waste products are toxic and are normally converted into the nontoxic urea for excretion in the urine. It is, therefore, fair to assume that when the liver is seriously damaged, the organism is less able to metabolize protein, which should be excluded from, or limited in, the diet. It should perhaps be mentioned that Mann's dehepatized dogs finally die in a state of shock, which is probably not a hypoglycemic state; in clinical practice in the most advanced cases of injury or damage to the liver, it is rare to find the blood sugar depleted.

ANATOMIC STUDIES

McIndoe and Counseller have injected the biliary and vascular systems of livers removed at necropsy, and have then corroded the remaining hepatic tissue so as to reveal graphically the variations from normal which disease produces in these systems. In obstructive jaundice of short duration, the dilatation of the intrahepatic bile passages is enormous, producing in fact a hydrohepatosis analogous to hydronephrosis resulting from obstruction of the urinary passages. This phenomenon indicates the necessity for early relief of obstruction. They have further shown that when obstruction due to stone in the common duct or traumatic stricture persists for longer than about three weeks, extreme fibrosis of the biliary passages occurs, leading to permanent dysfunction of the liver and pointing again to the necessity of early relief of obstructive jaundice. They have been able to demonstrate graphically a tremendous diminution in the vascular system in the presence of cirrhosis.

ASCITES

One of the most distressing clinical effects of cirrhosis is the accumulation of ascitic fluid in the abdomen. The operative removal of ascitic fluid is seldom perfectly satisfactory. It is accompanied by danger of infection and is annoying to the patient. The establishment of collateral circulation by surgical means in the attempt to assist nature in the removal of the ascitic fluid is also unsatisfactory. It is encouraging, therefore, to have at our disposal other therapeutic means of getting rid of ascitic accumulations. Rowntree, Keith and Barrier recently reported the results of the use of novasurol in the treatment of ascites due to hepatic disease in a series of twenty cases. Merbaphen (novasurol) is a drug introduced by Zieler in 1917 for the treatment of syphilis, and contains

33.9 per cent mercury. Keith believes that diuresis from the use of the drug is enhanced by the simultaneous administration of ammonium chlorid or nitrate and by a low intake of salt in the food (6).

TREATMENT OF HEPATIC DYSFUNCTION

Walters has previously reported the lowering of the operative mortality which has resulted at the Mayo Clinic from the routine use of calcium chlorid intravenously in the preparation of jaundiced patients. The details of our preparation of patients with hepatic dysfunction may be summarized as follows:

To prevent postoperative hemorrhage: (1) calcium chloride intravenously, 5 c.c. of a 10 per cent solution daily for three days; (2) a study of blood coagulation (method of Lee and White); (3) transfusion of blood if prolonged coagulation time perists.

To anticipate failure of hepatic function: (1) high carbohydrate content of food; (2) glucose solutions; proctoclysis, 2 per cent, 1,500 c.c. daily; intravenous injection, 10 per cent in marked prostration and dehydration.

To fill up tissue reservoirs; to ensure adequate renal function, and to compensate for possible loss of fluid following necessary drainage of bile: the use of from 3 to 4 liters of fluid daily.

The methods of study here outlined are additions to, and not substitutes for, the subjective history, physical examination and routine observation of urine and stools. Each study reviewed has, however, contributed something of value in the diagnosis and management of diseases of the liver and biliary passages.

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THE AGE OF PUBLIC HEALTH*

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I HAVE chosen as a text for the somewhat discursive observations which follow a remark once made to me by Dr. Herman M. Biggs to the effect that sound public health work always progresses. Dr. Biggs did not mean by that statement that there were no periods in the progress in which the work seemed to pause or even lose ground, but that the tendency of a line representing results accomplished, even though broken here and there, is always upward.

Apart from mechanical inventions, discoveries in the field of physics and their application to the satisfaction of human needs, nothing is more characteristic of the age in which we are living than the widespread interest in public health, and the recognition of its vital importance to the present and future welfare of the human race.

The story of the beginning of modern public health, its astonishing growth and development, and the triumphs that have followed in its wake have been so frequently set forth and are so generally known to you that I need not recount them at this time, beyond calling attention to a few striking or rather dramatic accomplishments in this field. Through the work of the great foundations, notably the International Health Board, cooperating with and aided by advice and financial support from local and federal health agencies, we have seen within the last comparatively few years vast regions of the earth, widely separated, freed from the ravages of the endemic diseases which formerly made them almost unfit for human habitation—much less for human progress—incalculable numbers of lives saved, commerce and industry introduced or restored, and a sense of security and contentment replacing dread, torpor and despair. In our own country, notably in some parts of the South, dysentery, typhoid fever, malaria and hook worm are rapidly yielding to the sound application of the principles of preventive medicine. Here, too, thousands of lives are being saved and equally, if not more important, those afflicted with parasitic disease, and thereby reduced to a mental and physical condition which made them human beings in name only, have been restored to a life of hope and usefulness, and their children and those that are still to be born relieved of the curse that afflicted their forebears.

Sensational results quite regularly follow intelligent and well organized public health work in virgin fields which cannot be looked for in areas in which the fundamental principles of public health have been carried on, however imperfectly, for many years. It is far more difficult to arouse the enthusiasm and active cooperation of a population otherwise intelligent from which the ever-present dread of illness and death has long since been removed or mitigated. One has only to instance the case of smallpox and compare the present difficulty of inducing people to receive immunization against it, except when it is actually present among them, with the situation of bygone days, when smallpox was a world scourge, and it was hardly possible to provide immunization for the multitude that begged for it. Today this false sense of security, in the face of warnings from health authorities, has rendered this country, as a whole, the most poorly vaccinated of any civilized nation on earth, with the possible exception of Mexico, from which reports are difficult to obtain, and whence from time to time smallpox of the most virulent type invades our bordering states and is followed by death and disfigurement among the largely unprotected inhabitants. Again, it is usually far easier to produce noteworthy results in the control of endemic disease when it involves measures which have to do with environmental conditions,—drainage, water supply and disposal of excreta,—than when it involves the inconvenience and even dread, however unfounded, which accompanies the conferring of individual immunity; and, furthermore, it is far less difficult to induce the first thousand of a population to cooperate in a public health movement than the last stubborn or indifferent hundred. That fact, it seems to me, must be constantly borne in mind. As an example although we have every reason to be happy and proud of the results already attained in the campaign against diphtheria, which has reduced illness and death from that disease to the lowest point in the history of the State, the final goal has by no means been reached and the last lap of the journey to eradicate diphtheria will prove much the hardest to travel, challenge our persistence, and call for ever increasing effort.

Occasional local outbreaks of typhoid fever may be expected even in those states in which it has become but a small factor in morbidity just so long as carriers exist who may contaminate articles of food and drink, but waterborne outbreaks of typhoid fever are a grave reflection on local public health administration, the intelligence and civic obligations of the community. Nothing is more essential to the physical needs of a people than a pure and safe water supply; and it is astonishing how much difficulty is encountered by public health officials in bringing communities to a realization of that fact, and in persuading them to expend the necessary funds for the purpose rather than on public work of far less importance to their welfare. When a satisfactory water supply has once been installed, it must be safeguarded so far as is humanly possible at all hours of the day and night; but it too frequently happens that those who are entrusted with that responsibility are chosen from false motives of economy or for political expediency rather than on account of technical and personal qualifications.

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* Read before the annual conference of the State Committee on Tuberculosis and Public Health of the State Charities and Association in New York, January 19, 1927.

No achievement in public health is more frequently alluded to than the phenomenal decrease in deaths from tuberculosis which has taken place, especially in this country, within the last two decades. Truly this is just cause for rejoicing; but we in public health work must not claim undue credit for ourselves, for we have had as allies in the work national prosperity, gainful employment under more sanitary conditions, good food, better housing, shorter working hours, and opportunities for outdoor recreation which, to my mind, have been quite as much responsible for the results as have the efforts of public health workers. As a matter of fact, from the standpoint of public health alone, control of tuberculosis is, with notable exceptions and over limited areas of the State and country, far from satisfactory. The reporting of known cases is sadly neglected; the machinery for discovering new cases and placing them under adequate care and treatment in the incipient stage of the disease largely fails to function; provision for the care of the young who have been exposed to family infection and may themselves be infected or by reason of undernourishment likely to contract infection has made but little progress, while tuberculosis sanatoria are frequently inadequately equipped in medical and nursing personnel to render the service for which they were intended, and, finally, provision for the home supervision of the tuberculous, except in the great centers of population, is largely unprovided for. This subject will be fully discussed during the session; and the work of tuberculosis control in Cattaraugus County, the thoroughness and effectiveness of which, I believe, are not excelled and seldom equaled elsewhere in the country, will be particularly emphasized. I venture to hope that the expert knowledge of those taking part will lead to some nationwide movement for the better control of an ever-present disease which continues to sap the social and economic life of the nation.

If I have dealt almost exclusively with the control of infectious disease, it is due to my belief that this is now, and will be for many years to come, the major task of public health officials; and until such time as the machinery for performing it has reached a degree of perfection far greater than at present, we shall be wise to devote most of our thought and resources to that end rather than, leaving the work half done, venture upon new fields, however attractive and promising, which far less directly concern the public health. We have made a brilliant start in the work of disease control. Scientific knowledge plus wise administrations of its principles and the application of each new discovery have already gone far in the saving of lives and promotion of health; and yet we have only to recall our utter inability to exercise any real influence on the spread of respiratory diseases and their complications, poliomyelitis, and the slowly but surely increasing prevalence of encephalitis with their annual mighty toll of lives, invalidism, and crippling, in order to realize that this plainly marked field of public health work may well call forth every effort of which we are capable.

The phenomenal increase in the expectancy of life throughout the civilized world is a well deserved reward for the adoption and application of the modern principles of sanitation and hygiene; but the prolongation of life per se is not an end to which we should devote our major efforts, even though to every human being it seems the most important matter in the world. Rules of life, which if followed hold out to the devotee of longevity promise of one hundred years or more of existence, are being more and more widely circulated even by otherwise sane health publicists. They unquestionably make a popular appeal. Although I have never had the opportunity to meet a centenarian, a study of their biographies, which are very apt to be published in the daily press, together with their pictures, fails to convince me either of their attractiveness or utility. However eminent their historic prototype, the lot of modern Methuselahs is far from enviable. They are of real interest only to biologists, statisticians, life insurance companies and the village in which they usually first saw the light; the despair of undertakers and annoyance to their relatives and friends; and not infrequently have attained their conquest of the years in spite of breaking all the rules of health and hygiene. Our efforts, then, should be directed not to the prolongation of life as an end to be sought, but to the prolongation of usefulness while life lasts, whether it be for fifty or one hundred years. We are too apt to measure results of public health work in terms of births and deaths, and to give too little thought to the general physical condition of a population and the prevalence in communities of acute and chronic disease and their inevitable effect on social and economic life. Morbidity statistics are today almost non-existent, extremely sketchy or unreliable. In an attempt to dispel, in a small way, this ignorance of a subject of basic public health importance, the State Department of Health, through the Division of Vital Statistics and in cooperation with several hundred practicing physicians widely scattered throughout the rural districts of the State, has begun a study of morbidity in such districts. This involves the sending, by physicians, of weekly reports of the various conditions for which medical advice has been sought. The returns thus far give very valuable information, and the promise of obtaining, at no distant date, morbidity data which should serve as a guide to our efforts in raising the standards of health. Should this plan prove its ultimate value, I propose to carry it out on a more extensive scale and in the larger centers of population.

One of the outstanding characteristics of the American people is the vicious habit of enacting mandatory laws on every conceivable subject, a tendency which a not too friendly critic of our country pointed out not some years ago in ascribing to the American "A cynic devil in his blood that bids him make the law he flouts." In a recent article on the "Plague of Laws" published in the *American Mercury*, the author estimates that there are not fewer than ten million laws and ordinances theoretically operative in the United States today. I cannot vouch for the accuracy of his conclusion, but I am certain that you will agree that there are, on the statute books of this country, far too many "Thou shalt nots" and a minimum of "You shoulds" for the sake of your own health and happiness and that of others. As an example, while I fully realize that laws regarding prostitution serve to restrain the disorderly and vicious, and protect the innocent, all of them together have, in my opinion, accomplished far less in the reduction of the incidence of venereal disease and the treatment of the afflicted than has the force of public health education, public health clinics and demonstrations; and this is equally true regarding other matters which pertain to personal habits, human frailties and physical and mental health. Persuasion is a slow process. Its results are seldom spectacular but they are certain and durable, accomplishing far more among average human beings than attempts at legal compulsion. Those who are in a position to influence public health legislation should do everything in their power to prevent the cluttering up of public health laws with unnecessary mandatory provisions. As a very general rule, it is far better to confer permissive powers on administrative officials to be used in their discretion than to enact compulsory statutes of wide application which it is anybody's or nobody's duty to enforce.

All of the modern discoveries of medical science would be of little avail if they were not put into application by the process of public health education; and it is unfortunate that the number of effective public health educators is so painfully small. Their noteworthy messages, when broadcast, reach the ears of a listening public as a clear note of music emerging from a very bedlam of shrieking static.

Public health education is being carried on in this country to an extent not equaled anywhere on earth, and on the whole with good results. But hand in hand with legitimate, useful and convincing public health education goes an ever increasing host of unqualified educators, those who march in the public health parade solely for commercial reasons, promulgators of "half baked" truths or downright lies, and enemies of the public health. This state of affairs is perhaps inevitable, and the only means apparently available to remedy it is to see to it that all our methods of public health education are dignified, attractive, basically sound, free from speculative theories, and that they reach those people who are most likely to be interested in them, and who will in turn spread the message of public health to others.

Finally, I must plead guilty to having chosen a text to which, following the example of many preachers, my subsequent remarks are but remotely related. Let me repeat it, placing the emphasis where it belongs: "*Sound* public health work always progresses." If you believe, as I do, that this is true, you will strive, as I shall, to guide our future efforts in behalf of the public health through channels that are well charted.

RADIUM THERAPY IN CARCINOMA OF THE CERVIX*

By WILLIAM P. HEALY, M.D., NEW YORK, N. Y.

THROUGHOUT Europe and and America, since 1915, very earnest efforts have been made by competent observers to determine whether the admittedly unsatisfactory results of treatment of carcinoma of the cervix by hysterectomy alone could be improved by the use of radium or X-ray, singly or together, or one or both types of radiation in combination with operation.

The difficulties encountered by the surgeon in his efforts to successfully cope with carcinoma of the cervix were those common to carcinoma in any region of the body, namely, (1) lack of early diagnosis of the disease, and (2) inability to adequately and safely remove surgically the entire lymphatic drainage area through which metastases from the primary focus were sure to be disseminated.

Much effort has been made by publicity and educational campaigns to bring about earlier diagnosis in cancer of the cervix by impressing upon all women of adult age the necessity for prompt investigation by their physicians of such abnormal symptoms as vaginal discharge and bleeding from the genital tract between menstrual periods or after the menopause.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

It needs no argument, I am sure, for all of us to realize when either of these symptoms occurs as a result of cancer of the cervix, that only under the most fortuitous circumstance can we hope to find a lesion favorable for complete surgical removal. Leukorrhea, dependent upon cancer of the cervix, becomes evident only when the disease has assumed considerable magnitude and represents local tissue reaction to the irritation of the invading disease.

Abnormal bleeding, even in small amounts, can occur only when the integrity of the tissues has been injured or when the supporting perivascular structures have been weakened through replacement of strong connective tissues by soft, cellular cancer masses.

Hemorrhage, which is the most significant symptom from the patient's standpoint, it is therefore evident, will rarely occur without necrosis and destruction of normal tissues to some degree, and a coincident exposure to lympathic contamination and thereby early metastases.

In the years when hysterectomy was our only resource, a careful study of the parametrial lymph glands removed with the uterus and adnexæ revealed metastases in 35 per cent to 65 per cent of the so-called favorable cases. This, I think, fairly represents the handicap under which we, as surgeons, labor when we attempt to treat early carcinoma of the cervix by hysterectomy. Bear in mind these figures indicate that one or two out of every three clinically early cases are not really early, for metastases have already occurred beyond the confines of the uterus before the disease is recognized.

At this point it seems desirable that we should know what percentage of all cases applying for treatment are clinically, i.e., surgically "early" when first seen. In the eight years from January 1, 1918, to December 31, 1925, 836 cases of primary carcinoma of the cervix were admitted to the Memorial Hospital for treatment, and of this number 101 cases, or only 12 per cent were placed in the "early" group.*

However, according to the studies referred to above, 35 per cent to 65 per cent of these so-called favorable cases had already developed metastatic lesions in the parametrial tissues in all probability. So that it is a fair presumption that one or two out of every three cases in this group, if subjected to hysterectomy would show a recurrence of the disease within one or two years after operation.

Of the 836 cases, there were 130 cases or 15½ per cent that were grouped as borderline cases, by which we mean moderately advanced, the disease already involving the vaginal fornices or the parametrial tissues close to the cervix. In this group it may still be possible to remove the gross disease by operation, but there would be prompt recurrence of cancer in or about the vaginal vault and broad ligaments.

Hysterectomy in the borderline cases could, therefore, be only regarded as a palliative measure directed toward checking the foul discharge and the bleeding. For the remaining 72½ per cent of cases, the surgeon has little or nothing of value to offer except cauterization with the actual cautery, application of acetone, or ligation of blood vessels, or a combination of these methods.

There is then little wonder that gynecologists turned hopefully to the possibilities for valuable aid in the therapy of cervical cancer that seemed to lie in the application of radium and the roentgen ray. Today, we realize that sufficient clinical and scientific data are available from recognized clinics throughout the world, in which a careful and impartial study has been made of these therapeutic agents in the treatment of cancer, to indicate that radium and X-ray offer more than any other form of therapy in the treatment of cervical carcinoma.

So strong has the conviction become of the futility of hysterectomy in this disease that in some of the outstanding gynecologic clinics in Chicago, Philadelphia, and New York, it has been entirely discarded and treatment by radium and X-ray substituted. This, I think is one of the strongest arguments against operation, for these men are specialists in pelvic surgery and if they are willing to accept radium therapy, there is very little excuse for general surgeons continuing to treat carcinoma of the cervix by hysterectomy. It would be just as reasonable for them to treat mammary cancer by simple mastectomy, ignoring the axillary lymphatics, or carcinoma of the lip or tongue by excision of the primary lesion and neglect of the cervical lymphatics.

One does not dispute that some cases of carcinoma of the cervix have remained well after hysterectomy alone and some after cautery amputation of the cervix, but these cases are so limited in number that they only point the exception to the rule. However, personally I have no criticism of the surgeon who does hysterectomy for cancer of the cervix, limited to the portio vaginalis without any gross hypertrophy or broadening of the cervix, and of course, no evidence of parametrial involvement, providing he will promptly have the pelvic field given thorough post-operative irradiation with radium applied from the vaginal side and X-ray from the outside.

I say this because in my opinion, based upon a very unusual opportunity to observe the clinical course of this disease in the patients under treatment at the Memorial Hospital, our problem is not how we shall treat the primary lesion in the early or favorable cases, but how shall we postpone or prevent the almost inevitable recurrence in the parametrium or the lower vagina.

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* Up to October 1, 1921, these cases were under the supervision of Dr. Harold C. Bailey, who resigned at that time and courteously turned his records over to us.

Considering only the very early cases, we may dispose of the primary lesion by electrocoagulation, cautery amputation of the cervix, hysterectomy or radium. With any one of these methods the primary lesion may be so thoroughly removed that there will be no local recurrence. Nevertheless, the patient will almost inevitably develop cancer in the parametrium unless further treatment is promptly instituted.

To my mind there is no form of therapy today that can compare in value with radium and X-ray in delaying or possibly even preventing the appearance of cancer in the parametrium after the primary lesion has been destroyed in any one of the ways mentioned. Our studies on this point at the Memorial Hospital, we believe are sufficiently convincing to encourage a resort to thorough cross fire irradiation of the entire lymphatic drainage area as soon as possible after the primary lesion has been destroyed.

Personally, I believe the entire treatment in the "early" group can be carried out by radiation therapy alone to great advantage for the patient and without resorting to hysterectomy if one has access to proper radium and X-ray facilities.

When we turn to a consideration of the borderline and advanced groups, we have an entirely different problem. Here we can say without fear of contradiction that irradiation therapy represents the best and safest treatment from the standpoint of relief of symptoms, prolongation of life and, in some cases, possibly entire elimination of all active disease.

Our success in the treatment of these cases will depend upon our facilities for the application of radium in an exact and scientific manner at the primary site of the disease as regards dosage, filtration, types of applicator, etc., and the coincident use of X-ray therapy for the deeper portions of the pelvis.

Each patient must be individualized and treated as a separate and distinct case presenting differences in local extent of disease and in constitutional resistance. The total hours dosage of radium used will, therefore, vary according to these factors, as well as the filtration or type of applicator used, and whether or not one is planning to entirely eradicate the lesion or merely to palliate symptoms.

Such phrases as therapeutic dose, physiologic dose, trial dose, test dose, etc., as used by some writers in referring to the first dose of radium applied to the cervix are, in our opinion misleading, if not harmful and should be discarded.

A proper conception of the gravity of the disease and the urgent necessity for promptly checking it would indicate that the heaviest dose compatible with the integrity of the adjoining normal structures should be used for the first application in order to promptly induce the greatest possible regression at once. This also induces tissue reactions in the adjoining normal structures which we believe are advantageous in limiting the activity of cancer cells.

Subsequent applications of radium will depend entirely upon the effectiveness of the first dose and the manner in which it was applied.

Previous to October 1, 1921, the gynecologic service was in charge of Dr. H. C. Bailey and the patients were treated with radium only at that time. After January 1, 1918, on the principle of cross firing the lesion and the parametrial structures, radium was applied against the vaginal vault, within the cervical canal and externally about the pelvis.

Twelve per cent of all the cases treated in 1918 are still alive and it is interesting to note that five of those cases were in the advanced group. They have nevertheless lived a full seven years since treatment.

From January 1, 1922, to date, I have endeavored to adhere to the cross fire method of irradiation, using the maximum primary dose of radium in and adjoining the lesion and supplementing this later with low voltage X-ray externally. Three years have elapsed for all cases treated in 1922 by this plan. There were sixteen early cases of which 68.7 per cent are still alive and well; there were 27 borderline cases of which 37 per cent are alive, 80 advanced cases of which 17½ per cent are alive.

There were 29 recurrent cases accepted for treatment in 1922 after having been operated on unsuccessfully in other hospitals, and when they applied to us for treatment, definite palpable masses could be identified in the pelvis and in some instances biopsy to confirm the diagnosis was possible. Of these 29 recurrent cases, it is interesting to note that 31 per cent are still alive. These cases were all treated with radium and X-ray.

Taking all cases treated on this plan from January 1, 1922 to date, we have the following results:

66 early cases	81.8 per cent alive
68 borderline cases	66 per cent alive
327 advanced cases	42.8 per cent alive
93 recurrent cases.........	49 per cent alive
9 postoperative cases.....	88.8 per cent alive

During the past year we have replaced the bare unfiltered radium seeds, formerly used, by gold seeds of 0.2 mm. gold filtration which practically shuts off all gamma rays, and we believe this has been a distinct advance in the treatment of the primary lesion.

CONCLUSIONS

1. Hysterectomy as a means of removing the primary lesion may still be done in very favorable cases.
2. When hysterectomy is done, it should be promptly followed by thorough postoperative cross fire irradiation of the pelvic field.
3. If facilities for proper radiation therapy are available, hysterectomy should not be resorted to in the treatment of carcinoma of the cervix.
4. A combination of radium and X-ray therapy seems to be the most efficient form of treatment at present.
5. Unfortunately, the vast majority of the patients who develop carcinoma of the cervix will die of the disease because of the difficulties incident to early diagnosis.
6. All benign cervical lesions require constant watching until cured.

ANALYSIS OF ONE HUNDRED CASES OF BRONCHO-PULMONARY SPIROCHETOSIS*

By DAVID T. SMITH, M.D.,† RAY BROOK, N. Y.

JOHNSON in 1909 (10) and Rothwell in 1910 (29) were the first among American observers to recognize broncho-pulmonary spirochetosis. However, it was not known that the disease is relatively common in this country (Table I) until the contributions of Pilot and Davis (23) and Kline (11, 13, 14).

TABLE I.

CASES IN THE UNITED STATES.

Place	*Year*	*Authors*	*No. of Cases*
Rosedale, Miss.	1909	Johnson (10)	3
Liberty, Mo.	1910	Rothwell (29)	3
Kansas City, Kan.	1910	Hall (29)	1
Cincinnati, O.	1911	Peters (21)	3
New York City	1913	Lamb & Paton (16)	1
New York City	1913	Soper (31)	1
Brooklyn, N. Y.	1918	Greeley (7)	2
Baltimore, Md.	1920	Mason (19)	1
Anapolis, Md.	1921	Bloedorn & Houghton (2)	3
New York City	1921	Kline (11)	3
New York City	1921	Fishberg & Kline (6)	1
Galveston, Tex.	1921	Levy (17)	2
Cleveland, O.	1923	Kline & Blankenhorn (13)	4
Chicago, Ill.	1923	Pilot, Davis, Shapiro (24)	5
Chicago, Ill.	1924	Rawson (26)	1
Chicago, Ill.	1924	Pilot & Davis (23)	32
Halstead, Kan.	1924	McNeil (20)	1
Philadelphia, Pa.	1924	Jackson (9)	2
New York City	1924	Rohdenburg (27)	3
Henderson, Ky.	1925	Marshall (18)	1
Cleveland, O.	1925	Kline & Berger (14)	16
Chicago, Ill.	1926	Pilot (22)	2
Toledo, O.	1926	Ramsey (25)	5
Philadelphia, Pa.	1926	Bauer (3)	1
Ray Brook, N. Y.	1926	Smith*	14
			110

* In the press of American Review of Tuberculosis.

The present study includes 96 cases compiled from the American literature and 30 observed by me at Ray Brook. The number is not sufficiently large to allow a definite opinion regarding the influence of age, sex and race on the incidence of the disease. In this series, the age varied from 4 to 69 years; the average was approximately 33 years. Its occurrence was three times as frequent in males as in females in the 103 cases in which the sex was noted. The race was reported in 107 of the 126 cases; 94 were in whites of various nationalities, 12 in negroes and one in a Mexican.

For purposes of classification, the cases included in this series may be conveniently divided into 12 groups (Table II). The protean manifestations of the disease are revealed by a glance at this table. The pulmonary lesion in the 85 instances recorded was confined to the right lung in 38, to the left lung in 17, and in 30 both lungs were involved.

TABLE II

1. Lung gangrene.
2. Lung abscess following tonsillectomy.
3. Lung abscess following extra-respiratory operations.
4. Lung abscess complicating neoplasms of the lung.
5. Lung abscess associated with a foreign body in the lung.
6. Primary or spontaneous lung abscess.
7. Unresolved pneumonias.
8. Acute bronchitis.
9. Bloody bronchitis.
10. Putrid bronchitis.
11. Chronic bronchiectasis.
12. Any of the above mentioned types associated with pulmonary tuberculosis.

BACTERIOLOGY

Previous studies indicate that a wide variety of aerobic organisms is encountered in this conditon, notably the influenza bacillus, streptococcus and pneumococcus. However, the organisms constantly associated with this disease (15) belong to the anaerobic group: the spirochetes of the Vincent type, the fusiform bacilli, the vibrios and the cocci (Table III). This group of anae-

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* Read before the Medical and Surgical Section of the New York State Medical Society, New York City, March 29, 1926.

† New York State Hospital for Incipient Pulmonary Tuberculosis, Ray Brook, N. Y.

TABLE III

ORGANISMS REPORTED IN 100 CASES

Organisms	*No.*	*%*
Spirochetes only	9	9
Spirochetes and B. Fusiformis	26	26
Spirochetes, Fusiform B. & Streps	57	57
Fusiform B. and Streptococci	7	7
Fusiform Bacilli only	1	1
Streptococci only	0	0
Total	100	

robic organisms is so frequently found in the diseased tissues and their discharges during life as well as at necropsy (Table IV)* that the view is warranted that they are not merely contaminants, according to prevailing opinion, but are in reality the causal agents of the disease. This view is supported by experimental evidence.

TABLE IV

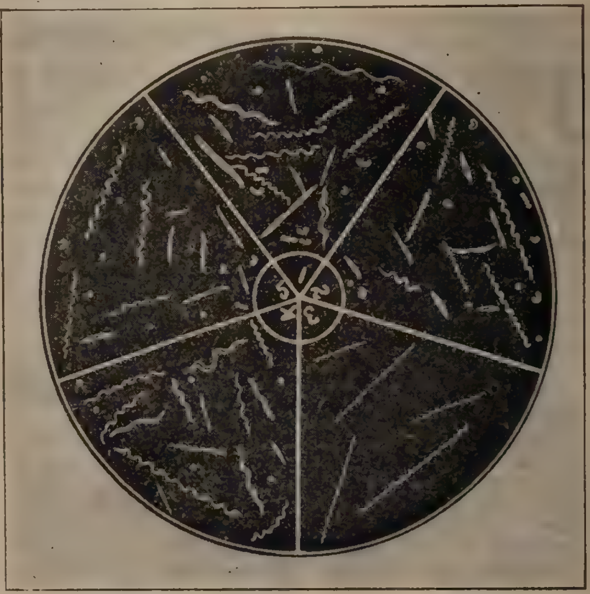
PROVEN SPIROCHETAL CASES

	No. of Cases	*Spirochetes*	*B. Fusiform*	*Streptococci*
Lung tissue at Necropsy	22	19	22	19
Pleural Fluid	7	7	6	1
Sputum recovered with Bronchoscope	2	2	2	1
Lung tissue expectorated	1	1	1	1
Total	32	29	31	22

With these organisms, Chalmers and O'Farrell (5) induced bloody bronchitis in a monkey; Pilot and Davis (23), gangrenous lesions in previously traumatized tissues of the rabbit; and Kline (12), pleuro-pulmonary gangrene in a rabbit by intrabronchial inoculation. I have been able to produce lung abscess in mice by the intratracheal injection of washed sputum containing spirochetes, fusiform bacilli and cocci recovered from cases of lung abscess and chronic bronchiectasis. Furthermore, it was possible to produce pulmonary abscess in mice, guinea pigs and rabbits by the intratracheal inoculation of scrapings from the gums of patients suffering from pyorrhea. It is significant that these pyorrhea specimens which produced experimental pulmonary abscess, contained spirochetes, fusiform bacilli, vibrios and cocci that were morphologically identical with the organisms recovered directly from the pulmonary lesions in patients. This observation leads naturally to the conclusion that broncho-pulmonary spirochetosis is probably the result of aspiration, from the mouth into the lungs, of this group of anaerobic organisms.

Fusiform bacilli, vibrios and cocci may be isolated in pure culture by ordinary anaerobic methods for the cultivation of bacteria. Although the spirochetes may be grown by the fresh-tissue-acitic-fluid method of Noguchi, still to date attempts to isolate them in pure culture have not proven successful.

Ordinary analine dyes suffice to satisfactorily stain the fusiform bacilli, vibrios and cocci. The spirochetes are best demonstrated by the Fontana stain. The ammoniacal silver nitrate solution used in this stain deteriorates, and after 5 or 6 days is no longer effective for staining spirochetes. Very thin smears are a requisite. They must be made within the first hour after the specimen is collected because the spirochetes when exposed to the air lose their ability to retain the stain. If, however, the specimen is kept under anaerobic conditions, the spirochetes retain their tinctorial properties for at least 4 or 5 days. Spirochetes are readily demonstrated by the aid of the dark field (Figure).



DARK FIELD PICTURES OF SPIROCHETOSIS

Section 1, represents the spirochetes (T. macrodentum, T. microdentum, S. buccalis, S. Vincenti), fusiform bacilli, vibrios and cocci found about the teeth of a patient suffering from moderately severe pyorrhea alveolaris.

Section 2, shows the spirochetes, fusiform bacilli, vibrios and cocci in the pulmonary sputum (after washing) of a patient wiht a lung abscess. Note the absence of the thick S. buccalis.

Section 3, contains drawings of Treponema pallidum found in a typical chancre. These organisms are quite different from those in the other sections.

Section 4, is a drawing of the organisms in the bloody sputum of a patient with chronic bronchiectasis. Many thick S. buccalis specimens are present.

Section 5, illustrates the spirochetes, fusiform bacilli, vibrios and cocci found in the pulmonary sputum (after washing) of a patient with chronic bronchiectasis. These forms are identical with those seen in Section 2.

SYMPTOMS

To the varied nature of the pathological lesions in broncho-pulmonary spirochetosis may be attributed the wide difference in the clinical manifestations. The more common symptoms are enumerated in Table V. It will be noted that, with the

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* Rona (28), Buday (4) and Arnheim (1)—necropsy reports.

TABLE V

SYMPTOMS IN 100 CASES

Cough	95%
Expectoration	94%
Rales	63%
Foul sputum	62%
Fever	60%
Pleural pain	52%
Hemorrhage	50%
Foul Breath	30%
Sputum in three layers	28%
Loss of weight	28%
Clubbed fingers	13%
Night sweats	12%

exception of foul sputum, they conform to the prominent symptoms in pulmonary tuberculosis. Hemoptysis, the striking symptom in tuberculosis (8) occurs with equal frequency in this disease. Owing to the similarity of the symptoms, the diseases are frequently confused. In 24 of the 126 cases, active pulmonary tuberculosis was eliminated either at autopsy or by a negative tuberculin test (Table VI). In 9 of the 126 cases active pulmonary tuberculosis was a complicating factor.

TABLE VI

UNCOMPLICATED CASES OF SPIROCHETOSIS

Proven Non-Tuberculous cases	*No.*	*Hemorrhage*	*%*	*No hemorrhage*	*%*
At autopsy	19	9		10	
By tuberculin test	5	3		2	
Total	24	12	50%	12	50%

SPIROCHETOSIS AND TUBERCULOSIS

	No.	*Hemorrhage*	*%*	*No hemorrhage*	*%*
Proven tubercle bacilli and spirochetes	9	4	44	5	56

BLOOD

Where the disease was chronic and limited to the bronchi, the blood was for the most part normal. In the parenchymatous lesions, secondary anemia was relatively common and the white blood count ranged between 10,000 and 60,000 with a relative and absolute increase in the polymorphonuclear leucocytes.

The Wassermann Test was recorded in 36 of the 126 cases; it was negative in 33, doubtful in 2 and positive in one.

The physical and Roentgenographic findings showed considerable variation according to the extent and location of the lesion. When the disease was for the most part in the bronchi, the signs were those of bronchitis or bronchiectasis, and little information was obtained from the Roentgenogram unless the exposure was made following intratracheal injection of lipiodol. This procedure is effective in revealing the bronchial dilatations. In the parenchymatous lesions there were usually signs indicating pulmonary consolidation, and on the chest Roentgenogram the shadows were dense and as a rule confined to one section of the lung field.

COMPLICATIONS

Brain abscess and empyema were the two important complications (Table VII). Brain abscess was usually fatal while with empyema the prognosis was grave.

TABLE VII

COMPLICATIONS

Complication	*No. of Cases*	*%*	*Remarks*
Empyema	11	11.5	B. fusiformis, spirochetes and streps in all cases.
Brain abscess	3	3.1	Spirochetes, B. fusiformis in one.
Hydropneumothorax	2	2.1	No spirochetes in two.

TREATMENT

The results of treatment are summarized in Table VIII. Spontaneous recovery occurred in a limited number of cases. The arsenical preparations were particularly helpful at times when employed early in the disease. When the disease was of six months' duration or longer, no instance was recorded in which the disease was cured. Drainage of the cavities by posture is often attended by striking amelioration of the symptoms. In this series, operative procedures were employed in a limited number; on the whole the results were encouraging. Rest during the toxic period is as essential as in pulmonary tuberculosis.

TABLE VIII

TREATMENT

	Duration of Disease	*Cured*	*Improved*	*Unimproved*	*Died*	*Total*
Treatment by rest	Less than 6 months	6	3	0	17	26
	More than 6 months	0	1	2	4	7
						33
Treatment with Arsenicals	Less than 6 months	14	7	1	7	29
	More than 6 months	0	9	6	0	15
						44

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THE DIAGNOSIS OF EARLY DIABETES*

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AUTHORITIES claim that diabetes mellitus is on the increase. Joslin (1) estimates that there are a million diabetics in the United States and is of the opinion that a campaign for its prevention holds the same promise as preventive measures against tuberculosis and other preventable diseases. Probably it is true that the diagnosis of early diabetes in most cases is more simple than the diagnosis of incipient tuberculosis. However, more than a routine examination of the urine is needed in this search for the early diabetic, and many so-called prediabetics will escape detection if the routine analysis of the urine is supplemented only by the fasting blood-sugar determination, for there are borderline cases which show a transient glycosuria and do not always have a fasting hyperglycemia. In such cases the test for glucose in the urine may be positive on the first examination, but on the second test, a few days later, glucose is absent. Now, if the fasting blood-sugar varies and is only occasionally above the normal, the real significance of the transient glycosuria may be lost. In such cases the tolerance of the patient to carbohydrate must be studied before a diagnosis can be made. Glycosuria alone cannot be regarded as pathognomonic of diabetes. Glycosuria is a symptom and its cause must be ascertained in each case. All reducing substances are not glucose, although glucose is by far the most common substance in the urine which reduces the copper reagents.

In the ordinary diet carbohydrate forms more than sixty per cent of the food ingested and yet it probably constitutes not more than one per cent of the body weight. Thus it is seen that sugars and starches are the most easily metabolized of the foodstuffs. So, if the process of metabolism is disturbed, one would expect the disturbance to be manifested particularly in the carbohydrate. The disturbance in metabolism is characteristic of diabetes mellitus and is shown most obviously in respect of that kind of food which is eaten abundantly and which forms the smallest part of the body structure.

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* Read at the meeting of the Seventh District Branch, at Geneva, New York, September 29, 1926.

The limit to the amount of sugar which the normal individual can assimilate is sufficiently high for all ordinary needs. One has to take one-quarter per cent of his body-weight (approximately 175 grams for a man five feet, eight inches in height) of glucose at one time before any will appear in the urine under normal conditions. And no amount of starch should cause sugar in the urine, because the time taken in its digestion prevents the blood from being flooded with sugar. While the ingestion of sugar may therefore be followed by glycosuria without implying the existence of diabetes, it is probably a true statement that a glycosuria which appears after a free ingestion of starch indicates diabetes.

When the body begins to lose its power to assimilate sugar, it often attempts to compensate for the loss of valuable foodstuffs by storing up more than usual in the form of fat. Many cases of obesity are merely potential diabetics. This excess storage only adds to the weight of the body, makes activity more difficult and the complete oxidation of the fat makes a greater demand on a system which is already overtaxed. Naturally, there is a limit to this deposit of fat and when this is reached glucose appears in the urine. In still another way the body may attempt to compensate for the loss of sugar and that is by raising the carbohydrate threshold. Routine blood-sugar determination has brought into common usage the term renal threshold, which means the concentration of sugar in the blood at which point glucose first appears in the urine. Normally, the blood contains 100 mgms. of glucose per 100 c. c. of blood. About twenty minutes after the ingestion of glucose, the sugar in the blood begins to rise, reaches 150 to 170 mgm. and begins to fall again toward normal after about one and one-half hours. If the higher figure (170 mgm.) is exceeded, one expects to find a positive test for glucose in the urine. But when carbohydrate metabolism has been disturbed for some time, the blood-sugar may rise and yet no sugar appear in the urine. Many diabetics, treated and untreated, show no glycosuria with blood-sugar as high as 250 to 300 mgm. or higher—a figure at which the normal individual would inevitably excrete sugar.

This high concentration of sugar in the blood in all probability disturbs the equilibrium of the body fluids and causes many of the symptoms of the diabetic, such as the polyuria and the consequent thirst, the changes in the translucency of the crystalline lens, the neuritic pains brought about by changes in the nerve sheaths, the pruritus, and the liability to furunculosis.

Since the kidney can raise a threshold or barrier to the excretion of sugar and since this threshold can vary in height, it is self-evident that the examination of the urine is not a satisfactory measure of the blood-sugar. Glycosuria may occur without hyperglycemia, while hyperglycemia need not be followed by glycosuria. The point of interest in cases of disturbed carbohydrate metabolism has therefore shifted from the urine to the blood. A fasting hyperglycemia is indicative of potential diabetes.

As has already been stated, it seems more rational to think of sugar in the urine as a symptom and its cause must be ascertained in each case. With certain patients it may be necessary to exclude disturbances of one or more of the glands of internal secretion and in other cases, the taking of drugs which reduce copper reagents must be eliminated, and in still others, it may be possible to make a diagnosis of renal glycosuria. For a long time, the glucose tolerance test has been used as the criterion in these difficult problems.

In this test comparatively large quantities of glucose are given. As a rule the patient finds it distasteful and is often nauseated. Furthermore, there may be some danger in over-loading a weakened tolerance by the rapid absorption of a large quantity of pure glucose. Also the patient is tortured more or less by having his vein frequently punctured for a specimen of blood and the extra work of analyzing many specimens overtaxes a busy laboratory staff.

Many of the patients admitted to this clinic for routine examination have shown transient glycosuria, or have shown symptoms suggesting impaired carbohydrate metabolism such as pruritus, furunculosis, neuritis, substernal pain, etc. The indication in such cases was obviously either to overthrow or to confirm the suspicion that these patients were early or potential diabetics. Because of the objection to the usual glucose tolerance test, it was decided to use a modified glucose tolerance test, or food test—Brill (2).

In this test the night urine is collected and a sample of the fasting blood obtained. A breakfast consisting of 100 grams of carbohydrate, 26 grams of protein and 27 grams of fat is fed, and two hours later a second sample of blood is drawn. The urine excreted during the four hours following the meal is also saved. The sugar content of the two specimens of blood and of the two specimens of urine is determined. By studying the concentration in the fasting blood and the change in the concentration of a specimen taken two hours after the meal, one can gain a fair knowledge of whether the carbohydrate metabolism is disturbed.

In this food test no allowance is made for variation in the emptying time of the stomach or in the rate of absorption from the intestines. It is obvious that such variations may affect the test. However, these same factors enter into the routine glucose tolerance test in which pure glucose alone is given by mouth; also when glucose is given intravenously some is excreted into the stomach, so that the metabolism is not accurately checked unless gastric analyses be made. Again one might raise the objection that, in this food test as used at the clinic, the maximum blood-sugar concentration is not determined and the complete blood-sugar curve is not obtained. On the other hand minor deviations in such a curve may not be of practical significance and slight or transient abnormalities may be overemphasized. So a method which points to the more marked changes possesses distinct advantages and gives results which can be readily understood.

The cases selected in this problem offered signs or symptoms which suggested some abnormality in carbohydrate metabolism and, yet, the disturbance in metabolism was not sufficient to warrant a diagnosis of diabetes at the preliminary examination. These patients showed transient glycosuria, or were obese, or had neuritis, or suffered from substernal pains, or had furunculosis. This preliminary work covers 268 cases, the number selected from the routine admissions of one year. The majority of signs, symptoms, or accompanying diseases which were found at the time of admission to the clinic are listed in Table 1.

TABLE I

Family history of diabetes	26
Anemia (secondary)	33
Alveolar abscess (chronic)	41
Cholecystitis (chronic)	17
Tonsilitis (chronic)	95
Other infections	35
Arteriosclerosis	17
Hypertension	36
Pruritus	8
Neuritis	22
Neuroses	55
Migraine	8
Thyroid	11
Cardiac	18
Obesity	111
Glycosuria	179.

By the modified glucose tolerance (or food) test 81 showed no distinct evidence of impaired carbohydrate metabolism and were considered negative; while 187 showed an abnormal blood-sugar curve and glycosuria and were classed as positive. Tonsils, teeth and gall bladder accounted for most of the chronic infections; the other infections refer to sinusitis, otitis, media, chronic appendicitis, furuncules, etc. The cases of thyroid disturbance included one colloid goitre, one of the exophthalmic type, and nine cases of adenoma. The eighteen cardiac cases gave a history of substernal pains or showed signs of myocardial weakness.

Forty-five of the cases showing glycosuria were negative according to the test meal, that is, they gave no further evidence of disturbed carbohydrate metabolism. Of the 179 cases of glycosuria, sixty-four gave no history of sugar in the urine previous to the test, but they were selected because of other symptoms and during the food test they were found to have glycosuria and hyperglycemia. Sixty-eight of the series had a normal fasting blood-sugar, but showed a hyperglycemia and glycosuria two hours after the meal.

Since the tendency to diabetes is often concealed for long periods and since, in many instances, the disease manifests itself only temporarily before the cardinal symptoms become permanent, the extreme importance of early detection of these cases cannot be overemphasized. The only hope for the prevention of diabetes rests with the early diagnosis. The diagnosis can be made in the early stage if the first symptoms of a disturbed carbohydrate metabolism are recognized and their real significance determined. The physician who casually dismisses a patient with transient glycosuria, obesity, neuritis, pruritus, substernal pain or furunculosis may find some months later, that the case has developed into one of severe diabetes. In the early cases, the point in the diagnosis rests upon the blood-sugar determination, and in this determination further aid, such as that offered by the test meal, is often required.

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PYELITIS OF FOCAL ORIGIN*

By M. ZIGLER, M.D., NEW YORK, N. Y.

MR. F. J. A., age 32 yrs.—married and has one child, 5 yrs. old.

Past History:—Negative for TBC. in personal and family history. 13 yrs. ago Gon. no complications. Denies syphilis. Past 3½ yrs. has burning sensation at tip of penis, present at all times without reference to urination. For 3½ yrs. diurinal frequency 8-10 X, no nocturia. Has received local treatment directed toward urethra, on and off for past 3½ yrs. such as sounds, irrigations etc., without any improvement.

Present History:—May 4, 1925, came to the office with the following complaints. Four days ago developed increased diurinal frequency, nocturia 1-2 X with pain at end of urination. Past 24 hours, three urinations showed total hematuria, other urinations not bloody. This day voided cloudy but not macroscopically bloody urine. Examination showed external genitals and S. V. normal. Prostrate almost normal. Both kidneys gave a negative Murphy sign. Kidneys not palpable. In view of the fact that the patient had received instrumentation elsewhere, I felt that the condition present was a mechanical and chemical cysto-urethritis and gave him ol santali, Hyoc, and Kal Citras internally and ordered him to drink large quantities of water. Patient returned two days later stating that the previous night again had total hematuria associated with fever, chills, sweats and with excruciating pains on urination. Examination showed slightly tender palpable right kidney with a positive Murphy. Both urines were very pus cloudy (hazy) macroscopically. The diagnosis of Pyelitis was now made. During all this time the patient complained of very severe pain in muscles of back in sacro-lumbar region, also pain in right shoulder. He was now given urotropin and acid sod. phosphate. A 24-hour specimen of urine was highly acid, probably due to acid sod. phosphate and showed a large number of red and W. B. C., heavy trace of albumen, negative for casts and tubercle bacilli. The culture plate showed bacilli coli present. Within 48 hours the temperature dropped to normal but the patient still had knife like pains in the perineum. Remained in bed 48 hours.

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* Read at Bronx Surgical Society April, 1926

May 11, 1925. One week after coming under observation patient was fairly comfortable. Temperature taken 6 times this day, found normal each time. Urotropin and acid sod. phosphate were discontinued. Gave patient 30 gr. Bicarb. q 3 hours because some authorities have stated that a rapid therapeutic change from acid to alkaline or vice versa causes a very favorable influence in pyelitis. Within 15 hours after the change, the patient developed his first real chill, heartburn; temperature ranging from 101 to 104. Promptly upon the re-administration of acid sod. phosphate the temperature dropped to normal and remained so.

Patient remained in bed seven days from date of elevation of temperature. Right kidney remained tender and slightly enlarged for about one month. Six weeks after onset no urinary symptoms present. The pains in the sacro-lumbar region became a great deal worse from the cular pains involved the entire back, no localized area being worse than any other, the thought of 6th to the 10th week after onset. As these mus-absorption from the tonsils as a focus entered my mind, especially as the urines were still pus cloudy and also because the myalgia responded partly to aspirin and because now, for the first time I obtained the following history. For the past 7-8 yrs. patient has had frequent tonsillar attacks. About 2 yrs. ago patient began to have attacks of severe facial neuralgia, pains in the back of the head and neck, terrific headaches, rheumatic pains in the arms, shoulders and back. His doctor advised tonsillectomy.

July 22, 1925, I examined his throat for the first time and found very large, swollen and boggy tonsils. After this finding, I felt there was a definite relationship between his pyelitis and tonsils.

July 25, 1925, performed cystoscopy since I felt that the entire condition had subsided enough to warrant this examination. During the acute stage of colon bacillus infection of the bladder, I was very averse to cystoscopic examination feeling that the condition would be very much aggravated by such instrumentation. Cystoscope No. 24 Fr. passed readily into bladder, meeting no urethral obstruction. Bladder wall, sphincter and ureteral orifices normal. Supramontane portion of the urethra very red and congested. Verumantanum very large and globular in shape. Passed No. 6 olivary shaped ureteral catheters up into both right and left kidney pelves without any difficulty. Injected 1 cc Phenolsulphopthalein intravenously and within 15 minutes dye appeared from both kidneys in equal concentration. Phenolsulphopthalein estimations:—Right kidney—10% in 15 minutes—Left kidney—10% in 15 minutes. Microscopical findings of separated urines:—Right kidney urine—few R. B. C. numerous round epithelial cells, negative for pus cells. Left Kidney urine—numerous R. B. C., round epithelial cells, negative for pus cells. Because of presence of R. B. C. in separated urines, had complete urine examination shortly thereafter and no pus cells or R. B. C. were found and urine was negative for bacteria. Tonsillectomy performed Aug. 15, 1925. Oct., 1925, which was 6 weeks after the tonsillectomy, still had slight lumbago pains occasionally in the morning, but not as severe or persistent as the pains that were present prior to treatment and tonsillectomy.

April 10, 1926, which was 11 months after he came under observation, radiographic examination of the urinary tract shows both kidneys to be normal in size, shape and position. There is no evidence of calculus in either kidney, ureter or bladder. Several days later complete urine examination is negative in every way. No pathogenic bacteria found by culture.

This case is reported as a case of pyelitis, probably secondary to infected tonsils. The reasons for thinking so are the following. Patient gave a history of 7-year tonsillar trouble, with absorptive symptoms manifesting themselves the past 3½ years by severe pains in muscles of neck, arms, shoulders, etc., and with vague urinary symptoms for same period. Then suddenly an acute pyelitis with no other factor ascertainable as a possible cause. It is true, however, that the colon bacillus was the only bacteria found in the urine and unfortunately I did not ask that the otologist take culture of the tonsils. However, of additional value might be the fact that Hunner states that a large percentage of cases of ureteral strictures are due to focal infections from teeth or tonsils and if ureteritis or ureteral stricture may result from infections in tonsils why not pyelitis. Also some of the Hunner irritable ulcers or elusive ulcers of the bladder are supposed to be secondary infections in tonsils, teeth, etc.

Hunner, in the *Journal of Urology* of October, 1924, says: "It is a common observation that the majority of patients with ureteral inflammation also have inflammation of the trigone and urethra and it is probable that in most instances the three processes are evolved from a common cause."

The above quotation was used because this patient showed congestion of the supramontane portion of the urethra. This congestion was probably the cause of his pain in the urethra prior to the onset of acute pyelitis and that the tonsils were the cause of both. Hunner also states in the same issue of the *Journal of Urology* the following: "Knowing the relationship of focal infections to the incidence of ureteral strictures, the history in a stricture patient of severe periodic headaches of a migrainous or neuralgic character always calls for an early consultation with the otolaryngologist to determine whether there be a focus of infection in the tonsils, sinuses or teeth. Experience has shown that one fails to get permanent results in a large proportion of ureteral stricture patients until distant foci of infection have been cared for."

Moreover, George Baehr of Mt. Sinai in the April 3, 1926, issue of the *A. M. A. Journal* in a paper entitled "Benign Curable Form of Hemorrhagic Nephritis," gives a summary of 14 cases of hemorrhagic nephritis occurring as a result of focal infections. German clinicians were the first to report this mild type of hemorrhagic nephritis. Scheedemandel and Volhard are both quoted by Baehr.

Baehr's summary of his 14 cases is as follows: "The disease occurs most commonly in young adults and is characterized by a hematuria, usually macroscopic, which may be painless." "Unlike the common form of the acute diffuse disease there are usually no constitutional symptoms." "That is neither oedema nor hypertension develop at any time during the course." "The hematuria may be persistent or recurrent in the form of brief attacks." "In most instances a definite focus of chronic infection can be discovered usually in the tonsils." "The elimination of such a focus for example by tonsillectomy, frequently results in a temporary but pronounced increased hematuria, followed by gradual but complete disappearance of red blood cells from the urine." "Many of the cases are at first considered examples of hematuria due to surgical conditions in the Gu. tract." "Some have undoubtedly masqueraded in the past under the general terms of essential hematuria."

SUMMARY

(1) Since focal infections in the tonsils or teeth may be a causative important factor in ureteritis, ureteral stricture and hemorrhagic nephritis, why not in pyelitis. We also know the close association between carbuncle of the body and carbuncle of the kidney. The same is true of peri-nephritis abscess following some skin or chronic bone infection.

(2) This case has been presented with the idea of bringing the possibility of pyelitis of focal origin to our attention, so that not only the pyelitis be treated but also that a focal origin be looked for and eradicated.

(3) This case is also presented to show that the rapid change from acid to alkaline urine does not always work favorably.

EDITORIAL

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For list of officers of County Medical Societies, see Journal of October, 1, 1926, advertising page xxvi.

THE ANNUAL MEETING

The Annual Meeting of the Medical Society of the State of New York will be held during the four days beginning May 9, in Niagara Falls. While the date is three months in the future, yet the committees are already hard at work preparing the programs and making the necessary arrangements.

The time is also at hand when physicians should begin to make their plans to attend the meeting. Niagara Falls is well supplied with hotels, and the local committee of arrangements assures all comers of excellent accommodations. Moreover, the session halls and the places of attraction are within easy reach of the hotel centers.

Keep the date and the place in mind, and plan to enjoy the many sided advantages of the meeting and the meeting place in beautiful Niagara Falls.

A PRECEDENT FOR THE GRIEVANCE COMMITTEE

Physicians have long felt the need of some means by which they could investigate and arbitrate questions of professional conduct, unhampered by publicity and legal precedents. The censors of the county medical societies were established for that purpose, but local acquaintanceships and feuds prevented their proper functioning.

The precedents for the establishment of a Grievance Committee have hitherto been drawn entirely from the experience of lawyers. It is of value therefore to recite the experience of a county medical society with a Grievance Committee over forty years ago.

The Minutes of the Suffolk County Medical Society for April 27, 1882, contain the following entry:

"Dr. E. H. Hamill moved that a Committee on Grievances be appointed by the Chair, whose duties shall consist in acting in the remission of fines, when excuses are proffered, and all such matters as commonly pertain to similar committees in other organizations. He thought the society would as a body be saved much time, and that it had become a necessity. He moved, therefore, that the President appoint a committee of three members on Grievances to report at the next meeting of the Society. Seconded and carried. The President appointed as such committee Drs. R. H. Benjamin, F. Thayer and J. H. Benjamin."

Dr. Hamill "also gave notice of intending to bring in a new By-law, viz., 'that a committee of three members in good standing, to be called a 'Committee on Grievances,' be elected annually, whose duties it shall be to consider and report upon all grievances between members and also to consider the propriety of remitting any fine or fines that shall be imposed, under Art. II, Sec. I of By-laws, and to report upon all other matters that may be referred to it'."

The Minutes of the evening session held the same day record that Dr. Hamill made the following charge against Dr. A. G. Thompson of Islip:

"Charge: 'For conduct unbecoming a professional brother.'

"Specification 1st: 'On or about January 15th, 1882, Dr. A. G. Thompson having been called by myself (Dr. E. H. Hamill), and without request of the patient, to visit in consultation a patient suffering with some obscure malady, probably cancerous, came probably on two or three occasions at different times; on being again invited by myself without request of the family, he informed me that he had just returned from a visit to patient and family, and had advised them to secure the services of another physician, mentioning Dr. J. R. Mowbray of Bay Shore. I, within a few minutes, asked him if he had done this of his own accord; he replied he had.'

"Specification 2d: 'That after a consultation with Drs. Mowbray, Vandewater and myself, at which he (Dr. A. G. T.) was not present, he repeated in public that a consultation had been held, that the man now had some chance for himself, and that my drugs had been thrown out of the window, or words to that effect.'

"Specification 3d: 'That after the decease of the patient, and at the funeral, he accompanied the clergyman as the attending physician, preceding the hearse, to the burial ground or cemetery, notwithstanding the fact that the family had requested that I should do so.'"

Specification 2d was changed on May 9 to read: "That, after a consultation, Drs. Mowbray, Vandewater, and I being present, he (Dr. Thompson) was heard to say publicly that 'we had held a consultation; that the treatment had been entirely changed, and that the man now had a chance for recovery'."

The charges were referred to the Committee on Grievances, which made an unrecorded report on October 31, 1882; but the report provoked much discussion, and it was referred back to the Committee.

The final report of the Grievance Committee was made to a meeting of the Society on April 29, 1885, and was as follows:

"As members of the Committee on Grievances, appointed at a meeting of the Society held the 29th day of April, 1882, and the addition of Dr. A. B. Luce, Nov., 1882, we have had submitted to us charges against Dr. A. G. Thompson by Dr. E. H. Hamill, the latter charging A. G. Thompson with conduct unbecoming a professional brother. We have examined each of the specifications enclosed in this report separately and find as follows:

"In regard to the first specification, we find the explanation made to us in writing by Dr. A. G. Thompson of that character as to exonerate him from all censure.

"As to the charge in the second specification the only part proven is that Dr. Thompson said there had been an entire change in the treatment, and there was a chance for recovery. As we understand the testimony, both Dr. Hamill and Dr. Thompson admit both the testimony and the inference. Courtesy was, we think, that if Dr. Thompson could not have added at the same time, *that the past treatment had been judicious,* he should have left it to the attending physician to have announced the change of treatment:

"In regard to the 3d specification, we do not consider the rules of medical etiquette at funerals sufficiently established as to cause the alleged deviation at the time worthy of professional censure.

"We therefore affirm that the errors alleged committed were of so trivial a nature as to be unworthy our censure.

"R. H. Benjamin,
"J. H. Benjamin,
"A. B. Luce,
"Committee.

"Riverhead, N. Y., Oct. 25, 1884."

The principal actors in this case were prominent physicians. Dr. A. G. Thompson was born in New York in 1816; graduated from the College of Physicians and Surgeons in 1837; and was Secretary of the New York Medical and Surgical Society. He practiced in Islip from 1851 to his death in 1887. He was prominent in both medical and civic circles; was a frequent attendant at the meetings of the Suffolk County Medical Society; and was a member of the Assembly in 1857.

Dr. E. H. Hamill was of southern birth. He was licensed in 1868, and practiced in Islip until 1887, when he entered the employ of the Prudential Life Insurance Company, and became its Chief Medical Director.

The three members of the Grievance Committee were all honorable physicians practicing in Riverhead.

There does not seem to have been any further entry regarding a Grievance Committee in the minutes of the Suffolk County Medical Society.

The Journal will print any other references to a grievance committee or a similar committee which may be discovered.

NARCOSAN AND THE NEWSPAPERS

A brief semi-popular report of a drug addict treatment in a medical journal.

A "news release" of the same story given out before the date of publication of the medical journal.

A feature story published all over the United States.

An exposure of the record of the originator of the treatment by the Journal of the American Medical Association, which had refused the article which appeared in the Medical Journal and Record.

The condemnation by the State Department of Health of the unscientific conditions under which the treatments were conducted.

An acceptance by the daily press of statements of patients, nurses and interested doctors as being of equal value with the careful medical investigation of the conditions under which the treatments were given.

All these points are discussed in the Department of The Daily Press on page 144 of this Journal.

There is a further point involved in an editorial suggestion by the *New York Sun* of January 17, 1927, which says: "The *Sun* would like to see the medical moguls of State and City lay aside suspicion and hair-splitting ethics, and collaborate without delay in a study of the narcosan treatment in the island workhouse."

The medical men who investigated the treatment followed the standard procedure which is dictated by both science and law. When a new subject comes up, the procedure of both the research worker and the lawyer is to examine the evidence and see whether or not it is reliable and founded on accurate observation.

First, as to the discoverer, the American Medical Association has his record for years back which shows that he is not a physician, but that he is a seeker after recognition on insufficient grounds.

Second, as to the drug itself, the Research Department of the American Medical Association had investigated the product months or years ago and refused it recognition on the ground that its composition was unknown and uncertain.

Third, as to the conditions in which narcosan or similar substances are curative, its promoter has claimed that it is good for cancer, and for addiction to alcohol and veronal. The claims are too broad.

Fourth, as to the application of the treatments on Welfare Island, the representatives of the State Department of Health visited the wards of the patients and found that the treatments were given under conditions of inaccuracy, which seriously impair their scientific value. The claims of the promoters of the drug are their own opinions rather than the logical deductions from the observation of trained observers.

A fundamental principle in law is that legal action must be based on sufficient evidence. A district attorney, for example, investigates complaints and clues, and rejects a far greater number than he prosecutes.

Similarly, the representatives of the medical profession have investigated the claims of the promoters of narcosan and report that the evidence is insufficient to warrant further action.

However, this by no means ends the investigation by physicians. The problem involves an investigation of the entire field of lipoids, vitamines, and specific proteins concerning all of which our knowledge is only crude. The meager evidence concerning the narcosan treatments already given will be preserved and clues followed up by workers in numerous laboratories. Months and years of investigation will be required to ascertain the composition of the drug and to measure the effects of its constituents on the body. The estimation of the value of lipoids and vitamines and specific proteins may safely be left to physicians and research investigators working in their own scientific way. The reports will not be given to the newspapers, but to medical and scientific journals whose pages are open to the representatives of newspapers and to any other persons who care to consult them.

BETTER INSTRUCTION IN PHYSIOTHERAPY

Almost forty years have passed since such medical pioneers as the late Professor Baruch of Columbia University, William J. Morton, also of New York, and Professor Herdamen, of the University of Michigan, among others, began their efforts to awaken our American profession to the urgent need for adding scientific physical methods to its other treatment facilities. Dr. William Benham Snow and Dr. Frederic deKraft of New York, in that early group, are still actively engaged in this good work. Recognized leaders abroad, among them d'Arsonval, Oudin, Leduc, Finsen and Winternitz, should also be mentioned here, while such eminent non-medical American scientists as Elihu Thomson, Charles Lorenzo Clarke, Nicola Tesla, and Arthur Edwin Kennelly, helped materially to place the new knowledge on a firm basis. These honored names by no means exhaust this worthy list.

When, therefore, disabled veterans in our late war hospitals required such physical therapy, there were at hand a limited number of fully trained physiotherapists to take charge of special clinics arranged there for their relief. The often astonishingly good results obtained in seemingly desperate conditions proved educational for many physicians, then army officers and stationed at those hospitals. The resultant nationwide call for instruction in these methods found our medical schools lagging, which led directly to one-week courses by peripatetic medical lecturers, either covertly or openly financed by makers of medical electric machines.

Such ex parte talks, indeed, served but to whet the taste for more knowledge on the subject so that, in addition, so-called congresses on physiotherapy have been held lately, largely in the midwest, but also arranged by the instrument makers and open to the same objections. These "congresses" show up pitifully when compared with the highly technical proceedings of like international physiotherapy meetings in Europe. The Council of Physical Therapy of the American Medical Association has just issued its disapproval of such courses (*J.A.M.A.*, Oct. 16, 1926) and, it is understood, will in time issue definite study curriculums for the purpose.

With the intention of aiding this desirable object by offering practical suggestions from members with years of experience in this field, a combination has been effected of committees from the four national or regional organizations representative of this activity. Initial steps were taken by the American Electrotherapeutic Association at its recent Atlantic City meeting and by the American Academy of Physiotherapy at its annual meeting in New York. Since then the American College of Physical Therapy and the Western Physiotherapy Association have joined in the movement. The committee of the first named society includes Dr. F. B. Granger, physician-in-chief, physical therapy department, Boston City Hospital, and lecturer on the subject at Harvard University; Dr. B. B. Grover, lecturer on the subject, Western Physiotherapy School, Colorado Springs, Colo.; Dr. W. T. Johnson, lecturer on physiotherapy, University of Pennsylvania, Philadelphia; Dr. Disraeli Kobak, lecturer on physiotherapy, Rush Medical College, Chicago; and A. Bern Hirsh, New York City, chairman.

Stanford University has this year made physiotherapy an obligatory subject in the undergraduates' teaching course, and the other medical schools must soon follow.

When the Council on Physical Therapy shall have completed (1) its postgraduate curriculum for physicians wishing to add physiotherapy to other treatment methods, and also (2) a training course for non-medical physiotherapy technicians, preferably in hospitals, there can no longer be any reason why the newer measures should not be utilized by the profession everywhere.

TUBERCULOUS INFECTION

A physician attending the New York Tuberculosis and Health Conference in the Hotel Biltmore, New York City, on January 19 and 20, could not fail to receive valuable information regarding the modern conceptions of the medical problems involved in the care of tuberculosis. This conference was held under the joint auspices of eight health organizations, four of which were medical: the Medical Society of the State of New York, the Departments of Health of the State and the City of New York, and the United States Public Health Service. The lecturers spoke largely on medical topics, and in a style suited to physicians, although a large majority of the audience were ladies. The speakers left the impression that the control of tuberculosis is a problem in infectious diseases, and is to be handled as other communicable diseases. Infections occur in early adult life more often than in infancy and childhood, and effective prevention consists in the detection and control of the disease in its incipient stage before the bacilli are scattered to other persons. This is a medical activity and must be conducted by physicians.

These statements are commonplace, and have been repeated so often that they fail to impress physicians generally. But in addition to the older knowledge, experience has taught the specialists in tuberculosis that many of the rosy promises regarding the annihilation of the disease are not coming true, and that the methods of the past have been insufficient. The past five years have seen a clarification and a simplification of medical views regarding the disease. Definiteness is replacing beliefs, and standardization is taking the place of empiricism.

When physicians find the modern viewpoints set forth with definiteness, they will take up tuberculosis control with the interest which the situation demands.

MEDICAL LEGISLATION

The annual session of the Legislature is well under way, and medical bills are slowly materializing. An anti-vaccination bill has been introduced, as also have nine workmen's compensation bills that were introduced last year.

The plans of the chiropractors are not yet disclosed; but a delay in showing their hands is a part of their usual strategy. Their next move will probably be dependent on the action of the legislative committee to investigate chiropractic, of which two hearings were reported in the last issue of this Journal.

While the Medical Society of the State of New York is not actively sponsoring any major bills, as in years past, yet it must keep up an attitude of alertness in the defense of public health.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Methyl alcohol in drugs: There is nothing new under the sun, even the adulteration of ethyl alcohol with methyl alcohol. Twenty years ago the substitution of wood alcohol for ethyl alcohol was practiced even in pharmacy—something which is probably not true today.

This Journal for February, 1907, has an article on "Substitution and its Remedy," by Dr. Clinton T. Brandow, of Locke, N. Y., which contains the following quotation from a letter of the New York City Board of Health.

"The next inquiry was the alleged use of methyl (wood alcohol) in the preparation of tinctures, in the place of ethyl alcohol as required by the United States Pharmacopoeia. Among the samples of spirits of camphor, several were found to have been prepared with methyl, or wood alcohol. Examinations of samples were, therefore, continued.

"In all, two hundred and fifteen samples were collected and examined. Of these, one hundred and seventy-five were properly prepared with ethyl alcohol, while *forty* contained methyl alcohol. In thirty of the latter, methyl alcohol has been used exclusively; no ethyl or grain alcohol being present. Ten contained both ethyl and methyl alcohol.

"Five of the adulterated samples had "For external use" printed in small type on the label. Three, on the other hand, had printed directions for internal use on the label, as follows: "Dose, from five drops to a teaspoonful, first added to sugar and then mixed with water."

"These three had been prepared with methyl alcohol exclusively. The remainder were simply labeled "Spirits of Camphor."

MEDICAL PROGRESS

Tetanus in the "Barefoot Boy."—The author, A. Konigsweiser, does not take up the incidence of tetanus in all those who go barefoot in the summer, but the supervention of the disease after operation on the sole of the barefoot boy. He gives three case histories of post-operative tetanus in youths from 10 to 17 years of age in which the operative technique had been faultlessly aseptic. In the first patient there had been no accidental injury but an orthopedic intervention for a sequel of infantile paralysis. Lockjaw set in on the 12th day and ended fatally within 24 hours despite antitoxin and magnesium sulphate. The other cases were of the same character. In the second case tetanus developed on the 8th day with death four days later. In the third case the disease developed on the 6th day and again death occurred inside of 24 hours. Many similar operations in the clinic along this time were without any tetanus complication and the only bond between the three fatalities was the fact that the victims went barefoot. The observation period covered was about four years. The technique of asepsis before operation had included careful cleansing of the soles with soap followed by iodine tincture.—*Muenchener medizinische Wochenschrift,* October 8, 1926.

Treatment of Seasickness with Inhalations of Oxygen.—Dr. Weiss, a ship surgeon, states that in his experience there is no certain remedy for seasickness. Like all of his colleagues he is glad to test any newly recommended treatment and thus he included a trial of oxygen supplied free by a maker. He tested some of the worst cases, in which the patient vomits continuously, for here there is no chance to give drugs by the mouth. He tried inhalations of oxygen, and the patients found therefrom a certain amount of relief from the incessant vomiting, so that it became possible to give the usual remedies by the mouth. The author gives usually a mixture of quinine, valerian, spirit of ether, and rhubarb, at times with opium addition, which gives considerable relief, and this in association with the oxygen inhalations has proved quite satisfactory. He does not claim any striking improvement from the oxygen, no freak cures of seasickness, but thinks the remedy might save life in the subject with peptic ulcer, peritonitis, etc., who must now and then be found as a passenger on the large liners. He would like his colleagues in various parts of the world to make a trial of it.—*Muenchener medizinische Wochenschrift,* October 1, 1926.

A Combination Treatment of Whooping Cough.—W. Buttermilch, of the Berlin Nursling Home, states that but two methods of treatment of this affection are in common use and with general endorsement, namely, the fresh air and the Czerny suggestive method. Since the latter cannot be used until after the fourth year it may be left out of consideration for those below that age, when pertussis is most dangerous. Especially in institutions for nurslings is it desirable to have in readiness a method for general use and early in the outbreak. A sedative of some sort is indicated, and in the attempt to produce an emulsion of bromoform for routine use the author casually tested cod-liver oil rich in vitamin. The results were astonishing, and although the author was at first concerned with the treatment of children under the age of two years and in the incubative and catarrhal periods, benefit was seen in older children and in the convulsive stage. Thus far the number treated is 86, of which over half were under two years of age. Benefit was sometimes seen in the first two or three days, but as a rule not until the fifth or sixth day. There was but one death among the very young children, a boy of seven months succumbing to bronchopneumonia. Results show that treatment should be begun at the earliest moment possible with the dose as large as can be tolerated. The author makes suggestions as to why the oil is of such benefit, for the results cannot be ascribed principally or solely to the bromoform. He suggests that the vitamin in some way augments the resistance to the disease, as by affecting the mineral metabolism and antagonizing a predisposition to rachitis and spasmophilia. The convulsive component appears to be actively antagonized by the treatment.—*Deutsche medizinische Wochenschrift,* November 5, 1926.

Obscure Pyrexias of Childhood.—James W. Bruce, writing in the *Therapeutic Gazette,* November, 1926, n. s. 1, 11, states that because of the difficulties of diagnosis in young children, doctors are frequently tempted to assign teething and indigestion as causes of fever when further examination might have revealed something else to which the fever was secondary. There are three diseases common in young children which are liable to be overlooked because they show no localizing symptom or sign. These are lobar pneumonia, pyelitis, and otitis media. *Lobar pneumonia* can be, and frequently is, a silent disease. Its onset is commonly not as sudden as in adults; the initial chill is rarely seen; the cough is not distressing, and often is so mild as not to attract attention until the fifth or sixth day. when it becomes an outstanding feature. Dyspnea and a pulse-respiration rate of 2½ or 3 to 1 can often be seen in high fever from any cause. In pneumonia many children are dyspneic and show the 4 to 1 ratio. Pain in the side or chest is more frequently absent than present. Physical signs of consolidation are nearly always late in appearing—often not until the day before or the day of the crisis. The signs do not involve the entire lobe, but can only be heard over an area the size of a silver dollar. The prognosis of lobar pneumonia is better in childhood than in later life. *Pyelitis* is so common in little girls that repeated uranalysis should be made in all cases of fever in this sex, which lasts more than two or three days and for which no obvious cause can be found. In the treatment of pyelitis the writer has had no success with methenamine and prefers the straight alkaline treatment to the alternating use of acid and alkali. In *otitis media* pain is usually an outstanding feature, and the child screams continuously. However, children under 3 years of age can rarely localize their pains and nothing but an examination of the ear-drums will reveal the cause of the distress. Acute otitis media is so common following nose and throat infections that routine examination of the ear-drums should be practised in every child with fever unless some other very obvious cause can be found.

Diet in Pregnancy.—L. V. Friedman reports a clinical investigation in which the item of weight was followed exactly as other items are followed during pregnancy. If the weight was normal the expectant mother was instructed on the importance of keeping it so. She was urged to limit herself to one moderate helping of each dish but not to skip a meal, which custom it was found was always associated with a rapid gain in weight. If at the end of a month the patient had gained less than one-half pound per week (an arbitrary amount selected from these experiences) she was encouraged to eat more; but if she gained more than one-half pound per week, she was put on a strict diet, which eliminated all sweets, potato, macaroni, soup, but permitted two tablespoonfuls of cereal once a day and one slice of bread per meal. She was told to report once a week and the diet was then increased or decreased according to results. An ample calcium and vitamin content was provided. As a result of this plan, patients who were overweight showed a prompt improvement in comfort, there being less gas, less hyperacidity, and more physical activity. One unexpected finding was the essentially stationary weight during the last four weeks. Patients who were not allowed to gain more than one-half pound a week from the twelfth to the fortieth week showed a marked decrease in the length of the first stage of labor with coincident diminution in the number of operative deliveries. With a slight, but definite decrease in the weight of the baby, there is less likelihood of birth injuries and less chance of postpartum hemorrhage. There is the possibility that a sharply restricted diet may lessen vitality and increase anemia. though such results were not noted in this series. These conditions should be watched for, and if they tend to appear the diet should be regulated accordingly.—*Boston Medical and Surgical Journal,* November 25, 1926, cxcv, 22.

The Immediate Prognosis of Major Operations.—Octave Charles Cassegrain, in an article in the *New Orleans Medical and Surgical Journal,* December, 1926, lxxix, 6, endeavors to lay down facts helpful in making a correct prognosis in major surgical operations. He asserts that too often the patient is inadequately studied before operation. An individual may be said to be in good condition for a major surgical operation when the heart, kidneys, and blood are normal, or vary but slightly from the normal. The usual routine examination of the heart omits one point which gives the most information concerning that vital tissue, the myocardium, namely the estimation of pulse pressure. It is generally accepted that when the systolic pressure is below 100 operation is dangerous; it is equally dangerous to operate upon a patient with a pulse pressure of 80 or over, since this indicates that the myocardium has lost a great deal of its reserve strength. In determining the condition of the kidneys, it should be remembered that the chemical and microscopical examination of the urine may give practically normal findings and yet the kidneys may be performing but a small percentage of their normal function. A blood chemistry examination for nitrogen retention is a much safer guide. When the urea-nitrogen rises to 75, operation carries a decided risk—the higher above 75 the greater the risk. The estimation of creatinin is just as important. A rise of creatinin above 3 is of bad prognostic significance. Acidosis is indicated by a lowering of the blood sugar and of the carbon-dioxide combining power, while in the alkaline group the carbon-dioxide combining power is high and the chlorides are greatly reduced. Before operation is undertaken these investigations should be included, and when they vary from the normal (80 to 120 mg. for blood sugar, 560 to 650 mg. for chlorides, and for carbon-dioxide combining power 50 to 60) an effort should be made to establish a normal balance.

Mechanical Derangements of the Joints.—Melvin S. Henderson reviews the various mechanical derangements which are most common in the joints—slipping of the peroneal tendon, injuries to the semilunar cartilage in the knee, loose cartilaginous bodies in the knee, hip, elbow, or shoulder joint, habitual dislocation of the patella, "snapping of the hip," "trigger finger," habitual displacement of the lower extremity of the ulna inwardly and posteriorly in injuries to the wrist, and habitual dislocation of the shoulder. In the last named derangement, capsulorrhaphy, as usually performed, is followed by 50 per cent recurrence. On the theory that if the head of the bone can be prevented from traveling inward, dislocation will be prevented, Henderson is now using a tenosuspension method in which the head of the bone is suspended to the acromion process by the aid of a free graft made from the peroneus longus tendon. The tendon is placed through the holes bored in the acromion process and the head of the bone. It is pointed out that the peroneus longus tendon is not essential in its original position, its functions being carried on by the peroneus brevis and it makes an excellent piece of tissue for an artificial ligament. In habitual slipping of the peroneal tendon, this structure should be replaced in its groove, and a flap of periosteum and fibrous tissue turned down from the fibula and sewed to the os calcis. Osteocartilaginous bodies in the joints are readily diagnosed by the *x*-rays, and should be removed. For dislocated patella, the operation of choice consists in transferring the insertion of the quadriceps inward, so that on contraction it will have a tendency to pull the patella inward. In "snapping of the hip," which is the result of slipping forward of the trochanter along the margin of the tensor fasciæ femoris, the operation consists in cutting down on this fascia, dividing it, and sewing the lower part of the fascia behind the trochanter. This, however, is not very satisfactory because of the difficulty of finding the lesion that is back of the complaint. Habitual displacements of the lower end of the ulna inwardly and posteriorly may be prevented by drilling holes transversely through the lower end of the radius and ulna and slipping a free strip of fascia lata through the holes, thus forming an artificial ligament. In dislocation of the head of the radius, excision of the head is the only method of relieving the symptoms. In acromioclavicular and sternoclavicular dislocations, strapping is of no benefit; if this luxation causes discomfort recourse must be had to open operation.—*Annals of Surgery,* December, 1926, lxxxiv, 6.

Overlooked Syphilis.—H. Hecht relates a number of cases of mistaken diagnosis from which he concludes that serodiagnosis should be practised in routine. The first patient mentioned had a swollen gland beneath the chin. Later a primary lesion of the lip became evident, but at the first diagnosis this had been somehow overlooked. The diagnosis of the gland as tuberculous by an expert in tuberculosis led to an intensive treatment for tuberculosis before the appearance of the roseola. The second patient showed a gangrenous lesion of the palate which was pronounced due to the Vincent symbiosis. As the treatment—neosalvarsan injections—applied equally to both diseases no great harm was done, the lesion disappearing, but later developments showed that the lesion had been a gangrenous chancre. The third patient showed nodules on the nose diagnosticated as lupus after a negative Wassermann. An ulcer formed and healed under lupus treatment (*x*-ray, cautery), but recurrence proved it to be syphilitic. The fourth patient presented sores in the mouth which were touched with nitrate of silver apparently without any diagnosis. Healing did not follow and it was only by accident that a physician not in attendance chanced to recognize the true condition of the patient. The latter was about to be married and his bride narrowly escaped infection. The fifth patient was of the same type. In his case, as doubtless in the preceding, some sores in the mouth were held to be harmless aphthæ, but were found to be mucous patches. A newly-married young woman developed a headache which had been regarded and treated as neuralgic. Later there were found abundant evidences of recent syphilis. Of interest is the fact that the syphilis of the husband went back fifteen years. Another patient also had violent headache with fever and a vague rash. No diagnosis was made for a month. The author reports also five other similar cases.—*Deutsche medizinische Wochenschrift,* November 12, 1926.

Is the Decline in Syphilis Due to Arsphenamine?—Professor J. Jadassohn of Breslau, has sent out a questionnaire which covers most of Europe in reference to the prevalence of syphilis and the causes of the apparent decrease in frequency. He received 97 per cent of replies. In 14 European countries the syphilographers are unanimous in the statement that syphilis has fallen off in frequency in the past 10 or 15 years. In Italy, Russia, and Bulgaria the full evidence is lacking or opinion is divided, so that these countries cannot be included. In France there was a very marked decline between 1919 and 1923 although the figure has since increased somewhat. Jeanselme appears to have been convinced that the marked decline was the result of the use of salvarsan while the recent rise has been due to the substitution for salvarsan of bismuth. The decline is best seen when we compare the war and postwar periods with the present time. Thus in Sweden there were 1941 new cases in 1913, the number having risen in 1919 to 5827, to drop to 676 in 1925. In Belgium, Holland, and Sweden the decline has been 75 to 80 per cent which is much greater than in any other country. Even the least pronounced improvement amounts to 25 to 30 per cent as found in Hungary and Norway. No figures can be obtained for metasyphilis. That the improvement cannot be due to moral factors appears from a study of the gonorrheal incidence which shows no corresponding betterment. There is a consensus that salvarsan has been a marked factor in the decline of syphilis, but not the sole one, others comprising education of patients, education of physicians, and better facilities for treatment, which are differently valued by different observers. — *Klinische Wochenschrift,* November 26, 1926.

Diabetes Resistant to Insulin.—F. Keller speaks of the numerous cases of diabetes which resist insulin treatment, although the proportion cannot be very large for the author found only one such case in a material of 71 treated. The term resistant must be carefully defined, for the author uses it in the absolute sense while others refer only to a relative refractoriness which requires that large doses be given to get results, there being but little response to ordinary doses. There is also a temporary resistance, as for example when some transitory factor works against insulin such as large quantities of garlic taken with the food, or when the patient is under the influence of adrenalin, thyroxin, or pituitrin, all of which antagonize the action of insulin. In the author's case there was nothing to account for the absolute refractoriness of the patient to the drug in question. There was no evidence that the other hormones were opposing the insulin, but in the absence of any evidence pro or con, the author was inclined to believe provisionally that certain endocrines antagonized the insulin even if the other manifestations of disturbed hormonic activity were latent. The patient who was a young subject, had a typical case of severe youthful diabetes with acidosis, and neither the amount of blood sugar nor the acidosis could be modified by even 110 daily units of Lilly's insulin. The author did not persist with the drug for fear of injury to the patient. During the brief insulin cure no special diet was ordered, but after the first failure of the treatment the patient was placed on strict diet with fasting periods. The urine could not be cleared up and the great daily fluctuations in the amount of sugar without apparent cause placed the case among the paradoxic glycosurias. The Hungarian preparation of insulin gave no better results although both of the makes mentioned had acted perfectly in other cases.—*Wiener klinische Wochenschrift,* November 25, 1926.

Atypical Glaucoma.—James B. Stanford finds that the typical text-book case of glaucoma is the exception rather than the rule. The usual signs—increased intra-ocular tension, dilated pupils, shallow anterior chamber, dilated episcleral veins, wide and deep excavation—are seldom all present, at least not until late in the course of the disease. In some cases it is impossible to demonstrate intra-ocular tension and repeated tests should be made with the same instrument. A tension higher than 15 to 26 mm. mercury with the Schiotz tonometer should be regarded as suspicious. If one waits for the anterior chamber to become shallow, or for a deep and wide excavation, the patient will suffer considerable or even irreparable loss of vision. Dilated espiscleral veins, though likely to be present, may be absent. Pallor of the disc is an early sign. Contrary to the text-book teaching, glaucoma frequently occurs in young people. In some cases, especially those with acute exacerbation, it is well to look for signs of uveitis. All patients in whom mydriatics have been used for long periods should be watched for symptoms of glaucoma. Arterial and venous pulsations are the exception rather than the rule. In early cases the history must be carefully considered. The anterior segment of each eye should be studied in comparison one with the other, refraction should be determined, loss of accommodation and the change of latent into manifest hyperopia should be investigated, the diameter of the cornea should be determined, the condition of the media examined, and also the condition of the fundus and disc, the tension, and the perimetry of the whole field. In the matter of treatment, the teaching has perhaps been misleading. One would gather that iridectomy in acute glaucoma and miotics in glaucoma simplex would cure these conditions. The multiplicity of operations is proof that none is satisfactory, and miotics probably prevent many cures. When patients are being treated with eserine or pilocarpine they should report once a month for observation and examination. The young oculist should try the procedures which have been most successful on a series of cases to determine which are most successful in his hands and should then limit himself to the use of two or three of these methods.—*New Orleans Medical and Surgical Journal,* November 20, 1926, lxxix, 6.

LEGAL

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THE GRIEVANCE COMMITTEE GETS UNDER WAY

The Grievance Committee has begun to function. With a full consciousness and understanding of the high responsibilities entrusted to them, with an anxious desire to meet and solve the delicate and difficult problems committed to their charge, and with a firm determination to justify the high hopes with which the idea was conceived, the members of the Grievance Committee have begun their work.

Upon nominations made in pursuance of the statute, the following Committee has been appointed:

Orrin S. Wightman, M.D., New York, Chairman.
Frederick H. Flaherty, M.D., Syracuse, Secretary.
Allen A. Jones, M.D., Buffalo.
Moses Keschner, M.D., New York.
Grant C. Madill, M.D., Ogdensburg.
William S. Overton, M.D., Binghamton.
Martin B. Tinker, M.D., Ithaca.
Roy Upham, M.D., Brooklyn.
Arthur B. Van Loon, M.D., Albany.
Roy Williams, D.O., Rochester.

The statute authorizes the Chairman of the committee to designate three or more members of the committee, including at least one member who represents the same school of practice as the physician against whom the charges are preferred, to hear charges and report thereon to the committee. Acting in pursuance of the statute, four sub-committees were appointed for the convenience of hearing cases. These are as follows:

A western group consisting of Dr. A. A. Jones, of Buffalo, Dr. Ralph Williams, of Rochester, and Dr. M. B. Tinker, of Ithaca.

A Mid-State group consisting of Dr. G. C. Madill, of Ogdensburg, Dr. F. H. Flaherty, of Syracuse, and Dr. W. S. Overton, of Binghamton.

An East-Central group consisting of Dr. Arthur B. Van Loon, of Albany, Dr. F. H. Flaherty, of Syracuse, and Dr. W. S. Overton, of Binghamton, or Dr. G. C. Madill, of Ogdensburg.

A Southern group consisting of Dr. O. S. Wightman and Dr. M. Keschner, of New York, and Dr. R. Upham, of Brooklyn.

There can be no doubt from the personnel of this committee but that the rights and privileges of the medical profession are in safe hands.

These doctors, from their long experience in the medical profession and from a thorough acquaintance with its difficulties and its problems, will face the task which the statute has committed to them with a firm desire and ample capacity to do justice in any case which comes before them. They will bear in mind that it was for the protection of the doctor, fully as much as for the protection of the patient, that this tribunal was conceived, set up and instituted. No one will be quicker than they to discriminate between unwarranted and baseless charges on the part of patients unjustifiably critical, and those which contain real merit.

No doctor honorably practicing his profession in this state need give himself the slightest concern but that any unjust, unfounded charge which may be preferred against him will receive the dismissal that it merits. On the other hand, every honorable practitioner may take a new pride in his profession which comes from the consciousness that its standards will be upheld and that any doctor who is disgracing his profession and thereby bringing the whole healing art into disrepute, will be dealt with by this committee as he deserves.

With the creation of this committee we now have a self-governing profession—a government of doctors by doctors and—in the largest and most equitable sense—for doctors. The idea upon which this tribunal was conceived and the personnel which has now been chosen are such as will and should meet with the cordial approbation and the sincere confidence of every member of the medical profession. Even those who were originally opposed to this plan, as they observe the careful, considerate and just manner in which it is now being carried out, will (in the opinion of the writer) ultimately add their approbation to that of those who conceived it.

There is no profession more tenacious of its good name or more justly jealous of any infringement upon its prerogatives than the medical profession. There is nothing about the Committee on Grievances, its personnel, its jurisdiction, its scope or its actual operation which need give anyone concern or cause to fear that the valued liberties, privileges and rights of the medical profession will be invaded.

Several misconceptions of the nature of the committee's work have been brought to our attention. One of these seems to be that the Grievance Committee itself initiates charges against physicians. This is not true. The Grievance Committee neither does, nor has it power to, initiate charges against anyone. The statute is very clear that charges may be preferred "by any person, corporation or public officer." The Regents are likewise given power to initiate them; but the committee itself does not and cannot. The duty and authority of the committee begins and ends with its jurisdiction to hear and determine charges against duly licensed physicians.

The charges which the Grievance Committee may hear are those for violation of the provisions of Section 174a of the Public Health Law, except subdivision 1 of that section. The matters which come within its jurisdiction are those pertaining to charges of: (a) fraud; (b) conviction for crime; (c) habitual drunkenness or drug addiction; (d) fraudulent advertising, etc., and (e) abortion or unlawful contraception. It is for the hearing and determination of charges embracing one or more of these accusations that the committee is vested with authority.

Any physician against whom charges are preferred, especially if they are unjustly preferred, quite naturally entertains a feeling of annoyance (perhaps this word is not strong enough). But every physician who unfortunately finds himself in that position and who knows that the charges are without merit and that he has not committed any of the prohibited acts coming within the jurisdiction of the committee, may enjoy that feeling of security and peace which should come with the consciousness that the charges will be heard by a committee of his peers, by members of his own profession, who will understand his problems and be sympathetic with his difficulties. If he has not done any of the prohibited acts, he need not fear but that he will be given a complete and perfect opportunity to prove his innocence.

The underlying theory of the Grievance Committee plan was not only to protect the public, but fully as much to protect the doctor. To the accomplishment of this end the committee was vested with considerable discretion. If, for example, the charges are of such a nature as, in its opinion, are insufficient to warrant even the holding of a hearing, it has power to dismiss the charges without putting the accused doctor to the burden, the annoyance or the difficulties of a trial.

Where the committee feels that the charges are such that, in the language of the statute, they "shall deem a trial necessary," these charges may then be referred to a sub-committee of the whole committee, which is authorized to conduct the hearings and at which the accused doctor will be given a full opportunity to be heard, to produce witnesses and, if desired, to be represented by counsel. At this hearing full latitude is given as the law declares that the committee "shall not be bound by the laws of evidence in the conduct of its proceedings." But this does not mean that the committee can find against a doctor unless there is clear legal evidence of guilt, as the statute expressly declares that *its determination "shall be founded upon sufficient legal evidence."*

When the report of the sub-committee is furnished to the whole committee, the whole committee then has power to act upon the recommendation of the sub-committee and it may then, if it desires, take additional evidence. If the committee then decides that the charges are not sustained, they end right there. That terminates the whole matter. In such a case the committee "shall order a dismissal of the charges and the exoneration of the accused." Additional power is given by the statute in these words: "The said committee shall have power, where a proceeding has been dismissed, either on the merits or otherwise, to relieve the accused from any possible odium that may attach by reason of the making of charges against him, by such public exoneration as it shall see fit to make *if requested by the accused so to do."*

But even if the committee finds that the charges are sustained, the committee itself does not possess the power to revoke a license. This power resides in the Regents. The power of the committee is limited to the making of a recommendation to the Regents. But no recommendation of guilt can be made by the committee to the Regents except by a "unanimous vote." When such a recommendation is made to the Regents, the Regents then still have the power of revision, as the statute expressly provides that "the Regents after due hearing shall in their discretion execute an order *accepting* or *modifying* such determination of said committee."

But in any case, where a recommendation of guilt has been made by the Grievance Committee and has been approved by the Regents, the accused has a further opportunity to be heard. In such a case the law provides that he may have "an order of certiorari for the purpose of reviewing such determination returnable before the Appellate Division of the Third Judicial Department." He has a right to apply for a stay of the judgment revoking or suspending his registration or reprimanding or disciplining him "upon application to such Appellate Division after notice to the attorney-general."

In addition to the disciplinary powers possessed by the Committee on Grievances, it has certain powers of arbitration. These powers will be the subject of discussion in our next editorial.

The writer, as a member of four bar associations, including the Association of the Bar of the City of New York, believes that he can express a competent opinion that no honorable practitioner of law would at this date consent to the abolition of the grievance committees provided for the governing of the legal profession. Every lawyer realizes that these committees are as much of a protection to him as they are to the public. If he is carrying on his practice honorably, he may enjoy all the security which comes from the consciousness that unjust or unfounded charges will be summarily dismissed. As the medical profession becomes more accustomed to the idea, it is believed that every doctor will entertain the same feeling of respect and confidence towards the Committee on Grievances as has long been entertained by the lawyers.

Let us, therefore, accord to the Committee on Grievances all the cooperation, confidence and respect to which it is justly entitled. Let us appreciate that what it is doing and trying to do is not against, but for, the medical profession.

FRACTURED FEMUR—SLIGHT OVERRIDING—CALLUS FORMATION —SUBSEQUENT OPEN OPERATION AND LANE PLATING.

A boy of about thirteen years of age was run over by an automobile and his right thigh fractured. Through his guardian he charged the hospital in which he was a patient, and the surgeon who attended him, with negligence in the care and treatment of his injury and sought to recover damages for their alleged negligence. The accident occurred on the 7th of May and he was taken to the hospital in an ambulance.

In the complaint it was charged that the hospital had failed to perform its duty to him in that it had not furnished him with competent and skillful physicians and surgeons or the proper instruments and implements for the care and treatment of his injury and had permitted the surgeons, physicians and nurses to neglect their duties toward the plaintiff; that the defendant physician was negligent, careless and unskilled in his treatment of the injury in that the fracture of the right femur was permitted to remain in the same condition as when the boy first submitted himself for treatment; that a plaster cast was permitted to be placed upon the leg without first properly uniting the fractured bone and the patient was thereby subjected to extreme and unnecessary torture in and about the fractured leg and that the ununited bones were permitted to remain in the plaster cast for a long period of time, so that it became necessary to procure the services of a competent and skillful surgeon to operate upon the boy and properly reduce the fracture; that the negligent and improper treatment of the defendant physician caused a two-inch shortening of the patient's leg. It was claimed that the patient had permanently lost the proper use of his leg and had suffered great bodily and mental anguish, for all of which he asked damages from the defendant physician and the hospital.

Upon entry into the hospital the boy came under the care of the defendant physician, a surgeon of skill and experience in the treatment of conditions of this nature. At the time of entry into the hospital the patient was in pain, the pain being referred to the region of the right hip and an angular deformity was noticed in the upper part of the thigh. He was carried into the hospital on a stretcher, not being acutely ill but in pain, his lower extremity being in a temporary splint. A general examination made at that time was negative except for the right lower extremity, where there was found fullness in the upper part of the right thigh, with angular deformities outward. On this day, using a Hawley table, the fracture was reduced, the leg placed in Hodgens splints with a Balkan frame, using ten pounds in extension and ten pounds in counter-extension. Three days later three additional pounds were applied to extension. On May 12th an X-ray was taken and the interpretation of the X-ray was: "Radiographic examination of right thigh reveals a transverse fracture of the shaft of the femur at the juncture of its upper and middle third. The upper fragment is displaced anteriorly and slightly inward. There is overriding of about one-half inch." The patient complained of burning around the ankle. The adhesive plaster was cut on the posterior surface and a superficial necrosis was found, which was treated with the proper medication. On May 19th the adhesive tape was readjusted. On May 23rd the Hodgens Splints were removed and a plaster cast applied by the defendant physician. On the following day the patient complained of the cast cutting his side and the defendant physician then padded the same with cotton. On May 26th he complained of pain in the ankle which, upon examination, was found to be swollen. Under proper care and treatment the edema of the ankle had subsided and entirely disappeared by June 4th. There was a slight ulceration, however, in the area of Achilles tendon.

The patient continued to get well, there being no complaints of pain or swelling and on June 18th the cast was removed, at which time the union at the site of fracture appeared complete, with some excess callus formation. The boy was then permitted to be out of bed and in a wheel chair. Five days thereafter, against the advice of the defendant physician and the hospital authorities, the boy was removed from the hospital. The parents signed a release which stated the fracture was united with excessive callus formation, the position of both axes good; that there was a slight overriding which would be compensated without deformity; that at his age deformity would disappear. This was the last time the boy received any treatment at the defendant hospital or was seen or attended by the defendant physician.

An action was brought against the parents by a physician who had attended the boy subsequent to his release from the defendant hospital, to recover for his services. In the course of the testimony in this action this physician testified that on June 24th (which was the next day after the boy's removal from the defendant hospital), he took an X-ray of the boy's right leg, which he stated showed a fracture of the femur and the position of the ends of the bone at the time; that the ends of the bone were not touching but were overlapping and that there was some callus union. He also testified that in the following September he took another X-ray of the boy's right leg and the X-ray taken at that time showed the femur, after an operation, with the ends of the bone in contact with the application of a plate to hold the ends together. It was ascertained that within a few weeks after the boy had left the defendant hospital, he entered another hospital, under the care of another surgeon, who performed an open operation which consisted of the breaking up of the callus and refracturing of the femur and the insertion of a Lane Plate and the application of a Spica cast; that the boy remained in the hospital for about ten days after this operation and was then sent home; that about two months thereafter he returned to the office of the surgeon performing the open operation and the cast was removed; that the ends of the bone had grown together nicely; that the boy had very little shortening, if any, and walked without any signs of lameness. The Lane plating at this time had not been removed.

When this action came on for trial the plaintiff, by his witnesses, sought to establish negligence upon the part of the defendant surgeon in his reduction and treatment of the fracture. The plaintiff, in the trial of the action, sought by the physician who had taken the X-rays subsequent to the boy's leaving the defendant hospital and by the testimony of a physician who claimed that he was not an expert and then proceeded to give expert testimony, that the treatment rendered by the defendant surgeon was not in accordance with the proper and approved practice. The plaintiff also called as a witness the surgeon who had performed the open operation and sought to have this surgeon testify as an expert in behalf of the plaintiff. Under cross-examination this surgeon gave expert testimony supporting and approving the treatment and procedure of the defendant surgeon and that the result obtained by the defendant surgeon was a good result and was not due to any carelessness or negligence on the part of the defendant surgeon and that he performed the open operation and Lane plating only because of the insistence of the parents.

Upon the completion of all the testimony the case was submitted to the jury who, after several hours of deliberation, returned a verdict in favor of the defendant. The result of the trial of this action, which consumed three days, vindicated and justified the treatment of the defendants.

NEWS NOTES

CORTLAND COUNTY MEDICAL SOCIETY

At the December meeting of the Cortland County Medical Society the following officers were elected to serve the society during 1927: President, Dr. James Walsh, Cortland; Vice-president, Dr. Harold E. Andrews, Homer; Secretary, Dr. Albert A. Bailey, Cortland; Treasurer, Dr. B. R. Parsons, Cortland; Delegate to State Society, Dr. R. P. Higgins, Cortland; Alternate Delegate, Dr. D. R. Reilly, Cortland; Board of Censors, Drs. B. R. Parsons, C. D. VerNooy, F. F. Sornberger, R. P. Higgins and D. R. Reilly, all of Cortland.

This meeting, as decided in the September meeting, took the form of a dinner to our older members, and was held at the Cortland House on the evening of December 15, 1926. Dr. Reilly, acting as toast master, introduced Dr. Walsh who made some remarks about the medical history of the county and the men who had most to do in making such history, and then addressed himself to Dr. H. T. Dana, our dean, on physicians in the county, and in well chosen words presented to Dr. Dana in the name of his fellows of the Cortland County Medical Society a meerschaum pipe. Dr. Dana, always graceful in every situation, responded with a fitting acknowledgement of the presentation, reminded the members that they were remembering his weakness as well as his virtues, and made interesting historical remarks.

Dr. Fisher, president of the state society, spoke of medical activities in the state, the new practice act, grievance committee, anti-diphtheria campaign; and mentioned that of all the thousands of dollars which had been appropriated for the immunization of children against diphtheria, none of it went to the physician who administered the toxin-antitoxin; and that while everyone else who touched the work anywhere from the manufacture to the administration, got his or her pay, the physician alone gave his time gratis for the good of humanity.

Dr. Fish, of Ithaca, made brief remarks about the affairs of the district branch of the state society of which he is president.

Dr. Coville, of Ithaca, told some stories and spoke of the early history of this part of the state.

Dr. Frederick Flaherty, of Syracuse, spoke about the grievance committee which was recently created and which he said was already in action.

NIAGARA COUNTY MEDICAL SOCIETY

The annual meeting of the Medical Society of the County of Niagara was held at the Niagara County Sanatorium, Lockport, N. Y., on the evening of November 9th, with Dr. H. U. Cramer of Lockport, president of the society, presiding.

The following annual report of the secretary and treasurer was read and accepted.

At the close of the year 1926 the Medical Society of the County of Niagara has eighty-four in good standing, which is a loss of three members over last year. We have lost three members by failure to pay their dues. Each of these men have received three notices since their annual bill was sent to them. We have lost one member by transfer, Dr. Jennie E. Mabee, who was transferred to the County of New York. We have also lost one member by death: Dr. Jesse R. Harris.

We have gained three members by application: Dr. Peter J. Sciarrino, Dr. Ernest M. Rieger and Dr. Joseph P. La Duca, all of Niagara Falls. The Secretary has in his possession, to present to the Censors, the applications of Dr. Forest Wm. Barry of Lockport, Dr. Frederick N. G. Jerauld and Dr. Joseph V. Farruggia of Niagara Falls. We have gained one member by transfer, Dr. Anne Viele of La Salle, transferred from Erie County.

The treasurer has collected $1,664.85 and has dispersed $1,395.47 leaving a balance of $269.38. There are $57.50 worth of bills unpaid, leaving a net balance of $211.88, which is a gain over last year of $13.88.

We have had five meetings during the year and have been addressed by Drs. MacDonald of St. Catherine's; Dr. Simpson of Buffalo; Dr. N. G. Russell, of Buffalo; Dr. Oscar Baer of Niagara Falls; Dr. Gordon Heyd of New York, and Dr. O'Gorman of Buffalo.

Among State movements, we have endorsed the anti-diphtheria campaign; we have united with Erie for a post-graduate course in pediatrics, and we have sent out large volumes of letters in State Bills before the legislature.

We have obtained the State Meeting for 1927 for Niagara County which meeting is to be held at Niagara Falls, April or May, 1927.

Your Secretary has attended the State Conference of Secretaries held at Albany in September.

The censors reported favorably upon the application of Drs. Barry, Farruggia and Jerauld, and they were declared elected to full membership in the Society.

The Secretary reported the transfer of Dr. Mabee to the County of New York.

President Cramer reported that the joint post-graduate courses to be held by Erie and Niagara counties would start November 30 and would last for four weeks. Full information will be sent to the members as soon as the program has been received.

All bills were ordered paid.

Dr. Preisch reported for the Committee appointed to investigate the A. M. A.'s report on Medical Relief in Disaster. The Committee reported favorably upon the plan as outlined by the A. M. A. and advised that the plan be adopted.

It was moved that the report be recorded and that the Committee be discharged with thanks. Carried.

It was moved that the A. M. A. plan for medical relief in disaster be adopted. Carried.

It was moved that the chair appoint a nominating committee. Carried. Drs. Leo-Wolf, Preisch and Scott were appointed.

Dr. Schnell reported upon the progress of the work of the committee on arrangements for the State meeting in the spring.

The nominating committee reported the following nominations:

For president, Dr. Frederick Leighton; vice-president, Dr. Reuben W. Shelley; secretary and treasurer, Dr. George L. Miller; delegates, Dr. Frank Guillemont, Dr. Frederick J. Schnell; censors, Dr. Cramer, Dr. Crosby and Dr. FitzGerald. These were unanimously elected.

Dr. Cramer now introduced Dr. R. W. Shelley, Superintendent of the Niagara County Tuberculosis Sanatorium, who presented a most interesting paper upon the subject of "Tuberculosis"; and also showed a large number of X-ray pictures. An unusually free discussion followed the paper, being led by Drs. Cramer, Leighton, Guillemont and Leo-Wolf, and entered into by most of the members present.

Dr. Leo-Wolf moved a vote of thanks to the retiring officers for their excellent service to their society. Seconded and carried.

The meeting then adjourned to a lunch presided over by Dr. Shelley in the Sanatorium dining room.

MONROE COUNTY MEDICAL SOCIETY

At the annual meeting of the Medical Society of the County of Monroe, held on December 21, 1926, and marked by exceptional attendance, an unusually impressive memorial tribute was rendered the late Dr. Owen E. Jones. The picture of Dr. Jones was shown on the screen, followed by the reading of this memorial:

"By the death of Dr. Owen E. Jones the Medical Society of the County of Monroe loses one of its most distinguished members and the City of Rochester one of its most useful public servants.

"Dr. Jones was, in the best sense of the word, a servant of his sick, always ready to aid them in their affliction at any time of the day or night, with no thought of the cost to himself in loss of sleep, hardship, or fatigue. Had he not spent himself so freely, he would be among us still. In a profession that has a rightful claim to a reputation for self-sacrifice, he was pre-eminent for the constant forgetfulness of his own comfort and ease in the effort to relieve the disease of his patients.

"He was a surgeon of unusual courage, resourcefulness and skill, instant in decision, wise in council, untiring in the warfare against human ills.

"He gave unstintingly of his time and of himself in furthering the larger interests of the members of his profession, and when his devotion to those interests won for him the highest office in the Medical Society of the State, his unceasing activity and the conspicuous ability which he brought to the task won for him the gratitude and respect of the entire profession.

"He was by nature genial, kindly, friendly and steadfast. We shall not soon look upon his like again, but his memory is of good report among us and will stand for years to come as an inspiration to high endeavor."

During the display of the picture and the reading of the memorial, all present observed a period of silence as a tribute to the former President of County and State Societies and ever-active worker in the Society's affairs.

After routine business, annual reports of standing committees, etc., the Society elected officers for 1927 as follows:

President, Dr. Warren Wooden; Vice-President, Dr. Cyril Sumner; Secretary, Dr. J. P. Henry; Treasurer, Dr. W. H. Veeder; Censors, Drs. E. H. Howard, F. S. Winslow, J. M. Flynn, A. S. Miller and A. G. Morris; Milk Commission (for three years), Dr. H. H. Covell and Dr. A. D. Kaiser; Delegates (for two years), Drs. C. R. Barber and J. P. Brady; Alternates (for two years), Drs. J. R. Booth and J. R. Mayer.

The following were elected to membership: Drs. F. R. Daniels, C. B. Hert, Margaret M. Loder, C. H. Peachey and J. W. Thompson.

The scientific program consisted of an extremely interesting and practical symposium on syphilis, presented by members of the society. The first paper, by Dr. Edward Gibbs of the Rochester State Hospital, treated of "Recent Advances in Diagnosis and Treatment of Neurosyphilis." Dr. Gibbs emphasized the importance of early diagnosis and intensive treatment and dwelt at length on the recent treatment of paresis by tryparsamine and the artificial induction of malaria. He took up in detail the tryparsamine method as employed at the Rochester State Hospital and exemplified his remarks by presenting a patient with his case record.

Dr. B. J. Slater spoke on "Syphilis in Industry." He gave a brief but forceful presentation of the important bearing of syphilis on compensation problems and pointed out how treatment worked out to the benefit of the employee, employer, and public health.

Dr. Franklin Plumley presented "Clinical Observations on Syphilis," stressing the necessity for extreme care and accuracy in diagnosis, with intensive and prolonged treatment, succeded by intelligent and long-continued observation and follow-up.

Following the scientific program, Dr. Audley D. Stewart, who has recently returned from a hunting trip through British East Africa, entertained the society with an exhibition of motion pictures taken on his trip which, to phrase it mildly, proved interesting and exciting.

BRONX COUNTY MEDICAL SOCIETY

The annual meeting of the Bronx County Medical Society, held at Concourse Plaza, on December 15, 1926, was called to order at 9 P. M., with the President, Dr. Cunniffe, in the chair.

Annual reports for the year 1926 were submitted as follows:

1. Report of the Treasurer, Dr. J. A. Keller.
2. Reports of the Secretary, Dr. I. J. Landsman, and the Comitia Minora.
3. Report of the Board of Censors, Dr. S. M. Jacobs, Chairman.
4. Report of the Counsel, Mr. J. Clifford McChristie.
5. Committee on Membership, Dr. M. R. Bookman, Chairman.
6. Committee on Public Health and Medical Education, Dr. Louis A. Friedman, Chairman.
7. Committee on Medical Economics, Dr. Nicholas Lukin, Chairman.
8. Committee on Audit, Dr. P. Y. Kamenoff, Chairman.
9. Milk Commission, Dr. William Hinz, Chairman.
10. Committee on Legislation, Dr. Harry Aranow, Chairman.
11. Committee on Hospitals, Dr. I. H. Goldberger, Chairman.
12. Special Committee on New Members, Dr. A. Rostenberg, Chairman.
13. Building Committee, Dr. S. Gitlow, Secretary of Committee.

In each case, it was moved and carried that the report be accepted with thanks.

Election of candidates being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the following candidates for membership:

Drs. Abraham I. Cohen, Joseph Glanzer, Karl F. G. Hoffmann, Augustus C. Kritz, Sebastian Lang, Julius Lehman, David Mandel, Jacob J. Miller, Edward Opin, Jean Bertram Ruhl, Leonard Shaftab, Elias Shayness, Maurice Umansky.

Election of Officers, Censors and Delegates for the year 1927 being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the candidates named by the Nominating Committee. The following candidates were then declared elected:

President, Dr. Louis A. Friedman; 1st Vice-President, Dr. Samuel Gitlow; 2nd Vice-President, Dr. Harry Aranow; Secretary, Dr. I. J. Landsman; Treasurer, Dr. J. Adlai Keller; Board of Censors, Drs. J. Bernard Cohen and Irving Smiley; Delegates, Drs. J. Lewis Amster, Cornelius J. Egan, Vincent S. Hayward, Edmund E. Specht; Alternates, Drs. Milton J. Goodfriend, Nathan B. Jacobson, Nicholas Lukin, Samuel F. Weitzner.

Election of Members of the Nominating Committee was then declared to be in order. The following gentlemen were nominated:

Drs. Harry Projector, Sydney Steiner, Harry Shiffman, Martin J. Loeb, Joseph H. Gettinger, William Lenetska, Michael Rosenbluth, Max Nisselson, Sidney Weil, Samuel Kulkin, Benjamin Diamond.

It was moved and carried that the Secretary be instructed to cast one ballot for the candidates named.

Under New Business, the following Resolutions were introduced:

"*Whereas,* The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Trevor C. Yates, M.D.,

"*Resolved,* That the Bronx County Medical Society record the sense of its loss in the death of Dr. Yates and that a minute thereof be placed on the records of the Society and be it

"*Further Resolved,* That a copy of these Resolutions be transmitted to the family of our departed member."

It was moved and carried that the above Resolutions be approved.

It was moved and carried that a letter of sympathy be sent to Dr. Philip Eichler on the loss of his mother.

The program of the evening as follows:

1. Demonstration of Pathological Hearts by Slides—Dr. Nicholas Lukin.

2. Talks on Campaign of Active Immunization Against Diphtheria by Use of Toxin Anti-Toxin—Drs. Edward R. Cunniffe and Louis A. Friedman.

The Demonstration by Dr. Lukin was discussed by Drs. Pardee and J. B. Cohen. Dr. Lukin closed the discussion.

CLINTON COUNTY MEDICAL SOCIETY

The annual meeting of the Clinton County Medical Society was held November 16, 1926, at Plattsburgh, N. Y. An informal luncheon preceded the meeting.

An informal talk on the subject of postgraduate instruction brought out requests for some subject in internal medicine or fractures. The physicians present reported about 150 immunizations with toxin anti-toxin in private practice since the last meeting in June, 1926.

Dr. I. A. Rowlson of Plattsburgh was elected to membership in the Society.

The following officers were elected for the ensuing year: President, Dr. G. R. Allen; Vice-President, Dr. E. S. McDowell; Secretary, Dr. Leo Schiff; Treasurer, Dr. F. K. Ryan; Censors, Drs. W. H. Ladue, R. S. Macdonald and W. H. Everett; Delegate, Dr. Leo F. Schiff; Alternate, Dr. W. H. Ladue.

The scientific part of the program consisted of a paper by Dr. R. S. Macdonald of Plattsburgh, on the subject "Standardization in Certain Surgical Procedures," dealing principally with the treatment of fractures. This paper was discussed by Dr. L. G. Barton of Plattsburgh.

Dr. E. S. Welles of Saranac Lake, by invitation, addressed the society on the subject, "Surgery in Pulmonary Tuberculosis," discussing thoracoplasty and several other surgical procedures, with their indications, contra-indications and results. This lecture was illustrated by lantern slides.

Dr. Leo F. Schiff, of Plattsburgh, presented a comparison of the results obtained by the Kahn test and those obtained by the Wassermann test on a series of sera, showing 91 per cent of relative agreement between the two tests, and indicating that the Kahn test was less sensitive than the Wassermann in long standing cases under treatment.

On motion the Clinton County Laboratory was requested to continue performing the Kahn test as a regular procedure in the laboratory.

Attendance, 18.

YATES COUNTY MEDICAL SOCIETY

The following account of the dinner of the Yates County Medical Society, held on January 4th, is taken from the Penn Yan *Chronicle* of January 6th.

"Some 40 doctors and their wives attended the annual meeting of the Yates County Medical Society held at the Benham Hotel in Penn Yan Tuesday evening. Officers elected for the coming year were: Dr. O. C. Pacuilli, president; Dr. Howard Leader, vice-president; and Dr. B. S. Strait, secretary and treasurer. Dr. John Hatch and Dr. G. E. Stevenson were named delegates from the local society to the state meeting which convenes in the spring. Dr. C. E. Doubleday, Dr. E. C. Foster and Dr. G. E. Stevenson were named censors.

"The dinner was held in honor of Dr. Byron Bates Havens of Penn Yan who completed last March his 50th year as a practicing physician in Yates county. Dr. Havens was one of the first members of the Yates County Medical Society and consequently has seen its growth during its some 40 years of existence.

"Interesting talks were given by Dr. William Lyon, who told of his many experiences when practicing in Siam, by Dr. A. W. Armstrong of Canandaigua and Dr. A. J. Frantz of Seneca Falls. Dr. Schuyler Lott, formerly of Bellona and now of Waterloo, a longtime friend of Dr. B. B. Havens of this village, and Dr. B. S. Strait spoke in praise of the work of the veteran physician."

THE REHABILITATION HOSPITAL

The Managers of the Rehabilitation Institute and General Hospital wish to correct the statement carried in the 1926 Directory that the institution is temporarily closed. It is open as usual at 328 West 42nd Street, New York, and in April it will move to new and commodious quarters on 43rd Street, between 9th and 10th Avenues.

THE DAILY PRESS

NARCOSAN

The daily newspapers of New York City have recently carried accounts of a new drug for the cure of drug addicts that has been tried in the penal institutions on Welfare Island. *The Sun,* of December 14, carried the following announcement:

"Narcotic addicts can be restored to normalcy within about three weeks by the narcosan treatment, it was announced last night by Frederick A. Wallis, Commissioner of Correction, following seven months of experimentation with 366 cases in the correctional hospital on Welfare Island.

"The announcement was not made until today in order that it might appear simultaneously with the technical report on the tests signed by Dr. Alexander Lambert and Dr. Frederick Tilney and appearing in the New York *Medical Journal and Record.*"

The wording of the article gives one the impression that the announcement to the newspapers was made deliberately so that the people generally would get the news as soon as the doctors read it,—and even sooner for probably only a minority of physicians are subscribers to the *Medical Journal and Review.*

Since the item first appeared, other articles have come out almost daily telling about the discoverer of the medicine, and how the drug is produced and how it acts. The *Herald Tribune* of December 16 quotes the opinions of several physicians regarding the drug. Dr. Carleton Simon, a leading authority on drug addiction and a Deputy Police Commissioner is quoted by the New York *Herald Tribune* of December 16 as follows:

"When Horovitz, the discoverer, refused to divulge the formula and the exact method for its manufacture," said Dr. Simon, "I declined to lend myself to the exploitation of it. Hundreds of nostrums have been thrown on the market from time to time, but no new scientific cure has ever been presented in an altruistic manner, the only ethical manner the medical profession will recognize. The commercialization of human suffering should be frowned upon by any one with the interest of the public welfare at heart. I understand that the Horovitz article is a patented article."

The attitude of Dr. Simon is confirmed by an editorial in the Journal of the American Medical Association for December 18, 1926, page 2097, which reviews the record of Mr. Horovitz, the promoter of narcosan. The editorial says: "Since his arrival on these shores in 1913, Horovitz has been continuously identified with attempts to promulgate cures for all sorts of disorders by mixtures of lipoids and vegetable substances of the nature of nonspecific proteins. Included in his records are the Horovitz-Beebe 'cure' for cancer, the Merrell proteogens for the cure of practically everything, and more recently 'narcosan,' originally brought out about 1920 under the name of 'lipoidal substances.' Horovitz' present effort to promote 'narcosan' as a cure for narcotic addiction is supported by a clinical investigation by Drs. Alexander Lambert, ex-president of the American Medical Association, and Frederick Tilney, one of the editors of the *Archives of Neurology and Psychiatry.* The paper by these investigators appears in the *New York Medical Journal and Record* for the week of December 17. This paper was rejected by The Journal of the American Medical Association because the Council on Pharmacy and Chemistry rejected the product known as 'lipoidal substances' in 1921, because up to the present time the product has not been resubmitted and is apparently still of unestablished composition, and because the clinical investigations are not set forth in such a manner as to indicate even ordinary controls, such as might have been secured by treating an equal number of patients with the nonspecific proteins alone. Furthermore, on their admittance into the hospital, the patients were given a cathartic mixture consisting of seven ingredients, including some of those in the compound vegetable cathartic pill and a few others. Nevertheless, the paper was promptly accepted by the *New York Medical Journal and Record,* and simultaneously with its appearance in that periodical, a complete statement, highly exaggerated, was issued by the North American Newspaper Alliance."

Following the newspaper publicity inquiries for buying the drug came from all over the United States, many of which came to this Journal.

Comments on the drug continued to appear in the daily press, but on January 12 the daily papers stated that the use of the drug in the City institutions was ordered stopped by the State Commissioner of Correction. The *New York Herald-Tribune* of January 12th quoted the statement: "The Commissioners were not impressed with the manner of treatment, and were satisfied from the number of returned prisoners that a cure had not been discovered, and had grave doubts as to whether or not the treatment should be permitted to continue."

The Commissioners of Correction referred the matter to Dr. Matthias Nicoll, Jr., Commissioner of Health, and the report of the Secretary of the Department of Health, Dr. E. H. Marsh, is quoted in the *Herald-Tribune* of January 12, as follows: "Is narcosan a cure? This can be answered only in the negative. The warden in the Workhouse and the three physicians in attendance without hesitation admitted this fact to me. Fifteen persons who had received narcosan treatment have since been recommitted suffering with the drug habit.

"Is narcosan a more humane method of taking addicts off their drugs than any other method? To my mind this must be answered negatively.

"I questioned carefully every person (thirteen) now taking the treatment in the workhouse. All but two of these had had other methods of treatment previously, three or four times, while one confessed to nine previous cures. Every one of these individuals stated that the suffering under narcosan was far worse than with any other treatment. Several stated it was just the same as 'cold turkey' so far as suffering was concerned, but that it made them weaker.

"To satisfy myself that the suffering was more intense and that the physical condition of the patients was worse than in cases of those undergoing rapid reduction (five or six days) treatment, I examined twelve inmates of the penitentiary, half of whom had just been taken off their drugs and half of whom were in various stages of reduction. Not one of these patients was apparently suffering to the extent of the narcosan patients and all were in so much better physical condition that there was no comparison.

"Apparently the narcosan treatment is nothing more than 'cold turkey' plus the administration of a drug, and a regimen which so weakens the patient physically that group control is facilitated. Certainly the statements in the press that narcosan is a 'cure' are wholly unwarranted and should be unhesitatingly condemned.

"However, I do not wish to be unfair. My investigation covered a matter of hours only and further experimentation may show that narcosan has some value as a therapeutic in taking addicts off their drugs, but if this be done it should be carried out under different conditions than those obtaining in the workhouse."

In order to understand what the newspaper comments are about, one needs to consider the article in the *Medical Journal and Record* of December 15, 1926. A reading of that article leaves an impression of vagueness.

The article states: "The patent papers show that narcosan is a solution of lipoids, together with nonspecific proteins and water soluble vitamines. The lipoids are obtained from soy beans and cotton seeds by extraction with hot alcohol; the vitamines from plant seeds by percolation with saline solutions; the non-specific proteins from alfalfa seeds or Hungarian millet, by extraction with highly diluted hydrochloric acid. Equal parts of these three solutions are mixed together to form narcosan.

The theory of action of narcosan in the body is that narcotics, such as morphine, call forth in the body certain protective substances to neutralize them. If the narcotic be suddenly withdrawn, and not given, these neutralizing substances are themselves toxic to the body. The lipoids in narcosan neutralize these toxic substances in place of the narcotic.

"After seventy-two hours, because the withdrawal symptoms are over, these neutralizing reactions have ceased; the lipoids are then continued to replace the depleted lipoids in the body. The nonspecific proteins of the narcosan solution are added to stimulate the blood-forming tissues. This is a theory which scientific investigations must prove or disprove."

The account goes on to say that Commissioner Wallis was "anxious to try narcosan as an effective and useful treatment." Special facilities were set aside in the Correction Hospital on Welfare Island and treatment was begun on March 30, 1926.

The account then continues in a general way and says that "some" 219 men and 147 women have been given this treatment. A strong cathartic is first given, and then hypodermic injections of doses of 1 c.c. of narcosan in progressively diminishing intervals over a period of ten days. No detailed history of any case is given, but only a general picture of a typical case. No controls for comparison are described, but some metabolism studies are given.

The account is meager and unsatisfying to a physician who wishes to know the truth about the treatment. It is also unsatisfactory to read further: "Narcosan is equally efficacious in the treatment of other narcotics, such as alcohol and veronal."

Some newspapers voice a disappointment that physicians generally do not accept narcosan with enthusiasm. The New York *Sun* of January 17 says editorially:

"The public is rather weary of a dispute which has not got anywhere. It would like a verdict from competent disinterested men."

The representatives of the State Department of Health and of the American Medical Association, who have investigated narcosan, are both competent and disinterested. The newspapers would doubtless have accepted their statements without question, if the story had not been given to the lay newspapers at the same time that it was published in the medical journals. The original mistake was that of the promoters of the alleged cure in giving statements to the lay press. Editorial comment will be found on page 129 of this Journal.

THE SPIRIT WORLD

The New York *Herald Tribune* of December 14 comments editorially on a charge made at a conference on spiritualism at Clark University that scientists are hostile to spiritualistic investigations. The editorial says:

"This seems to us a charge utterly without foundation. Far from having ignored the claims of mediums and of supernormalists in general, science has been, if anything, too hospitable to their contentions. It is quite true that the majority of scientific men entertain the conviction that the whole field of spiritualism is based on fraud and fakery, but this conviction is the result of experience, often bitter experience, not of any prejudice or lack of an open mind. We are not aware that any medium of distinction has lacked a scientific audience or has been unable to obtain a committee of distinguished scientific men to witness—and usually to expose—the alleged phenomena.

"Scientific opinion is crystallizing upon the conviction that the so-called 'test conditions' commonly demanded by the mediums render any real scientific investigation impossible. It is urged by spiritualistic advocates that the darkness, the presence of a majority of persons 'friendly' to the medium, and so on, are essential conditions of success. Without them the mysterious 'power' will not operate.

"Possibly these 'conditions' required by the psychics may be necessary ones, but the scientists ask to be allowed to find this out for themselves. Until some medium is willing to place himself or herself unreservedly in the hands of the scientists, even to the risk of life or limb, which the scientists themselves are accustomed to face daily in their own experiments, the majority of the scientific fraternity may be excused for refraining from excitement about psychic research."

Our knowledge of any phenomenon, physical or spiritual, is gained only by means of our five senses; and all evidence regarding the spirit world must record itself in a physical way on those senses. Tappings, table movements, ghostly appearances, and all other phenomena connected with seances depend on their effect on the senses for proof.

The five senses are crude, and our interpretation of their impressions is still more so. The ear records only a brief range of air vibrations as sound, and the eye only a brief span of the infinite scale of the vibrations of light. Man has the crude suggestions of the existence of other senses besides the five that are ordinarily listed. There is the sense of direction that is well developed in a few persons, but in none does it exist to the degree that it does in carrier pigeons.

The theory of spiritualists is that a medium has a special sensitiveness to impressions from the spirit world whose manifestations take the form of rappings and movements of tables and ghostly appearances. But these evidences are so coarse and crude that they do not lend themselves to accurate measurement.

Our knowledge of constitution of invisible atoms has been based on the discovery of means for recording their phenomena on the five senses. If the phenomena of the spirit world is to affect the senses as clearly and unmistakably as those of the atoms, the means for their detection must be even more accurate and delicate than those used in the investigation of light.

PARALYSIS OF WILD DUCKS

We usually think that wild animals are strong and healthy, and are not subject to ills and plagues. The truth is that all forms of life are subject to diseases, many of which are as well known as those affecting mankind.

The New York *Herald Tribune* of December 8 contains an article entitled "Duck Paralysis Threatens Wild Fowl of West." The article says:

"'Duck sickness' is chiefly prevalent in the Bear River marshes adjacent to Utah's Great Salt Lake. The sickness causes a paralysis, which, unless the birds are put in fresh water, causes their death. Taken to fresh water in time, the birds are cured.

"In years when duck sickness is least prevalent, the estimated loss is from 30,000 to 100,000 and in the worst years the ducks killed number one and two million, according to an estimate of David H. Masden, State Fish and Game Commissioner of Utah.

"The 'duck sickness,' he pointed out, not only affects ducks, but all other marsh birds, although the latter are affected to a minor degree. Bear River marshes and the environs are the main feeding grounds for all migratory birds of the Middle West, and, hence, every state in the West to which the birds migrate is affected."

Those who observe birds closely will always find sick individuals. If a flock of meadow larks is fed regularly while the ground is covered with snow, a flock will stay around the feeding spot, and will nearly always contain one or two birds that are evidently sick, and that will soon be found dead. The observed mortality among bird life is great, and is due mostly to infectious diseases. Man is probably more free from infectious diseases than any other animal.

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

WELFARE PROBLEMS IN NEW YORK CITY. Which Have Been Studied and Reported Upon During the Period from 1915 through 1925. By SHELBY M. HARRISON and ALLEN EATON. Octavo of 84 pages. New York, Welfare Council of New York City, 1926. Paper, 50 cents.

ADVISING THE TUBERCULOUS ABOUT EMPLOYMENT. By W. I. HAMILTON and T. B. KIDNER. 12mo. of 171 pages. Baltimore, The Williams & Wilkins Company, 1926. Cloth, $2.00.

BIOLOGICAL RELATIONS OF OPTICALLY ISOMERIC SUBSTANCES. By ARTHUR R. CUSHNY, M.A., M.D. Octavo of 80 pages. Baltimore, The Williams & Wilkins Company, 1926. Cloth, $2.00. (The Johns Hopkins University, School of Medicine, The Charles E. Dohme Memorial Lectures, Third Course, 1925.)

INDEX OF THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, 1884 to 1925. Octavo of 227 pages. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $5.00.

PRINCIPLES AND PRACTICE OF CHEMOTHERAPY. With Special Reference to the Specific and General Treatment of Syphilis. By JOHN A. KOLMER, M.D. Octavo of 1,106 pages, with 82 illustrations. Philadelphia and London, W. B. Saunders Company, [1926.] Cloth, $12.00.

ANATOMY OF THE WOOD RAT. Comparative Anatomy of the Subgenera of the American Wood Rat (Genus Neotoma). By A. BRAZIER HOWELL. 8vo. of 225 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $5.00. (Monographs of the American Society of Mammalogists, Number One.)

GENIUS. Some Revaluations. By ARTHUR C. JACOBSON M.D. Octavo of 160 pages. New York (Adelphi Company), Greenberg, [1926.] Cloth, $2.50.

LABORATORY OUTLINES IN BACTERIOLOGY AND IMMUNOLOGY. By JOHN F. NORTON, Ph.D., and I. S. FALK, Ph.D. Octavo of 114 pages. Chicago, Illinois, The University of Chicago Press, [1926.] Cloth, $2.00.

THE MEANING OF DISEASE. An Inquiry in the Field of Medical Philosophy. By WILLIAM A. WHITE, A.M., M.D. 12mo. of 220 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $3.00.

THE NATURAL INCREASE OF MANKIND. By J. SHIRLEY SWEENEY, M.A., M.D. Octavo of 185 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $4.00.

MILITARY MEAT AND DAIRY HYGIENE. Prepared Under the Direction of the Surgeon General of the United States Army. Compiled by CAPTAIN HORACE S. EAKINS, V.C. Octavo of 647 pages. Baltimore, The Williams and Wilkins Company, 1924. Cloth, $6.50.

CLINICAL SURGICAL DIAGNOSIS FOR STUDENTS AND PRACTITIONERS. By F. DEQUERVAIN. Translated by J. SNOWMAN, M.D. Fourth English Edition. Octavo of 937 pages, with 750 illustrations and 7 plates. New York, William Wood and Company, 1926. Cloth, $14.00.

THE REPRODUCTION OF LIFE. A Handbook of the Science of Reproduction in Nature and Man. By A. J. COKKINIS, F.R.C.S. 12mo. of 287 pages, illustrated. New York, William Wood and Company, 1926. Cloth, $3.50.

HUMAN PATHOLOGY. A Textbook. By HOWARD T. KARSNER, M.D. With an Introduction by SIMON FLEXNER, M.D. Octavo of 980 pages, with 463 illustrations. Philadelphia and London, J. B. Lippincott Company, 1926. Cloth, $10.00.

REMINISCENCES. By GEORGE HENRY FOX, A.M., M.D. Octavo of 248 pages, illustrated. New York, Medical Life Press, 1926. Cloth, $3.50.

A SOUND ECONOMIC BASIS FOR SCHOOLS OF NURSING AND OTHER ADDRESSES. By MARY ADELAIDE NUTTING, R.N., M.A. Octavo of 372 pages. New York and London, G. P. Putnam's Sons, 1926. Cloth, $2.50.

MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY FOR 1927. 6½ by 3¾ inches. New York, William Wood and Company, 1926. Flexible Leather. Prices are for 30 patients per week, $1.75; for 60, $2.00; for 90, $2.50.

THE SCIENTIFIC BASIS OF CHEMOTHERAPY. By IWAN I. OSTROMISLENSKY, Ph.D., M.D. 12mo. of 142 pages. New York (The Author), 1926. Paper.

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of CHARLES L. MIX, A.M., M.D. Series 1926. Chicago, The Year Book Publishers, 1926. General Medicine. Edited by GEORGE H. WEAVER, M.D., LAWRASON BROWN, M.D., ROBERT B. PREBLE, A.M., M.D., RALPH C. BROWN, B.S., M.D. 12mo. of 737 pages, illustrated. Cloth, $3.00. Price of the series of eight volumes, $15.00.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR. Prepared Under the Direction of MAJOR GENERAL M. W. IRELAND. Volume VI. Sanitation: in the United States, by COL. WESTON P. CHAMBERLAIN, M.C.; in the American Expeditionary Forces, by LIEUT.-COL. FRANK W. WEED, M.C. Quarto of 1,141 pages, illustrated. Volume XIV. Medical Aspects of Gas Warfare, by COL. WILDER D. BANCROFT, C.W.S., and others. Quarto of 876 pages, illustrated. Washington, Government Printing Office, 1926.

CLINICAL APPLICATION OF SUNLIGHT AND ARTIFICIAL RADIATION. Including Their Physiological and Experimental Aspects with Special Reference to Tuberculosis. By EDGAR MAYER, M.D. Octavo of 468 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $10.00.

THE MEDICAL CLINICS OF NORTH AMERICA. Vol. 10. No. 3. November, 1926. (Mayo Clinic number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Paper, $12.00 net; Cloth, $16.00 net.

SKETCH OF THE HISTORY OF THE MAYO CLINIC AND THE MAYO FOUNDATION. From the Division of Publications, Mayo Clinic. Octavo of 185 pages. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $3.50.

BOOK REVIEWS

An Atlas of Midwifery. By Comyns Berkeley, M. A., M. C., M. D., and Georges M. Dupuy, M. D. Octavo of 160 pages, with illustrations. New York, William Wood and Company, 1926. Cloth, $3.00.

This little book contains a fairly complete set of the illustrations usually found in a text book on obstetrics. There is no text except the legends under the diagrams and drawings. Under episiotomy it is interesting to note that the authors state that this incision is "but rarely employed." A handy book for the medical student—it is simplicity itself. C. A. G.

Gould's Medical Dictionary. Containing All the Words and Phrases Generally Used in Medicine and the Allied Sciences, With Their Proper Pronunciation, Derivation and Definition. By George M. Gould, A. M., M. D. Edited by R. J. E. Scott, M. D. Octavo of 1,398 pages, with illustrations and tables. Philadelphia, P. Blakiston's Son and Company, 1926. Flexible leather, $9.00.

Gould's Medical Dictionary has long been a standard, and this revision by Dr. Scott brings the volume up to date. The definitions are clear and concise, and the pronunciation and derivations of the terms are given in a satisfactory manner. The book answers all the purposes of a medical dictionary.

Frederic Damrau.

A Practical Medical Dictionary. By Thomas Lathrop Stedman, A. M., M. D. Ninth edition. Octavo of 1178 pages, illustrated. New York, William Wood and Company, 1926. Flexible leather, $7.50.

It is only two years since the eighth edition of Stedman's medical dictionary was published; therefore, extensive changes were not necessary. Several hundred new words have been added, bringing the dictionary up to date, and the names of some of the proprietary preparations no longer advertised have been dropped. Various changes were made to make the text conform to the new editions of the U. S. Pharmacopoeia and National Formulary and an alphabetical table of drugs and their indications has been added. The plates have been taken from the back of the book and distributed throughout the text.

The ninth edition brings up to date a thoroughly satisfactory medical dictionary. Frederic Damrau.

Practical Dietetics for Adults and Children in Health and Disease. By Sanford Blum, A. B., M. S., M. D. Second revised edition. Octavo of 362 pages. Philadelphia, F. A. Davis Company, 1926. Cloth, $4.00.

In this book definite, quantitative diets are given only for infant feeding and for typhoid fever For typhoid fever only two definite diets are given, one, for the first week of the disease, which supplies about 20 grams of protein and 300 calories, and the other, for the second and third weeks, which supplies about 20 grams of protein and 500 calories. These typhoid fever diets differ materially, in quantities at least, from those advocated by many good authorities at the present time. For all the other diseases and conditions mentioned in the book no definite diets are given but only menus (in which are rarely seen references to household measurements) and diet lists labelled "may eat" and "avoid." Those who are satisfied to practice dietotherapeutics with diet lists and menus may be interested in this book; but to those who understand by a diet, definite articles of food taken in definite quantities, in definite periods of time, the book will hardly appeal.

E. E. C.

Essays in the History of Medicine. By Karl Sudhoff, M. D. Translated by various hands and edited, with foreword and biographical sketch, by Fielding H. Garrison, M. D. Octavo of 397 pages. New York, Medical Life Press, 1926. Cloth, $5.00.

The book contains the English translations of thirty-eight essays by Professor Sudhoff and is edited by Dr. Fielding H. Garrison, who also contributes a foreword and a biographical sketch of Professor Sudhoff. Dr. Garrison also translates several of the essays.

Among the names of the other translators are Doctors Allemann, Hemmeter, Krumbhaar, Radin, Riesman, Ruhräh, Seelig and Stockman. Also Felix Neumann, of the Surgeon Generals Library, and George Panebaker and Emilie Recht, of the "Medical Life" staff.

A book on the history of medicine by Professor Sudhoff, sponsored by Dr. Garrison, needs no recommendation.

The book is well printed and made and moderately priced. I. O. Tracy.

I Believe in God and in Evolution. By William W. Keen. M. D. Fourth Revised Edition, 12mo of 109 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1925. Cloth, $1.25.

11,000 copies of this book have come from the press. The number of copies sold proves the interest of the reading public in this subject. There are a great quantity of books appearing on the subject of evolution. Each one is more or less of a repetition of those previously published, and very few new data are added. This book attempts by its title to reconcile the Bible and Science, but it does not do so, because the author does not believe in accepting the Bible as written. He accepts the early part of it by interpreting it as a bit of oriental picture writing. The Doctor gives a new interpretation of many of the malformations of the human body so as to make them coincide with the theory of evolution. Comparative anatomy has not helped in solving the theory of evolution. It is just as unsolved as it ever was, and will remain so for some years to come.

This is an interesting little book, written by one of America's eminent physicians who has contributed much through a long life. The book deserves the kindly reception it is receiving by the friends and foes of the subject considered. J. Arthur Buchanan.

Therapeutics, Materia Medica, and Pharmacy. The Special Therapeutics of Diseases and Symptoms, the Physiological and Therapeutical Actions of Drugs, the Modern Materia Medica, Official and Practical Pharmacy, Prescription Writing, and Antidotal and Antagonistic Treatment of Poisoning. By Samuel O. L. Potter, A.M., M.D., M.R.C.P., Lond. Fourteenth Edition, revised by R. J. E. Scott, B.C.L., M.D. Octavo of 672 pages. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $8.50.

This work, now in its fourteenth edition, is as usual an excellent book, fulfilling the wants of the student and practitioner alike. This edition has been thoroughly revised and conforms to the changes made in the U.S.P.,X, giving also a brief description of the non-official drugs and preparations. Here can be found, in a concise form, the physical properties and chemical constituents of drugs, their doses, preparations and incompatibilities. The section on Therapeutics is well constructed and gives at a glance the remedies best suited in the treatment of various conditions.

The book is valuable and highly recommended as an authoritative treatise on the subjects of Therapeutics, Materia Medica, and Pharmacy. Frederick Schroeder.

An Intermediate Textbook of Physiological Chemistry With Experiments. By C. J. V. Pettibone, Ph.D., Associate Professor Physiological Chemistry, Medical School, University of Minnesota, Minn. Third Edition. The C. V. Mosby Co., St. Louis, 1925. Price $3.25.

Obviously when a book reaches the third edition its worth is soundly established by that fact alone. Nor is it difficult to understand why this little book has been valued so highly by those who know it.

As its title suggests, it represents an effort to bridge the gap between general chemistry and the more detailed studies of physiological processes.

It does not suffer the limitations of the elementary text book—it is meat from cover to cover—a study in conciseness—and has appended a laboratory outline which presents a carefully selected group of experiments with clear, terse but adequate directions for their performance.

G. H. Roberts.

A Handbook for Senior Nurses and Midwives. By J. K. Watson, M.D., 12mo. of 554 pages with illustrations. New York, Oxford University Press, 1926. Cloth, $4.00. (Oxford Medical Publications.)

This is the first edition and first printing of this volume and being a small compact book well printed with particularly accurate anatomical illustrations as well as instrument and appliance illustrations, it should be an excellent reference volume for those to whom it is dedicated.

The subjects are well covered in a very readable manner. The chapter on "Prevention of Disease"—a very important subject for the nurses of today, especially those who are doing social hygiene work—is entirely too brief for any pratical benefit.

The book would certainly be an excellent handbag companion to any nurse.

Herbert T. Wikle.

The Diagnosis, Treatment and End Results of Tuberculosis Disease of the Hip Joint. By George Perkins, M.CH. Oxon., F.R.C.S., Eng. Octavo of 118 pages, with illustrations. New York, Oxford University Press, 1926. Cloth, $1.75. (Oxford Medical Publications).

The writing of specific monographs on disease of selected regions is an excellent custom. It produces a book that is compact, easily handled, popular with students and the subject matter tends to be concise and definite. Of such a character is this book on the hip joint. About thirty pages of the one hundred are devoted to a frank and illuminating discussion of the end results of treatment and in these pages there is much of true value. The author here compares the character of the treatment and the results showing where failure of proper care produced the deformity. The book is published in an excellent manner and fully illustrated.

J. C. R.

The Principles of Anatomic Illustration Before Vesalius. An Inquiry into the Rationale of Artistic Anatomy. By Fielding H. Garrison, A.B., M.D. 12mo. of 58 pages with illustrations. New York, Paul B. Hoeber, Inc., 1926. Cloth, $2.50.

This small book, written by a master, carries an object lesson: the author tries to stimulate the physician to use his power of observation when examining the sick, just as the ancient and mediaeval masters used theirs when conveying upon paper, canvas or in marble their impressions of the body in toto or dissected. Every lover of medical history, and we are quite confident there must be a great many, should possess this gem. It is most interesting reading, but unfortunately not enough. It creates the desire to read on and on. The story and the illustrations are wonderful.

Gaetano de Yoanna.

Experimental Pharmacology as a Basis for Therapeutics. A Text-Book for Students and Physicians. By Dr. Hans H. Meyer and Dr. R. Gottlieb. Second edition in English translated by Velyien E. Henderson from the Seventh Revised German Edition. Octavo of 656 pages with illustrations. Philadelphia and London, J. B. Lippincott Company, 1926. Cloth, $7.00.

This is the Seventh German Edition and the Second English translation of this exceedingly interesting book. Some slight changes were made in the German text so as to conform to the scientific names of the drugs of the Tenth Revision of the United States Pharmacopoeia, and likewise the British Pharmacopoeia, 1914, with the pharmacopoeial doses of these books. The usual classification of drugs according to their actions in the body has been departed from and the subject is approached from the physiology of each organ and its pathological condition, endeavoring in this way to show how its function may be altered by the use of certain remedial agents. The sections dealing with the central nervous system, kidney, and metabolism are exceptionally good.

This book is invaluable to all advanced students and teachers of this subject.

Frederick Schroeder.

Mesenteric Vascular Occlusion. Supplemented by an Appendix of 76 Original Cases. By A. J. Cokkinis, M.B., B.S., F.R.C.S. Octavo of 159 pages. Eng. New York, William Wood and Company, 1926. Cloth, $4.00.

Mesenteric vascular occlusion is one of the abdominal calamities the surgeon meets with not infrequently. The author, as a result of some personal experiences with a few of these cases, undertook a thorough study of the literature on this subject as well as a complete analysis of a large number of hospital cases. He has also carried out a series of experiments on animals, in order to determine the degree of collateral arterial supply by occluding the main trunks, and then the various branches in the mesentery.

These investigations have led to certain definite conclusions, which will, no doubt, prove of practical help to the surgeon, for the treatment must depend upon a proper understanding of the pathology.

Herman Shann.

A Manual of the Parasitic Protozoa of Man. By Charles F. Craig, M.D., M.A. Octavo of 569 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1926.

This manual is different from any others treating of the parasitic protozoa in that it is written for the practising physician and not for the student of protozoology. However, the latter will find excellent and complete descriptions of the protozoa, but the author's primary aim has been to make his work of value to those who must diagnose and treat these diseases. His many years of experience and high rank as a protozoologist make him speak with authority.

He describes amebae, flagellates, coccidia, malarial plasmodia, sarcosporidiae and ciliates systematically under morphology, resistance, habitat, cultivation, life-history, distribution, infection and transmission and the disease each produces with symptoms, diagnosis, prevention and treatment. There is a full discussion of the more important protozoan diseases such as amebic dysentery, sleeping sickness, kala-azar and malaria. There are many illustrations picturing the various forms of most of the protozoa described. In spite of its technical nature the author has succeeded in making a very readable book and the reviewer found much of interest.

E. B. Smith.

OUR NEIGHBORS

BUSINESS PHILOSOPHY

Every editor is anxious to ascertain the reaction of his readers toward his journal—and the discovery of the truth is often surprisingly difficult. An editor can always find abundant confirmation of his choice of subjects and justification for his policies, for much that he publishes has come to him as the result of conversations and letters and speeches which he has heard. But the organ of a state medical society represents the great majority of the physicians of his state, and most of them do not say what they want, although too frequently they tell their neighbors what they don't want. But after all, physicians are kind and simply ignore the reading matter which does not appeal to them.

Dr. Frank C. Hammond, the editor of *The Atlantic Medical Journal,* the organ of the Medical Societies of Pennsylvania and Delaware, thinks that doctors would acquire a taste for the matter in all departments of their State Journal if they would read it to discover what it contains. His views are expressed in a brief editorial entitled "Business Philosophy," which reads as follows:

"William Feather states that 'one of the greatest business geniuses of this country has always made a rule of asking himself regarding everything he sees, hears, or reads 'How can I use that?' and further, 'How I can use that?' is a query that should be in the minds of all of us as we go about from day to day. Experience is of no value unless we translate it into life itself.' How many of our members read through the *Journal* from cover to cover, and make practical application in their every day work of the many lessons therein learned.

"We have asked a number of our readers to what extent they read the *Journal.* The answers may be summarized as follows: They thumb the *Journal* through and read the editorials or the news items or the ads, and too frequently there it ends; whereas a wealth of material is delivered at their doors regularly every month, if they would but take advantage of it. It is a duty they owe primarily to their patients and secondarily to themselves.

"Establish the habit. Read your State Journal. Read it through and apply in your daily work what you learn therefrom."

CAMPAIGNS FOR LAWS ON MEDICAL PRACTICE

Suggestions regarding the management of campaigns for the passage of wise medical laws were made by Dr. J. Allison Hodges of Richmond, Virginia, on October 12, at the annual meeting of the Medical Society of Virginia, and were reported in the December issue of the *Virginia Medical Monthly.* Dr. Hodges' plan was that committees of doctors should get in touch with lay organizations as has been done in New York State. Dr. Hodges said:

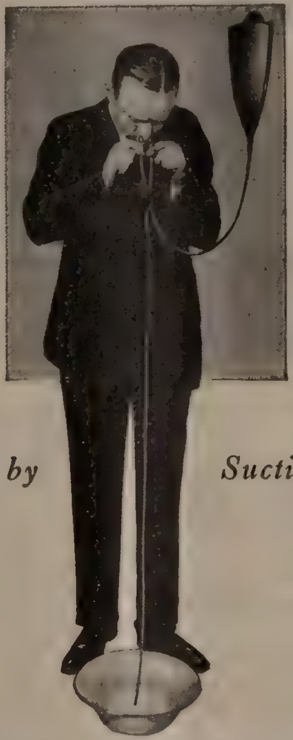
"In this fast-moving age, the individual as a personal entity has been merged largely into the group class, and the facilities for mass education have never been so numerous, nor so effective. Already physicians have accomplished much, individually and through their associations, through medical colleges and state and federal governmental agencies, but the people do not know these things; they do not know even that nearly all of the great discoveries and inventions in the field of scientific therapy 'which have extended the average of human life in the memory of us all over ten years, and which in the future will extend it another decade by eliminating the epidemics which in the past have swept millions to an undeserved death,' can be traced to the door of the doctor—never to the gilded den of the quack. In the future, the doctor must not be the lone voice crying in the wilderness, he must forego his time-honored reticence.'

"It has been claimed by some puny pessimists that since quacks still exist, and have always for that matter, nothing can be done, nor has ever been done, to remedy the evil, but this is idle gossip, due only to the misconception by the doctor of one of the basic duties of his profession, and the consequent ignorance of the public because of the lack of proper knowledge or because of misrepresentation of the true facts by designing irregular practitioners.

"Probably there was never a time when a closer relationship between the doctor and the public was more desirable or more necessary than at present, for the increasing number of specialists, and the decreasing number of country practi-

(*Continued on page 152—Adv. xvi*)

Sinus Evacuation



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When the attachments are applied to the nostrils a suction action is induced which draws upon the retained mucus not only in the nose but in the sinuses as well.

Properly applied, the syphon accomplishes the cleansing and evacuation easily and quickly.

The relief experienced by the patient makes him willing to use the device as directed by you—and you have the confidence, instilled by the safety and simplicity of the device, that it will aid considerably as an extra office treatment at home in the alleviation of many conditions.

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We have also developed a type of cooker which is being successfully operated on the large steam trawlers while they are far out at sea.

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Only by giving close attention to the matter of fresh liver supply can we maintain the high quality of PATCH'S FLAVORED COD LIVER OIL, a sample of which will be mailed to you if you will send us the coupon below.

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tioners, together with the materialistic attitude of some of our unthinking members, have made the gap between physician and patient wider, and to a certain extent undermined the respect in which the medical profession is held. As proof of these facts, it may be stated briefly that, during a sixteen year period of one of our great medical universities, this institution has sent out 965 graduate doctors, and only four of them today are practicing their profession in rural districts, and many, if not most of the others, have entered the field of specialism.

"The case of the mountainous section of Virginia, West Virginia and North Carolina is outstanding, for five million mountaineers, pure-bred Americans, live in isolation in their highland empire, without a single doctor in some of the counties. Granting, then, that a medical necessity exists, and that education, and education alone, of both the physician and the public can meet this situation, and thus unhorse the medical pretender, who is seeking legal recognition, what is the practical solution?

"As a general plan for preventing and eliminating the conditions named, and as an entering wedge into what must ultimately become universal health education, the following recommendations are submitted:

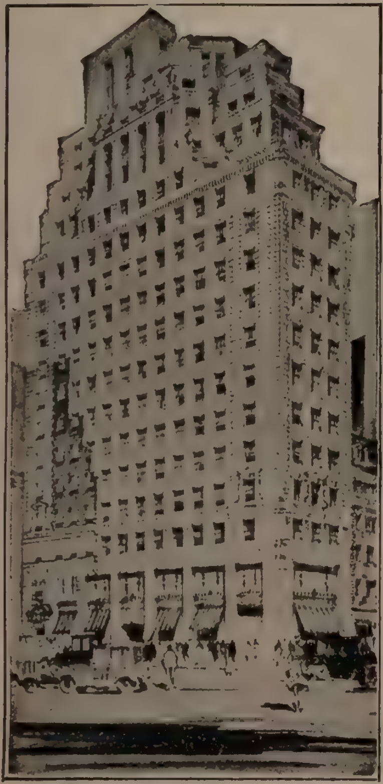
"The appointment by the State Chairman of the Executive Council of a local Professional Relations Committee, consisting of three physicians resident in each Councilor district, who shall have charge locally, with the State Chairman of the Executive Council and the Chairman of the State Legislative Committee, of all medico-legislative problems that may arise in such districts;

"That these local committees in each Councilor district shall have the right to organize according to their own preferences, and shall have the authority to associate with themselves such local medical, educational, religious, health and lay associations, especially the local Woman's Auxiliary, as they may deem proper, the local chairman keeping the State Councilor Chairman informed, and he in turn, to keep in contact with the State Legislative Chairman in all matters relating to medical legislation.

"The dominant purpose in all this is to develop direct contacts through associated and helpful agencies in the home districts that will educate the law-makers and the public to secure the enactment of constructive legislation designed for the common good. This will be no easy task, but it is not an impossible one, and is one that should appeal, not to the profession as a mere profession, but to the true and loyal spirit of the profession of medicine. Medical legislation is only a means to an end, and the average legislator is ready to listen to an unbiased lay opin-

(*Continued on page 154—Adv. xviii*)

BUILT FOR YOUR PRACTICE



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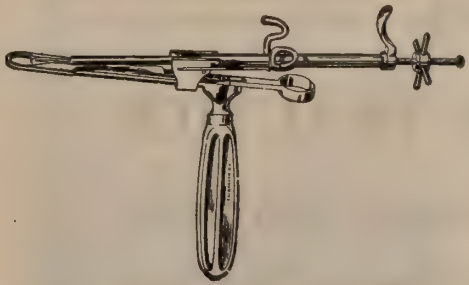

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ion; consequently, the desire of the physician not to gain a patient, but for the patient to gain health, will be better understood and appreciated."

SCIENTIFIC SERVICE COMMITTEE

The Illinois State Medical Society is conducting a scientific service for supplying speakers for meetings of County Medical Societies, to which reference was made on page 101 of our last issue. The January number of the Illinois Medical Journal contains further information regarding the findings of the Committee that has the service in charge, and the further development of its plans. The committee had conducted a questionnaire into the choice of subjects for the scientific meetings. The article says:

"From the above return on the questionnaire, we must draw the conclusion that the men prefer clinics and round table discussions, with only a small per cent preferring papers. It is also my opinion that if we can get this form of meeting developed, we can interest all of the local men in taking an enthusiastic part in the meetings. The Committee will stress the clinical aspect wherever possible in presentations before county and district medical societies. This will require co-operation from the society requesting service, but will abundantly repay them for the additional effort."

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   The pneumonias.
   Common colds.
5. Cardio-vascular Disease:
   Diagnosis and treatment of early heart failure—of advanced heart failure.
6. The Nature and Significance of Cardiac Murmurs—of Cardiac Pain—of Cardiac Irregularities.
7. The Prevention of Cardiac Disease.
8. Kidney Disease:
   Simplification of nomenclature and classification, clarifying nephritis and nephrosis.
   Diagnosis—treatment.
9. Goiter:
   Simple classification.

(*Continued on page 155—Adv. xix*)

Treatment of various types—medical, iodine, surgical.
Brief diagnosis of types.
10. Jaundice:
11. Headache.
12. Cyanosis.
13. Dysnea.
14. Edema.
15. Constipation.
16. Diarrhea.
17. Cough.
18. Albuminuria.
19. Eruptive Fevers.
20. The Business Side of Medicine.
21. Preventive Medicine:
    a. Community sanitation from the doctor's viewpoint.
    b. The profitable practice of the periodical health examination.
    c. Immunizations.
22. Empyema:
    General considerations.
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    Medical and dental aspects.
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    Acute—treatment:
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(*Continued on page* 156—*Adv. xx*)

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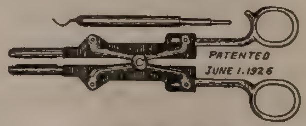

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MEDICAL LEGISLATION IN MISSOURI

The Journal of the Missouri State Medical Association for December has an editorial on the medical legislation that may be expected this winter. It says:

"In the proposed plan for the abolishing or consolidation of the present 123 boards and commissions now existing, it is intended to legislate them all into ten divisions. The State Health Department will be one of the units taking the place of the board of health. The principal officer will be the secretary. There will be an advisory board composed of seven physicians. The Department of Health will have divisions for vital statistics, sanitation, child hygiene, a bacteriological division, and will supervise all investigations of social diseases as well as the work for the prevention of blindness. The Pure Food and Drug Department of the state government will be merged with the Department of Health. Under the consolidation idea, a feature that may occasion much discussion is the examination of medical students. A Department of Education and Registration is to be created. A director of education, to be appointed by the Governor, with a board of regents composed of seven members will conduct all examinations, medical or otherwise, where the law requires a state license.

"The proposed amendments to the medical practice act, to be submitted to the General Assembly by the Missouri State Medical Association, should meet with the approbation of the layman. Much has been written about the diploma mills where ignorant, irresponsible, untruthful and inexperienced men have purchased their diplomas from dishonest educators. The sick need real medical advice. This only should be given by men who can diagnose the ailments through experience obtained from medical training at reputable medical colleges. The featured amendments to be presented by the State Medical Association will enact a section requiring applicants for licenses to practice medicine in Missouri to have attended at least four terms of nine months each and to have received a diploma from some reputable medical college.

INTESTINAL INFLUENZA

An editorial in the January issue of *Northwest Medicine*, the organ of the Medical Societies of Oregon, Washington and Idaho, calls attention to the unsatisfactory nature of a diagnosis of intestinal influenza—a diagnosis which is sometimes made in the Empire State. The editorial is as follows:

"A generation or more ago the term 'malaria' was a safe refuge for the diagnostician who was unable to determine the true nature of febrile conditions. It was in general use for that purpose until the discovery of the plasmodium malariæ, after which there was no excuse for this diagnosis on the part of any physician, unless the patient was truly infected with malaria. At the present time the diagnosis 'intestinal flu' is analogous to the former use of malaria. Its introduction dates from the influenza epidemic of 1918, since which time it has been widely and loosely employed as a cloak for ignorance in a variety of abdominal disorders. For many years 'ptomaine poisoning' was the popular designation for uncertain and obscure intestinal disorders. At present, however, that seems to have been largely retired in favor of the diagnostic label under consideration.

"Whether intestinal influenza is an entity which really exists is a matter of dispute. In no authoritative textbook is it listed as a distinct ailment. Tice states that gastrointestinal complaints are present at times during attacks of influenza, the symptoms of which are purely functional in character. While occasionally accompanied by bloody discharge and stringy mucus, these are the only evidence that at times the disease develops definite signs of catarrhal, inflammatory or ulcerated conditions. Stevens affirms that gastrointestinal symptoms were not uncommon in the epidemic of 1889, but comparatively rare in that of 1918. Intestinal symptoms of abdominal pain, nausea, vomiting and diarrhea are occasionally sufficiently severe to suggest cholera morbus or dysentery. Sajous mentions similar circumstances in the digestive tract as a complication at times of influenza. Abt claims that the gastrointestinal type of influenza occurs mainly in children and young adults. In some cases, he states, there may be no signs referable to the respiratory tract, though children thus affected often complain of abdominal symptoms. The writer on this subject in Osler and McCrae's Modern Medicine declares that this form of influenza as an entity is of uncertain existence. He has never seen a case with absence of respiratory symptoms in which the diagnosis was sure.

"Thus, it is to be noted, the opinion seems to prevail that the intestinal tract may be affected by the organism producing influenza, most commonly, however, as a complication of this recognized disease. In this discussion the protest is against the off-hand and easy diagnosis of 'intestinal flu' in the presence of a variety of indefinite abdominal symptoms. For the purpose of accuracy the conscientious physician will, so far as possible, make his diagnosis in accordance with established pathology and symptomatology. In the absence of these factors let him admit his inability to arrive at a satisfactory diagnosis. It harms neither patient nor practitioner for the latter at times to admit he does not know, although such admission is most difficult on the part of many physicians."

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A BROAD-MINDED JUDGE

A news item in the December issue of the Journal of the Missouri State Medical Association describes the action of a Judge in Kansas City in dismissing a suit brought against the city health officer for ignoring the Judge's order restraining the commissioner from proceeding against a certain unsanitary dairy. The item reads:

"A suit against Dr. E. W. Cavaness, city health director of Kansas City, and O. C. Murphy, food and dairy commissioner, for contempt of court was dismissed by Judge Coon, November 20. Judge Coon had issued a restraining order prohibiting the city authorities from interfering with the dairy activities of L. K. Hebeler, charged with selling milk contaminated from a polluted spring on his dairy farm, thus causing the milk to become a source of typhoid fever. In spite of the restraining order, the health director and the food and dairy commissioner sought to prevent the sale of milk from Hebeler's dairy. In declining to issue a citation of contempt against the city officials, Judge Coon said: 'If the defendants had good reason to believe that the milk being sold by Hebeler was of such character as to endanger public health, they had the right under the police power of the city to prevent the sale. While technically the letter of the restraining order may have been violated, this court is not so sensitive of its power as to stand in the way of officers in protection of the public health.'

"Judge Coon is to be congratulated upon his decision not to permit the technicalities of the law to interfere with the duties of health officers in protecting the public health."

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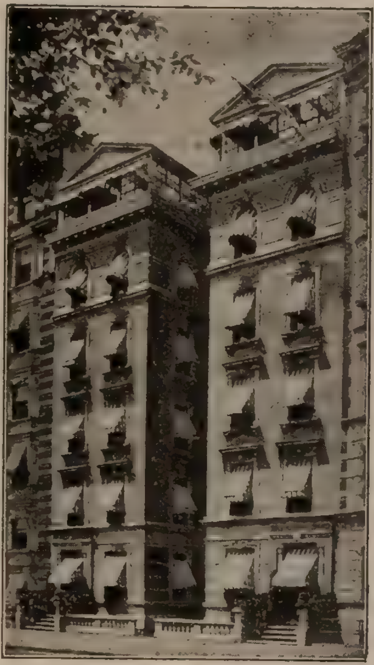

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NEW YORK STATE
JOURNAL *of* MEDICINE

PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

VOL. 27, No. 4 NEW YORK, N. Y. FEBRUARY 15, 1927

THE NEW YORK STATE PROGRAM IN VENEREAL DISEASE CONTROL*

By ALBERT PFEIFER, M.D., ALBANY, N. Y.

THE trend of state activities in venereal disease control during the last few years has somewhat resembled a weathervane with its frequent changes. The main cause has obviously been economic, state governments not appropriating sufficient funds to take the place of the discontinued federal allotments rather than for any real difference in opinion as to the effectiveness of the measures used initially, which had the endorsement of the United States Public Health Service. These measures naturally fall under the following headings: (1) medical, (2) educational, (3) legal, (4) recreational and protective.

The State of New York early recognized the gravity of the venereal disease menace and made appropriations sufficient to carry out a sane, well-balanced program adaptable for a peace-time campaign. In 1918, the state legislature passed the following statute, Chapter 342, Laws of 1918:

Section 1. "There is hereby established in the state department of health a bureau of venereal diseases.

Section 2. "Said bureau shall be under the direction of the state commissioner of health who shall appoint all necessary employees thereof and fix their salaries. Said bureau shall be authorized to buy, manufacture and dispense under such conditions as may be prescribed by the state commissioner of health remedies for the treatment of venereal diseases, to examine specimens submitted to it, to make all necessary tests, provide and distribute literature and to use such other means as seem desirable for the instruction of the public and the suppression and cure of venereal diseases, and to take such further action as seems necessary to secure this end."

Title of Division Changed.—An outline will be given of the work as conducted by the Division of Social Hygiene, formerly known as the Division of Venereal Diseases. The term "social hygiene" more accurately denotes the activities and is more harmoniously received by the general public than the former name "venereal diseases." The original grouping of gonorrhea, syphilis and chancroid together under the term "venereal diseases" rested upon the fallacy which regarded these diseases as etiologically similar, an error our modern knowledge has rectified. During the course of the last year a marked change in public opinion toward this subject has been noted. It now appears to be a much sought-after and popular subject. The explanation for this is probably the dignified and conservative manner in which it has been presented by the staff of this Division. Official health authorities and the general public now see gonorrhea and syphilis as a public health problem aside from a question of morality, which makes it amenable to an open attack with a good chance for the success of our efforts. The tremendous task and responsibility involved in the attempt to control and ultimately eradicate these diseases has been appreciated fully from the first. The various factors and insidious ramifications of influences which directly or indirectly tend to spread these diseases make their control extremely difficult. There must be a varied constructive program to combat the many forces which are keeping up the high incidence that we still have today. Such an extensive program requires the active participation and cooperation of all official and volunteer agencies interested in improving social health conditions.

Personnel.—The staff of the Division of Social Hygiene consists of a director (a physician), an assistant director (college graduate), three lecturers (physicians, two men and one woman), two graduate nurses, one supervising, social service activities and lecturing to special groups such as undergraduate and graduate nurses and the other conducting special social service demonstrations; and office force consisting of secretary (college graduate), one statistical clerk, three stenographers, three typists and three clerks.

Statistical Deductions.—While none of our available statistics present a true picture of the incidence of gonorrhea and syphilis, yet they do show that

1. These diseases are more prevalent than any other communicable disease. (Chart No. I—Leading Communicable Diseases.)

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* Read at New England Health Institute, October 1, 1926, Concord, New Hampshire.

2. There is no marked decrease in new infections. (Chart II.)

3. They are diseases of youth.

4. There is an increase in the number of physicians prepared to diagnose and treat these diseases.

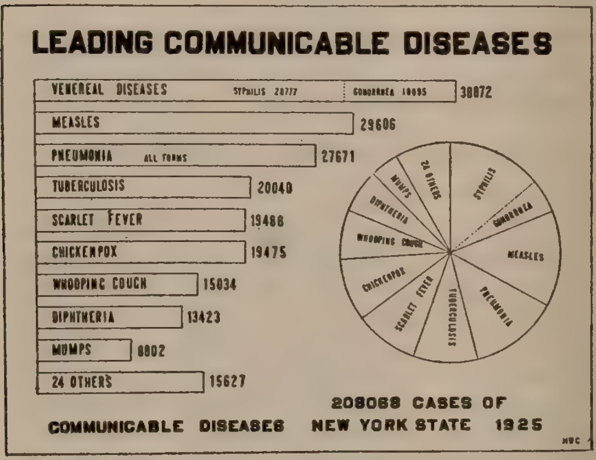

Chart I. Leading Communicable Diseases.

5. The public is beginning to appreciate that the control of these diseases is an urgent public health problem.

A Remedial and Constructive Program.—Naturally a program for the control of syphilis and gonorrhea must provide measures for

1. The actual infected cases.
2. The potential cases.

The first group, the actually infected, must be first considered, for primarily the control of syphilis and gonorrhea is a medical problem and facilities must be provided to encourage all cases to seek early diagnosis and treatment. It is fundamentally important that acute cases should be brought under treatment early that they may not be a menace to the community and that the chances of ultimate cure may be increased. With these diseases every endeavor should be made to carry on the treatment, particularly in the case of syphilis, until a cure is established or the condition arrested and not to be satisfied that actual infectiousness is not apparent, because we now realize that large numbers relapse when anything less than thorough and complete treatment is administered. Fifty-three clinics have been established in strategic positions and more are contemplated throughout the State to take care of indigent cases. We have provided in most instances the equipment in these clinics and supply the arsphenamines. The local health departments carry the general running expenses. (Chart III —Map Showing Clinics and Laboratory Facilities.) Monthly reports are made by the clinics to the Department, copies of which are in turn forwarded to Washington. (Chart No. IV—Clinic Activities Shown.) Visits are made by the Director and also by the social worker from the Department to discuss diagnosis, treatment, follow-up work, record keeping and general clinic management. The number of treatments at the clinics have averaged in the case of syphilis 9.9 per patient, of which 4.3 were one of the arsenicals, 5.6 mercury or bismuth. In the case of gonorrhea the patients averaged 11.3 treatments each. With improved social service this number will undoubtedly be increased. (Chart No. V—Clinic Treatments). Special efforts have been made to have cases of congenital syphilis treated. In many cases special hours or days are set aside for these cases. The number under treatment has increased from 240 in 1923 to 251 in 1924 and 338 in 1925. Routine blood examinations are recommended in all cases of pregnancy. Particular emphasis is laid upon the value of social service in clinics, which is usually conducted by a nurse. The sources of infection are ascertained whenever possible. In the counties of Cattaraugus, Allegany and Clinton, the clinics are on a county basis, that is to say, supported and conducted by the county. This is an ideal arrangement as facilities are thus provided to reach patients covering a wide area and by county nursing service a more effective check-up can be made on the attendance of patients. The idea of a county as a general health unit is encouraged and undoubtedly in time will extend to all counties. Local boards of health

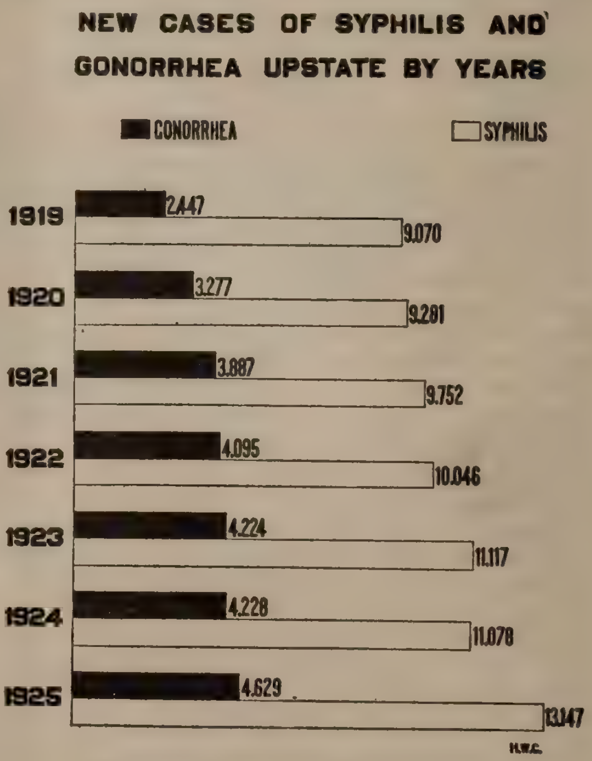

Chart II. New Cases Upstate by Years.

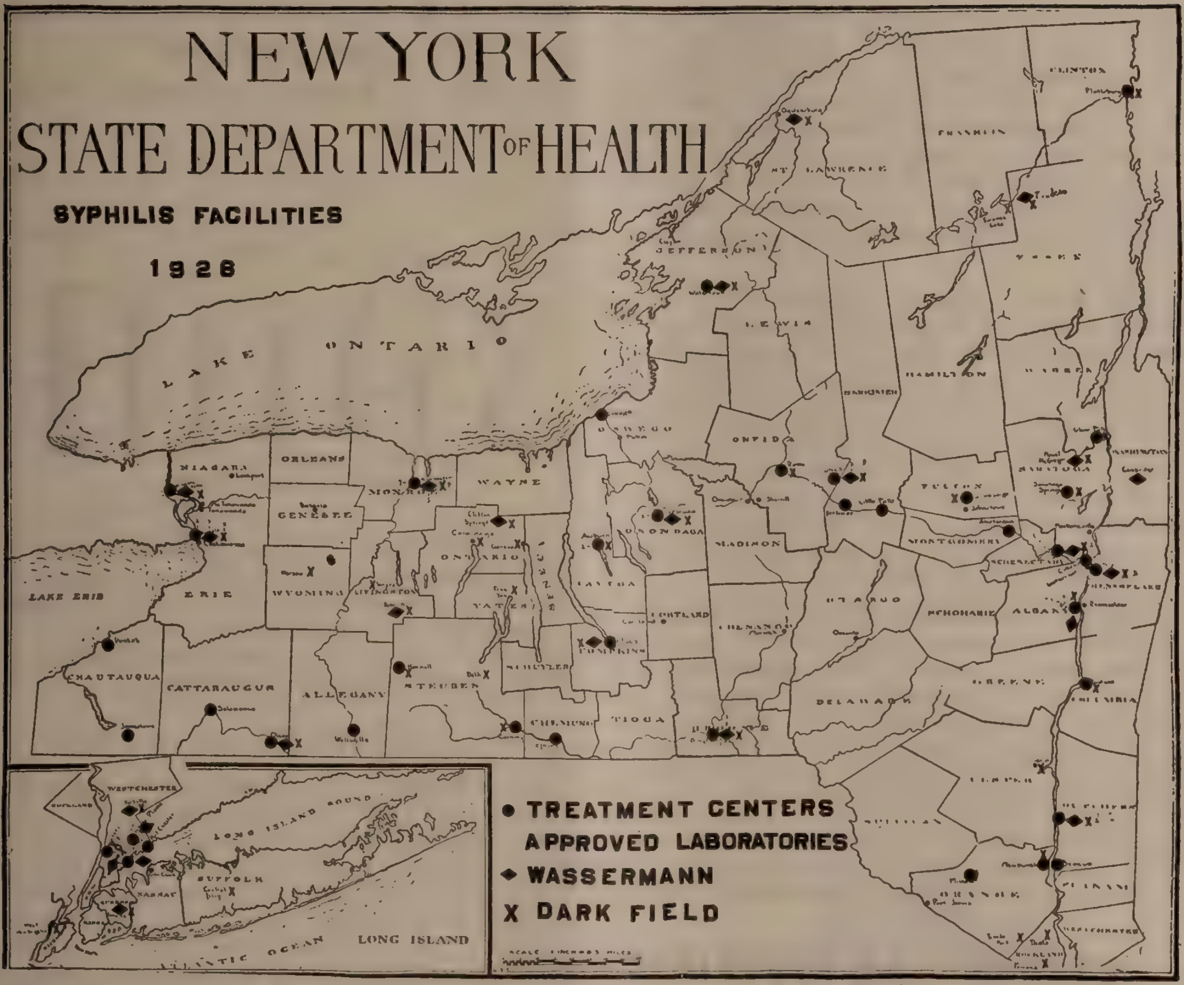

Chart III. Map Showing Clinics and Laboratory Facilities.

by statute must provide treatment for indigents with gonorrhea or syphilis in an infectious state. This is mostly applicable in the large rural areas which are more or less inaccessible to treatment centers. The Department provides the arsenicals required for the treatment of syphilis. Sulpharsphenamine is usually supplied in these cases as it requires no elaborate apparatus for its technique and administration.

Cooperation of Physicians.—Every effort is made to aid the general practitioner in his diagnosis and treatment. Information regarding new diagnostic procedure, the latest pharmacological preparations and unusual methods of treatment is disseminated through lectures, letters, reprints and in timely articles in the Department's weekly publication "Health News" and in the State Medical Journal. The addresses at medical meetings are illustrated by slides, technical films, moulages or by actual cases. The circular letters emphasize salient points frequently overlooked and invite attention to worth-while current articles.

The outstanding feature last year was participating with the State Medical Society at its annual meeting, the entire last day of which was devoted to the consideration of syphilis from every angle in all its forms and manifestations. The unusual interest was manifested by the large attendance, more than 500, over 100 of these registering on this, the last day of the meeting. The Director assisted in preparing a booklet entitled "Fundamentals of Syphilis." About 20,000 copies were sent under the frank to doctors in the State and in adjacent territory.

Method of Reporting.—The reporting of cases is by the indirect method. The Sanitary Code provides that "every physician shall submit promptly to the laboratory of the State Department of Health or to a laboratory approved by the State Commissioner of Health for this purpose such specimens for laboratory examination and such data relating thereto, as may be prescribed in the special rules and regulations issued by the State Commissioner of Health from every person affected with or suspected of being affected with syphilis, gonorrhea or chancroid." The number of physicians who are known to be submitting blood specimens or smears to approved laboratories is about 40 per cent. of the total number registered. There can be no doubt as to the increasing attention that is being given to the diagnosis of these diseases. During 1925 the late cases of syphilis reported exceeded those of the previous year by 500. In one city every physician was known to have submitted specimens. (Chart No. VI—Examinations in Laboratories.)

Clinics as Teaching Centers.—The use of clinics as teaching centers for physicians and for the patients is advocated. Physicians are encouraged to attend for instruction and to send to the clinic patients that are unable to pay for all the treatment that may be necessary. A social service that finds patients who can pay a fee and sends them to physicians helps greatly to obtain the necessary cooperation of practitioners. Social hygiene literature can be disseminated through the venereal disease clinics.

Druggists Discontinue Sale of Nostrums.—To futher insure none but scientific treatment for patients, the handling of nostrums and proprietary quack preparations by druggists has been strongly disapproved. The entire state has as yet not been covered, but the Department's representative working in conjunction with the Milbank demonstrations in the city of Syracuse and in the county of Cattaraugus has been highly successful. In Syracuse the majority of the druggists immediately discontinued stocking these preparations while the local pharmaceutical society promised complete success by the end of the year. In Cattaraugus County every druggist was willing to cooperate, and stock valued at over a thousand dollars was destroyed or sent back to the wholesalers or manufacturers.

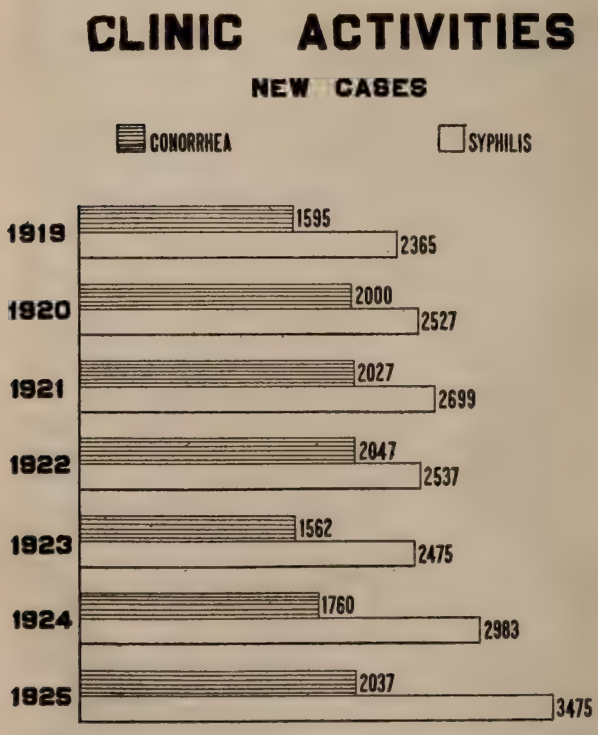

CHART IV. Clinic Activities Shown.

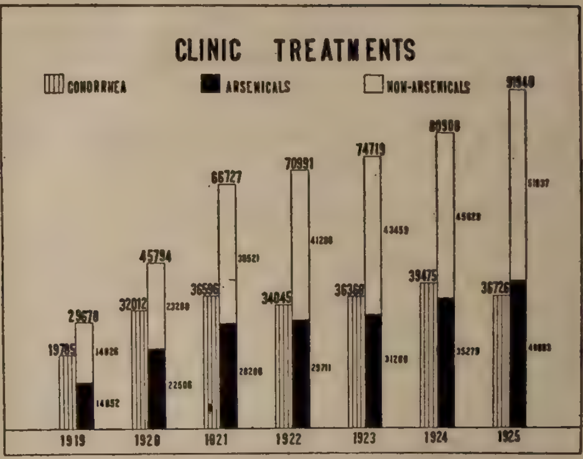

CHART V. Clinic Treatments.

(Chart No. VII—Diseases of Youth)

In examination of the gonorrhea cases for males according to age it is noted that there are few cases in any one year until the 14th and 15th years, and after that the number rises rapidly until the 22nd year, when it reaches its maximum. In the case of females the cases are much higher from 1 to 10 years than from 10 to 15. In the 15th year there is again a marked increase when the number of gonorrhea cases is three times the number in the 14th year and continues to rise until the 22nd year with the exception of the 21st year when the number is one less than for the 20th year, which is of no statistical significance. The fact that the cases have increased so materially in the 14th year for boys and in the 15th year for girls indicates that at these ages there is some new factor operating in spreading these contagious diseases. Probably this new factor is due to sex promiscuity among adolescent youths. If the marked increase in the incidence of syphilis and gonorrhea at the beginning of puberty is due to sex promiscuity, then constructive measures for preventing the spread of these diseases, such as character building and training in sex hygiene must be given to the youths before they reach the age of 14. (Chart No. VIII—Sex Delinquency.) Sex education is for the protection of boys and girls and should be given before they are exposed to temptations. Failure in giving such instruction and developing the sense of social responsibility in adolescent youths places the responsibility for these infections upon parents, educators and society in general.

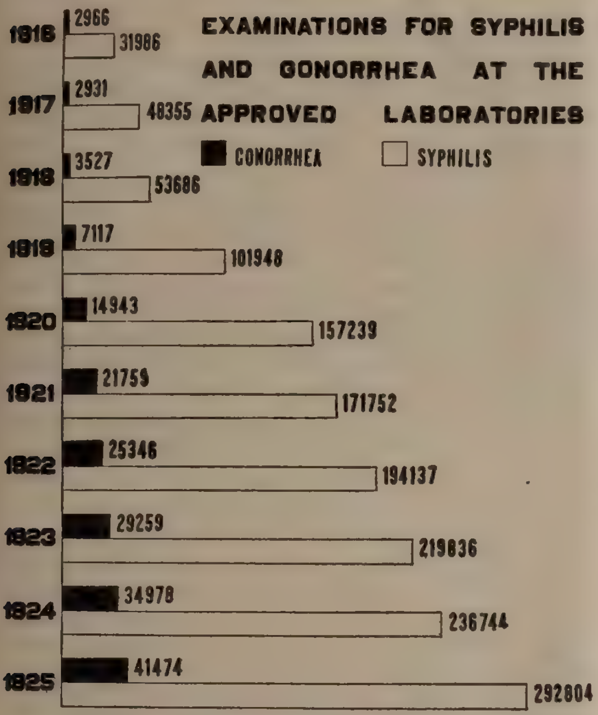

Chart VI. Examinations in Laboratories.

The young people who have not had sex information imparted to them and have not had positive, dynamic and impelling reasons given for living in a way that will meet their approval years later are not immoral, if they have loose sex relationships, but rather unmoral.

Educational Measures.—An effective public health program must include educational measures. In the case of social hygiene this must of necessity be a many sided and difficult task. It includes:[1]

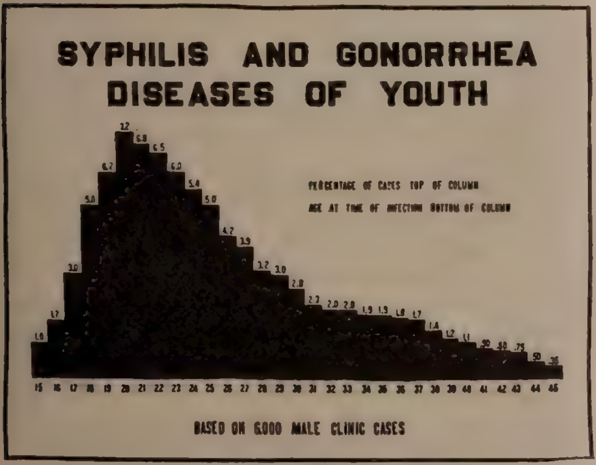

Chart VII. Diseases of Youth.

1. The convincing of local health officers that the control of syphilis and gonorrhea is a local problem for which they are responsible and at the same time giving them an effective and yet practical and workable community program.
2. The supplying of physicians with the latest information regarding diagnosis, prognosis and treatment, and emphasizing persistently the public health aspect of control measures to the medical profession.
3. The disseminating of extensive propaganda among the lay people so that they will recognize the control of syphilis and gonorrhea as an urgent public health problem and will be willing to support official and volunteer agencies in their activities and initiate and participate actively in such phases of the work as may be necessary in order to protect the public and prevent new infections.

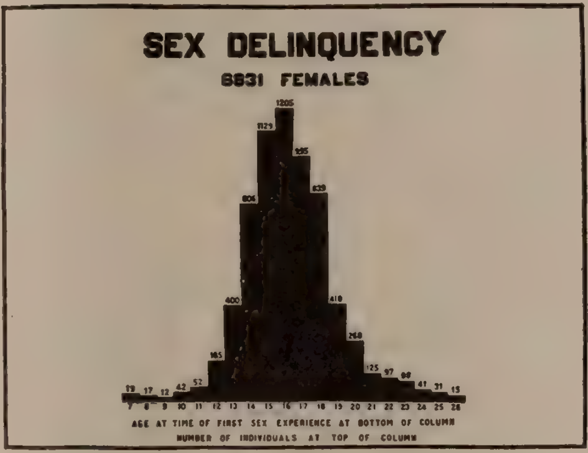

Chart VIII. Sex Delinquency.

These various ends are accomplished chiefly through interviews, lectures and publicity.

Through interviews, officials and influential persons are made to see that they are responsible for the control of these diseases in their community. The incidence of syphilis and gonorrhea can be reduced materially only when each community recognizes it as a local problem.

Lectures.—The giving of lectures has in general three aims:

1. In communities not interested in social hygiene, talks are given to impress the public with the menace of syphilis and gonorrhea and the need for their control. This was the most important phase of educational work when the Division was organized but since this phase of public health is now recognized by all progressive communities, this type of lecture has been superseded in general by those of a more specific character.
2. In communities already interested in social hygiene where there is a group of influential men

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[1] Vide, 1925 Annual Report, Division of Social Hygiene, N. Y. State Department of Health.

and women prepared to initiate and carry out on a permanent basis a practical social hygiene program, lectures are given in order to develop a public opinion for the support of these leaders in their various activities.

3. Lectures are given to demonstrate how educational work can be initiated, developed and carried out successfully. Examples of such types of lectures are those given in colleges, normal schools and high schools. The purpose here is not primarily to impart information or to develop character in the individuals but rather to give a concrete example to the faculty, of the subject matter and method of presentation with the idea that the work will be carried out afterwards by the professors or teachers of the institutions. Sometimes it is necessary or desirable to give such a demonstration in the same institution for two or even three years, but if the work is successful, it should become within that period an integral part of the curriculum under the direct supervision of a resident member of the faculty. The state lecturers released from this group seek to interest other educational groups. This is a somewhat slow but effective way of getting this phase of personal hygiene incorporated permanently in the school and college courses of instruction.

The most notable achievement in the lecture field during the year was having the State Parent-Teacher Association feature social hygiene in their local clubs. It is evident that the officers responsible for making this cooperative arrangement between the State Parent-Teacher Association and this Division did not misjudge the desire of their membership on this question, since the educator assigned to this work for a period of three months was literally flooded with requests. Definite bookings were made for a year ahead and the requests continued to come. The rapid growth in the demand for lectures by the Parent-Teacher Association is shown by the fact that in 1923, five lectures were given; in 1924, 22 lectures; and in 1925, 72. The speaker detailed to meet these groups has been unusually successful. Approximately one-eighth of all the women attending these meetings have taken the trouble to write for literature covering the various phases of the subject and many of the groups have arranged for the speaker to address high school girls. The Parent-Teacher Association has 577 local clubs with an aggregate membership of 33,758. It is obvious that this is one of the most important groups to reach in a social hygiene educational program:

1. Because it is the privilege and responsibility of the parents to impart sex information and develop the character of their children;

2. Because the teachers should recognize sex problems as such and know how to meet them successfully·

3. Because parents and teachers will perceive that all children will not get proper instruction at home. Hence the parents will request necessary school instruction in social hygiene and teachers should be willing and able to accept this responsibility;

4. A study of the social hygiene measures necessary to make education an effective prophylaxis will convince these groups that few parents are both able and willing to inform and guide their children satisfactorily. Most parents are either unwilling, although able, or else unprepared for this training of adolescents. For these reasons it is apparent that it will be a long time before the majority of children receive sex instruction in the home, although this would be the ideal place. The effectiveness of universal home instruction cannot be estimated, for even those receiving excellent home training have the destructive influences of their playmates to combat. For the sex attitude of youths trained properly in sex matters will not be respected or understood by their untutored comrades, and they will be subjected to the ridicule and vulgar sex discussions of their associates whose sex training has been lacking in truth, purity and idealism. If the youths as a group are to be protected from syphilis and gonorrhea through education and character building, all youths must share in this training. Thus it will be seen that when the Parent-Teacher Associations appreciate the importance of this work, they will desire to have a sound practical method of sex instruction in the schools, the teachers will be familiar with the reasons for sex instruction and the school authorities will realize that in incorporating such courses in the curriculum, they have the wholehearted endorsement of the parents. Simultaneously with the creating of a demand for school instruction in social hygiene there should be carried on a program for the training of teachers. The Division is cooperating with normal schools in the training and developing of teachers for this fundamental and essential instruction.

Publicity.—Although interviews and lectures are the best and most efficacious ways of disseminating information, these methods have decided limitations.

For example, the personnel of the Division's staff of educators is insufficient to reach more than a small proportion of the people. In the last seven years only one-tenth of the number of people upstate have been reached by lecturers. Obviously, it is impracticable to depend solely upon a means of public education which would require seventy years to reach the entire population once.

Since the educators can reach at best only a small percentage of the people, it is desirable for them to work in the larger communities where the attendance at the lectures will be reasonably large in order that they may reach the greatest number in the least possible time. This means that rural communities must be neglected largely. To illustrate, during the past seven years lectures have been given in only 576 communities although there are approximately 2,500 post offices upstate.

In the endeavor to reach so far as possible adolescent youths and those directly responsible for the guidance of these young people, it usually results in having an opportunity to address a particular group but once. The formation of character, the creating of good habits or the abolishing of bad habits is a tremendous task and little permanent good along these fundamental lines can be accomplished in a single lecture.

In presenting this intricate subject in a formal address, there is a tendency for the speaker to err in one or two ways. The talk is either centered around a few essential facts and the entire problem seems simple or else the many phases of the subject are touched upon, revealing the complexity of the problem and overwhelming the individual who feels that the control of these diseases is practically hopeless and that the little a single individual can do is hardly worth while. These hazards are being avoided by employing experienced and qualified lecturers.

The cost per person reached by educators through interviews and lectures is so high that there is little possibility of increasing this service. Therefore the present aim is to concentrate on developing leaders rather than reaching large general groups.

These are some of the outstanding reasons which make it necessary to supplement this educational work by other means if there is to be any hope of reaching the public in general. Some activities which have been tried and found to complement the work of the educators to some degree are: circular letters, radio talks, informational pamphlets and newspaper publicity.

Circular Letters.—A year ago the possibility of supplementing the activities of the educators by means of circular letters to the lay people was considered favorably and initiated. A modest mailing list of approximately 5,000 names was gotten together and four or five letters sent. From the very start there was an unexpectedly large response to these circular letters, which were most favorably received and the aims of the Division were highly commended. The unexpectedly liberal response to these letters was convincing evidence that they filled a real need and encouraged the Division to continue and enlarge this feature. A more comprehensive mailing list of approximately ten thousand names was developed. The list was made up of about an equal number of men and women residing in more than nine hundred communities. Great care was exercised in selecting the names and each was keyed for checking purposes. In general the list was made up of officials of health organizations, judges, librarians, superintendents of schools, principals of high schools; public health nurses; officers of volunteer welfare associations; men and women responsible for guiding adolescent youths; presidents of associations such as the Parent-Teacher Associations, women's clubs, luncheon groups, etc.

There are many advantages in having a mailing list known to be composed of intelligent broad-minded people, interested in civic improvement. The letters can be frank and direct, giving a definite and scientific statement of the problems with suggestions as to how these have been met successfully in certain communities. A single point can be stressed in each letter. The letters may be made progressive. All of the people addressed are interested in social betterment and can reasonably be expected to be willing cooperators in the control of syphilis and gonorrhea and especially in their prevention when they understand the urgency of the problem. Although the success of the circular letters the previous year had given an assurance of the desirability of this feature, it had not prepared the Division for the tremendous response it was to receive from this new series of letters. Some of the tangible results from this rather brief and limited campaign of publicity will give an idea of the response of the public to this feature.

Although no attempt was made to have the letters appear other than form letters, each one brought many replies, invariably commending the activities of the Division and expressing satisfaction at having the information sent in that particular letter. For example, one of the letters brought a request for literature and information from a person in charge of selecting the reading material for a group of fifty thousand men.

This particular letter brought requests for either pamphlets or further information from over twelve hundred other people residing in more than four hundred different communities.

Another letter created considerable interest in the lecture activities of the Division and brought definite requests for lectures to groups augmenting more than twelve thousand. These were all organizations not previously reached.

The recipients, from time to time during the year have sent in more than one thousand names of friends to be added to the mailing list. In this manner the Division has been put in touch with some very influential people who are directing health and welfare activities in their respective communities. The physical director of the public schools in one large city requested that the seventy-eight instructors under his supervision be sent a copy of a particular letter. Numerous superintendents of schools have sent, unsolicited, the names of all teachers under their jurisdiction to be added to the mailing list. A number of people who have moved out of the State have written expressing a desire to have their names continued on the list. Others from outside the State who have found out in some way about this educational service have asked to receive the letters, justifying their requests by their official positions and ability to make the information available to numerous others within their respective communities.

This form of publicity certainly has some definite advantages over any other educational work. It is possible to reach the people responsible for the health conditions of their communities. Those influential people who ultimately determine the social conditions in their towns can be informed regarding the menace of syphilis and gonorrhea. Each person can be reached four to six times during the year and not have to depend upon one contact. Repetition has a definite cumulative effect. The communications may be written to meet definite emergencies and the interests of people in every part of the State may be secured simultaneously. The known leaders of hundreds of communities are addressed, multiplying the effectiveness of the work many fold. The majority of the persons reached would probably not come in contact with this work in any other way. The rural communities can be definitely served. The cost per letter or even for the series of letters is only a small fraction per capita of what it would be for a lecture.

Radio Talks.—The potential possibility of the radio for reaching people in the remotest parts of the State and those who probably would not be in contact with the activities of the outside world to any great extent, arouse many fascinating speculations in the mind of a publicity man. However great the possibility may be in such publicity, some persons felt that it would be impossible to give a social hygiene talk which would be both acceptable and of real value. That the subject of social hygiene has no inherent obstacle which cannot be overcome in preparing a radio talk has been shown definitely. Two such radio talks were given last year, each pointing out in a very definite and unmistakable manner certain social hygiene problems and suggesting ways for meeting these conditions. An unusually large number of local newspapers throughout the State mentioned these talks. Many requests for literature resulted directly from the talks and indirectly from the newspaper reports. One statewide organization in the Middle West determined to feature social hygiene in its educational program during the coming year, after reading the report of the talk, and wrote to the Division for specific information. Unquestionably this is a field which can be developed and utilized more extensively. A series of social hygiene talks have been approved and will be given from WGY during the coming year.

Pamphlets.—An attempt during the past two years has been made to work out a practical plan for the profitable distribution of pamphlets. Although the plan is yet in the formative stage, the marked success with which it has met warrants an outline of the procedure. There was a constant decrease in the number of pamphlets distributed from 1919 to 1924 inclusive. During 1925 there was a marked increase; about one-third more pamphlets were distributed than during the preceding year. When the Division was first established, pamphlets were distributed rather generally on the theory that a certain per cent of them would be read and therefore the larger the distribution, the larger the number of copies read and the greater the dissemination of the information. Undoubtedly this was true to a great extent. However, it was a rather expensive manner of reaching the masses of people.

Last year, there was no general distribution of pamphlets, but instead certain selected mailing lists were circularized and a definite effort was made to let the public know what pamphlets were available, through the distribution of postcards for requesting the literature. It was through the postcards that the increase in pamphlets distributed can be most largely attributed. Another factor was the issuing during the year of several new pamphlets.

The number of requests for literature by years shows a rather definite progressive decrease year by year from 1919 until 1924. In 1924 the number of requests would have been even less if the efforts for stimulating this phase of the work had not been inaugurated. About 600 of the requests for 1924 could be traced to a definite publicity campaign. For the year 1925, the number of spontaneous requests received in Washington and in Albany were about the same as for the preceding year, namely about 2,000. The other 5,200 requests are known to have resulted from certain definite efforts of the Division, namely, 841 requests were the result of lectures and the remaining, approximately 4,400, were due to the publicity campaign carried on by the Division. Although the program for publicity and distribution of literature is not perfected, the results for the past two years are sufficient to warrant the following conclusions: (1) that the public is eager for information and will take the trouble to write for literature if they know where to write and what is available; (2) that a publicity campaign along constructive lines will meet with more than fair success—out of 10,000 people circularized several times, more than 4,000 took the trouble to write in, commending the work or requesting literature; (3) that the distribution of literature in response to specific requests is not only more economical but also more effective.

Use of the Daily Press.—Effective advance copy relating to the speakers and subject matter augments materially the attendance at the lectures and a report of the principal points emphasized in the address is always welcomed by progressive newspapers. Thus, it is possible to have at least two news items for each lecture. Frequently the attendance at a lecture will not exceed fifty persons but the newspapers in the same community may be read by several thousands and if the lecture is reasonably well reported, and it will be if the lecturer provides the papers with acceptable copy, at least a few cardinal points will be gotten across to the much larger reading public. By incorporating into the news items a statement regarding the available pamphlets a proportion of the readers will request literature. There is no phase of the general education more important than getting the newspapers to announce and to report lectures. In this manner the masses are reached directly through a medium acceptable to them.

During the past year one hundred and twenty-nine articles were carried by various newspapers which have endorsed, supported and advanced the Division's constructive program.

Legal Measures.—While the general effectiveness of public health activities depends mainly upon an enlightened public opinion, a certain amount of legislation is necessary. There is always a small percentage of more or less recalcitrant individuals, to control whom special legislation seems required. The present laws and regulations governing gonorrhea, syphilis and chancroid are deemed adequate and have been compiled and printed in pamphlet form for distribution to all interested. In many instances the enactment of statutes has an educational value. An example of this is the Domestic Relations Law which requires city and town clerks to obtain from each of the contracting parties applying for a marriage license, a signed statement that they have not been infected with a venereal disease, or if infected within five years, that the laboratory tests are now negative. Prostitution is not legally sanctioned and there are no authorized red light districts. The Division keeps in close touch with probation officers and judges in a consulting capacity regarding policy and enforcement of legislation.

THE ROLE OF CARBOHYDRATES IN INFANT FEEDING*

By LINNAEUS EDFORD LA FETRA, M.D., NEW YORK, N. Y.

CERTAIN facts about the carbohydrates are so well established and so well known as not to need discussion, viz.:

1. That the sugars, dextrins and starches are the most economical source of energy, some being absorbed as ingested, and others requiring but little digestive effort.
2. They furnish energy chiefly for heat maintenance and muscular activity; they build up the glycogen reserve and may be converted into stores of fat.
3. They spare proteids, thereby lessening the amount of nitrogen excretion otherwise necessary; moreover they may, to a certain extent, be utilized to build up certain useful amino-acids.
4. They can replace the fats to a very large extent—up to the point of not causing deficiency in the fat-soluble A and the antirachitic vitamins.
5. They serve, when properly utilized, to prevent acidosis.

Certain other facts about the carbohydrates are not so well recognized, and it is to these that I wish to call attention, viz:

1. The various carbohydrates have different rates of absorption in the digestive tract, the simpler monosaccharids being absorbed more quickly than the complex sugars, dextrins and starches.

Flood† has shown that, of the monosaccharids, dextrose is most rapidly absorbed, then galactose, and finally levulose; and that the disaccharids maltose, lactose and sucrose, show some of the characteristics of their component monosaccharids. He states further that the absorption of any polysaccharid depends first on the speed and ease with which it is hydrolysed into its component monosaccharids, and secondly, on the specific absorption rate of these monosaccharids. For convenience he classifies the sugars into I. those which give only dextrose on complete hydrolysis; and II. those which do not. Dextrose does not have to be changed to be absorbed, whereas galactose and levulose must probably be converted into dextrose before being absorbed. This conversion takes time and energy not needed by the dextrose, and meanwhile the galactose and levulose are passing further down the intestinal tract. In the dextrose group are, besides dextrose, maltose, Karo syrup, and dextrimaltose. The maltose consists of 2 molecules of dextrose; the Karo syrup consists of 34 to 36.5 per cent dextrose, 4 to 19 per cent maltose, and 29 to 45 per cent Dextrin. Dextri maltose contains about equal parts of dextrins and maltose, but has no immediately available dextrose. All the members of this group have a comparatively rapid absorption time, and therefore are less apt to reach the lower bowel where fermentation takes place. They are useful, especially dextrose, in fermentative diarrheas, particularly those accompanied by acidosis.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

† *Jour. Amer. Med. Assoc.*, May 17, 1924, page 1595; and *Archiv. of Pediatrics*, January, 1925, page 50.

In Group II, lactose and sucrose are broken up into galactose and dextrose and into levulose and dextrose respectively. Their laxative action can be explained partly by the slower rate of absorption of their component galactose and levulose, and partly by the deficiency of the respective hydrolytic enzymes during the early months of life.

Honey is a mixture of dextrose and levulose with the levulose predominating. The dextrose is quickly utilized, but the levulose being more slowly absorbed passes further down the intestine and may reach the colon, where its fermentation produces a laxative effect. It is seen then that the dextrose group is readily absorbed and has little laxative effect; the lactose-sucrose group is poorly absorbed and has a marked laxative effect, while honey occupies a middle position, part being readily absorbed, while another part is poorly absorbed and has a laxative action.

The dextrins and starches must undergo further changes to be converted into maltose and finally dextrose; hence they pass further down the intestine before being absorbed; if in excess, the starch, the dextrin and even the maltose or dextrose may reach the colon.

2. The different sugars, until absorbed from the intestinal tract, have special tendencies to different types of fermentation.

Many years ago Rotch called attention to investigations by W. G. Aitchison Robertson* on the main types of fermentation the various sugars are prone to undergo. They can be arranged in accordance with the rapidity and ease with which they become converted into lactic acid, butyric acid, and alcohol or acetic acid as follows:

Lactic Acid	*Butyric Acid*	*Alcohol and Acetic Acid*
Levulose	Levulose	Maltose
Lactose	Maltose	Sucrose
Dextrose	Dextrose	Dextrose
Sucrose	Sucrose	Levulose
Maltose	Lactose	Lactose

It is seen that levulose and lactose are most prone to lactic acid fermentation, maltose least so; levulose also most readily undergoes butyric acid fermentation, lactose least; while maltose is most prone to alcoholic and acetic fermentation, lactose least so. Dextrose occupies a middle position throughout. These observations would suggest the advantage of substituting maltose for lactose in cases of lactic acid fermentation and of using lactose instead of maltose in both butyric and acetic fermentations.

A consideration of these tendencies to fermentation is of interest when taken in connection with the rate of absorption of the various sugars. Dextrose is most readily absorbed but has but slight tendency to fermentation; it is therefore the sugar of choice when one wishes rapid absorption and desires to avoid fermentations. Mixtures of the various sugars and other carbohydrates tend to prevent any single type of fermentation; being gradually hydrolysed they are absorbed at different levels down to intestinal tract. In cases of putrefective disturbance, moreover, the sugars encourage the growth of antagonistic fermentative bacteria, especially those forming lactic acid. This is of advantage not only in putrefactive conditions, but also as Torrey has shown in cases of typhoid fever, the lactic acid bacteria being antagonistic to the typhoid bacilli.

As regards dextrose now available at a cost of about 50 cents per pound, I have used it with great satisfaction in many cases of diarrhea and mal-nutrition, substituting dextrose for the other sugars added to the milk. I need only allude to the successful employment of dextrose parenterally, either by the intravenous or intraperitoneal route in severe cases of dehydration, of cyclic vomiting and of acidosis, either without or with the administration of insulin. The use of Karo syrup, especially in lactic acid milk, has been popularized by Marriott.

Thick cereal feedings have been used with remarkable success in cases of rumination and of pylorospasm; they owe their success probably not only to their thickness and bulk but also to the mixture of various carbohydrates they contain. The banana has been used for years for infant feeding by people of the tropics, and the Cubans have also a bananina flour which is very popular. Pease† in 1917 called attention to the value of fully ripe or baked banana as a carbohydrate for young children, and since that time it has been more widely used. Haas has emphasized its value in the malnutrition of coeliac disease. Ripe banana contains 22 per cent of carbohydrate largely sucrose, with a caloric value of 447 per pound—somewhat more than white potato which has a value of 378 calories per pound, and less than sweet potato with 558 calories per pound. The absorption in Pease's cases was almost complete—98 per cent.

Mixed sugars including honey are especially valuable in older infants that have constipation with gaseous distension of the abdomen from eating too much bread and potato.

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* *Edinburgh Medical Journal*, March, 1894, page 803.

† *Am. J. Diseases of Children*, November, 1917, page 379.

In fevers where there is always a tendency to depletion of the glycogen reserves and hence to acidosis, dextrose and the other readily absorbed carbohydrates have an important function. In typhoid fever, where a high calory diet is advisable, they are especially valuable.

The acidosis occurring after operations, whether due to vomiting or to interference with liver function, is fortunately less frequently seen, since the practice of pre-operative starvation has been abandoned. In children, however, who are so susceptible to acidosis, not only should there be no starvation period, but special effort should be made to increase the carbohydrate in the body. Operations on children should, if possible, be done in the early morning. Supper on the preceding night should contain a large quantity of carbohydrate—mixed sugars and starches; during the night or very early in the morning the child should have several ounces of orangeade or lemonade, sweetened with dextrose. This will not only build up the carbohydrate reserve, but will add water and alkali—all very important in preventing acidosis or the excessive vomiting which may result in acidosis.

3. Carbohydrates should be furnished in the diet of infants and children to the amount of about 50 per cent of the total calories.

Powers,* in an analysis of the various milk mixtures used for infants, found that the combinations most successful do not resemble breast milk, but rather dilutions of condensed milk or Pirquet's "dubo" mixture, in which to whole milk 17 per cent of sugar is added. In this majority group, instead of 50 per cent added sugar, as in "dubo," 40 per cent of the calories are added carbohydrates, 60 per cent being furnished by whole milk. The distribution of the calories showed protein about 13 per cent, fat 30 per cent and carbohydrate 57 per cent. In some cases the carbohydrate was as high as 75 per cent, 15 per cent being fat and 10 per cent protein. Malt soup mixture No. 1 contains 14 per cent protein, 14 per cent fat and 73 per cent carbohydrate. Higher protein and fat with less carbohydrate would seem desirable as a rule, especially with young infants.

Holt* investigated healthy children from 1 to 18 years of age and found the distribution of the calories was on the average protein 15 per cent, fat 30 per cent, carbohydrate 51 per cent of which carbohydrate a little over one-half was given as sugar. Gebhart found that the healthy active boys of St. Paul's School consumed 600 grams of carbohydrate daily, or nearly 2,500 calories per day, much of this being in the form of sweets bought at the tuck shop. The craving for sugar on their cereals, for sweet foods and for candy is physiological; but sugars should not be permitted in the diet in such quantity as to diminish the needed proportion of protein and fats, nor so as to disturb the appetite or digestion. In this connection it may be noted that Mahler has shown that while galactose, dextrose and maltose are fairly strong stimulants to gastric hydrochloric acid secretion, and 5 per cent sucrose also is a good stimulant, a 20 per cent. solution of sucrose uniformly lowered the HCl output. Excess of sugars lessens the appetite and may result in vomiting or diarrhea; excess of starches is apt to result in gaseous abdominal distension and constipation. Moreover, as Holt has pointed out, dental caries may be one result of excessive sugars in the diet, since Arctic peoples who subsist largely on proteins and fats seldom suffer from defective teeth.

Finkelstein† has emphasized that though carbohydrate does not itself enter into the composition of cell protoplasm it induces retention of protein salts and water, being the chief influence by which water and water-containing constituents are stored in the tissues. In infants of the hydrolabile type, therefore, the carbohydrate should be reduced, the fats increased and the proteids kept at a moderate amount. In such infants the weight curve should be kept rising at only a slow rate. In cases of the exudative diathesis, also, the carbohydrates should be kept low.

Knowledge of the foregoing facts should be useful in correcting many digestive disturbances, in securing gains in weight, and in preventing or overcoming acidosis.

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* *Am. J. Diseases of Children*, October, 1925, page 453; 'Food, Health & Growth, Macmillan, 1922, page 142.

† *Archives of Pediatrics*, April, 1924, page 219.

THE VITAMIN VALUE OF SOME COMMON FOOD STUFFS*

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As the Science of Nutrition advances and as popular knowledge of its laws increases this progress is reflected in the advertising of the food manufacturer. What was for a time pure psychology is becoming, at least in part, physiology. I mean by this that instead of basing his appeal solely on form and the laws of mental appeal, he is rapidly coming to include a more careful statement of the values of his product. He is quick to realize that the public with its new knowledge isn't going to believe claims that are too sweeping and that they wish to know just what his product contributes to the diet. Such data is impossible either in text or advertisement without quantitative assay of food values.

In the case of calorie values, nutrient content, and the like, such values have been available for some time. The advent of the vitamins, their kind and effects is, however, recent science. The development of adequate assay methods is still in process of evolution. On that account it has seemed worth while to review today some of the recent findings in this field of assay and some of the difficulties that we are meeting in developing the type of analysis desirable.

I will take my first example from some experimentation just completed in my laboratory on the antiscorbutic value of ripe bananas. Before this work was begun there had been so far as I can learn only two such studies and both of these with basal diets since shown to be lacking in other factors than vitamin C. Also in both these studies the conclusions stated amounts that would protect experimental animals (10-15 grms.) but not the minimum protective doses. Lack of this latter data made impossible quantitative comparisons with other sources of the vitamin.

Much of the methodology that is advancing the accuracy of vitamin analysis is the product of the laboratory and students of Professor Henry C. Sherman of Columbia University. To Sherman and LaMer we now owe a basal diet which contains all known factors necessary to the life of the guinea pig except vitamin C. This diet consists of the following ingredients:

Ground whole oats	59 parts
Vitamin C—free skim milk powder	30 parts
Butter fat	10 parts
NaCl	1 part

It is with the aid of this diet that we have within the past three years studied the antiscorbutic value of many foodstuffs. Table I gives some of the results to date:

TABLE I

SOME VITAMIN C VALUES RECENTLY DTERMINED[1]

Food Stuff	*Min. Protective Dose*	*Comparisons in richness*
Standard (Orange Juice)	1.5-3 gms. (unit 2 gms.)	1.0
Bananas (raw and ripe)	5 gms.	0.4
Bananas (yellow baked in skins)	less than 6 gms.	0.2
Apples, fresh picked	10 gms.	0.2
Apples, cold storage	20-40	0.1-0.05
Canned apples	7-40	0.5
Canned apples, brine treated	20	0.7
Cabbage, raw	1.0 gms.	2.0
Cabbage, boiled	20 gms.	0.1
Cabbage, canned	4 gms.	0.5
Spinach, raw	¼-1 gm.	2-8
Spinach, cooked on stove	10 gms.	0.2
Spinach, canned	2-4 gms.	1-0.5
Peas, raw	2	1
Peas, stove cooked	5	0.4
Small peas, canned	3	0.66
Large peas, canned	4	0.5
Ave. peas, canned	3	0.66
Ave. peas, canned, reheated for table	3	0.66
String beans	5 gms.	0.4
Small string beans, canned	20 gms.	0.1
Large string beans, canned	over 30 gms.	0.08
Home cooked string beans	20 gms.	0.1
Sweet corn, raw	5 gms.	0.04
Sweet corn, boiled on cob	10 gms.	0.02

Much of interest to assay technique as well as to knowledge of vitamin C has been gained by the studies recorded in the table. To cite a few of them it is of keen interest to learn that a fruit which the researches of Myers and Rose have already shown to be easily digestible if eaten ripe and slowly, even by children of tender age, ranks close to the orange as an antiscorbutic and is the equal in this respect to some of our green vegetables, while it surpasses others.

A fact that was early suggested by Hess, namely that Vitamin C destruction is due largely to oxidation, has been confirmed in many ways by these studies. If for example we bake the banana in its skin it loses much less vitamin C than with the skin removed. Fresh picked apples suffer great loss of this factor in storage for the same cause. Foods sealed in cans before heating may then be heated for long periods at high temperatures with much less destruction to vitamin C than when they are cooked in open kettle, and such foods, due to the low oxygen content, do not suffer the same loss as their fresh oxygen—rich prototypes, even when reheated after removal from the can.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

[1] The details of the experiments on which this data is based have been published in part in the Journ. Med. and Eng. Chemistry.

Maturity is also seen to be a factor in richness of vitamin C, the younger leaves, seeds and fruits usually proving richer in this factor than the older, more mature forms. One of the most striking of our discoveries in the study of canned products was the efficiency of brine immersion of apples before canning in protecting the vitamins. That this treatment somehow protects against oxidation is indicated, but the methodology is at present a matter of research.

But not only in the field of vitamin C assay has progress been made. Practically all the earlier tests used the growth curve of the white rat as an index with a basal diet complete in all known factors except B. In most of these studies however data was expressed in amounts necessary to "normal growth." Now "normal growth" is too great a variable to serve as a satisfactory standard of comparison. Consequently some years ago Drummond of England suggested comparisons at levels of intake which would produce better than maintenance but subnormal growth, definite weight gains for example in a given period of feeding plus evidence that greater or lesser amounts of the source of B would stimulate greater and lesser growth.

In our experiments we have again used a basal diet and a procedure developed in Sherman's laboratory and comparisons based on a gain of 20 grams per period of 56 days per rat. When the richness in B is sufficiently great to permit feeding the source of B separately without reducing the consumption of basal diet to the danger point of inadequacy in other nutrient factors the method works well and permits assay of B value in foods impossible by the normal growth method. Chart I illustrates this method in its working. In the case of the banana it has enabled us to extend the previous work of Sugiura and Benedict who reported the fruit low in this factor, and to demonstrate that while it is relatively low as compared with certain rich sources of B, it is at least half as rich in this factor as good milk, pound for pound, and perhaps richer.

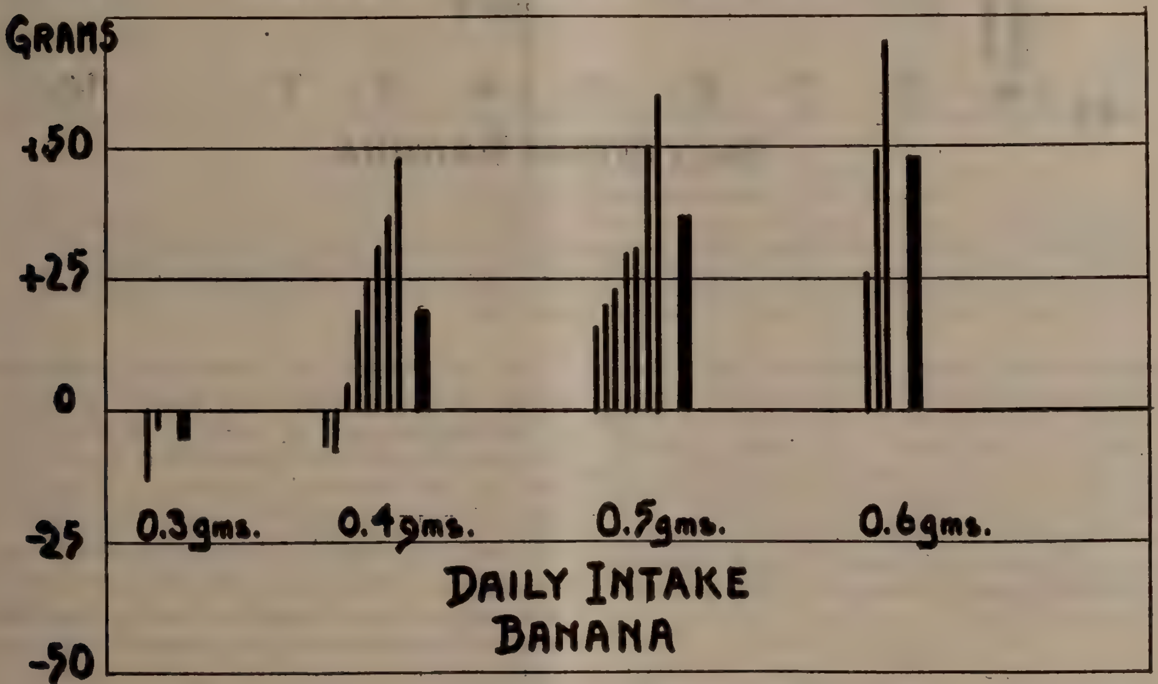

CHART I. The Vitamin A Value of Ripe Banana

The single lines show the individual gains or losses in weight of white rats in a sixty day period using the Sherman-Munsell basal diet and the daily intakes of banana indicated. The heavy lines are averages. Results show that more than 0.4 grams and less than 0.5 grams of banana are necessary to produce a 25 gram weight gain in sixty days when the banana is the sole source of vitamin A and the basal diet complete in all known dietary factors.

In the study of vitamin A assay also we have had to completely revise our earlier tests because of the discovery that this vitamin is stored in the tissues of the rat and that until freed of this stored vitamin he is almost worthless as a test animal. Our procedure now is to select animals from groups maintained on a uniform diet, to feed them on a basal diet

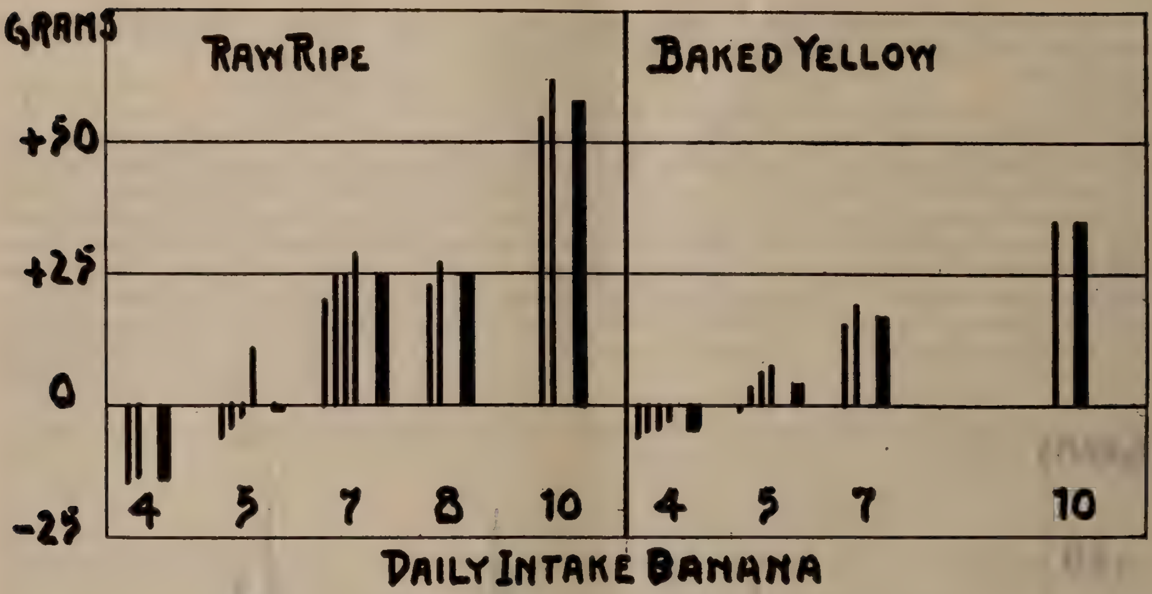

CHART II. The Vitamin B Value of the Banana (Preliminary Tests)
The single lines show the individual gains or losses in weight of white rats in a sixty day period using the daily intake of banana indicated and a basal diet adequate in all known dietary factors except vitamin B. The heavy lines are averages. Since it takes 10 cc. of tomato juice or 6 cc. of milk to produce a 20 gram gain in rats in sixty days under similar conditions it follows that 8 to 10 grams of banana is the equivalent of 10 cc. of tomato juice or 6 cc. of milk as a source of vitamin B.

complete in all factors except A until growth declines and indicates exhaustion of the stored resource, and only then apply the test. The standard in this case is 25 grams gain per rat in 56 days. A modification of this procedure is now a standard U. S. P. method. Chart II shows how this method revealed the richness of banana in vitamin A and permitted quantitative comparisons with other sources as shown in Table II.

TABLE II
RELATIVE VITAMIN A VALUES OF SOME COMMON FOODSTUFFS

Foodstuffs	*Amt. nec. to produce 25 grms. gain in 8 weeks*	*Relative Value*
Standard (Butter)	0.020 grms.	1.
Spinach	0.018	1.11
Egg yolk	0.020	1.
Carrots	0.040	0.5
Bananas	0.500	0.04
Cooked green peas	0.500	0.04
Lettuce	0.600-0.700	0.33-0.28
Apples	2.000	0.001

The development of a means of quantitative assay of vitamin value has been indicated in what has preceded, at least for B and C. It must not however be inferred that these methods are yet rigorously perfected. There are many issues undecided as yet. The diet of Sherman and LaMer for scurvy testing is not necessarily complete in all factors except C, and recent work suggests that a roughage added to this diet would improve it. We also are uncertain as yet as to whether the lack of vitamin D in the A testing basal diet is a limiting factor or not. Obviously too there may exist many other factors as yet undiscovered that will again make revisions necessary.

The present status and our problems are perhaps satisfactorily exposed by this presentation and a better basis for vitamin assay is certainly dawning.

THE DEBT OF RELIGION TO SCIENCE*

By HARRY EMERSON FOSDICK, D.D.

Pastor of the Park Avenue Baptist Church, New York.

THERE are three great professions, membership in which I envy any man: to be a teacher, to be a physician, or to be a minister, because the members of those three professions have the inestimable privilege of serving human life directly, putting themselves into the lives of individuals, and finding their reward in the help which they can bring to and the experience which they can have with individuals.

There are two great philosophies of life: it is either a trade or an art. It may be a trade where you see what you get out of it; or it may be an art where you try to do a fine piece of business for the love of high workmanship. And it is the teacher and the preacher and the physician that peculiarly have the opportunity to do that.

"You must give yourself to people," said Alice Freeman Palmer, of Wellesley, "and they give themselves to other people and so you go on working forever."

I represent the Church of which Dr. Phillips is a member. As metropolitan parishes go, the number of sheep in that flock is not large, but some of the sheep themselves are notoriously huge and Dr. Phillips is one of them.

How can I speak here, a minister, in the midst of a scientific fraternity of physicians, without thinking of the relationship between science and religion? Only you needn't be nervous. I am not going to talk about it in the ordinary tone of voice, because the ordinary tone of voice seems to be that there is a conflict between science and religion that somehow needs laboriously to be accommodated; whereas my experience is that when I deal with the highest type of scientific man, I find him most reverent, and when I deal with the highest type of religious man, I find him most impatient of credulity, and most desirous for scientific method.

So that tonight I am not going to talk about science and religion as being antithetical, contrary, in discord and disharmony. To be sure, there are certain types of science that have it in for religion.

I suppose that if you do insist on thinking of man as a materialistic mechanism and nothing more, that doesn't leave much place for religion. If we are nothing in the world but just materialistic mechanisms, so that all our thought, all our aspirations, all our ambitions for a better social order, all our science and all our art are as automatic as the sounds that a coo coo clock makes at midnight, it doesn't leave much room for religion.

I am perfectly sure that man is in one sense a mechanism, but it is one thing to be a mechanism like an automobile that you can within limits steer toward directions that you choose, and it is another thing to be a mechanism like a trolley car, that is not only driven from behind, but is set on certain rails that it can never leave. As a whimsical Englishman put it:

> "There was a young man who said, 'Dam!
> I clearly perceive that I am
> A creature that moves
> In predestined grooves.
> I'm not even a bus—I'm a tram."

I do not believe that man is thus a helpless mechanism. Indeed, isn't the thing that evolution has been working for from the beginning the achievement of that measure of liberty that enables a man intelligently to take charge of and direct his own life? Matter is predetermined. The planets can be accurately predicted as to their exact place centuries ahead, but just as soon as life emerges, predictability begins to cease. As one of our leading biologists said, "You can take three observations of a comet and three observations of a cat, but it is much safer to tell where the comet will go than which way the cat will jump."

Even with that much life you begin to have difficulty in prediction, and then when at last man comes with his intelligence, with what the psychologists call his modifiable behavior, with that amazing capacity of his, after all the most astonishing thing in the universe, to project purposes ahead and work for them, there you get what a philosophically-minded man calls freedom, which is nothing in the world but the capacity of a man within limits to take intelligent charge of his own life. With that much freedom, religion has its place.

I suppose there is another kind of science that does not leave much room for religion. I think it is pseudo-science, that once upon a time, a long, long time ago, nature produced some germ plasm. Never was such germ plasm since the world began and never will be again. It is Nordic germ plasm. We have got it. Anybody who hasn't it is an inferior race, and we are forever and forever the superior race.

Of course the trouble with that is that it is not science. As one of the leading anthropologists in the United States said the other day, forgetting his scientific caution, "That is pure bunk." For I suspect if you could have taken a believer in hereditary foreordination when he was two years old and lost him by accident in the middle of the African jungle, and had him brought up by an African tribe impinged upon by the traditions of African savagery, knowing nothing else but the moulding influences of African custom, if he could have stood outside and looked at himself, he would stop saying heredity is everything and acknowledge that environment is something.

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*Address given at the dinner by the Medical Society of the State of New York, to Dr. Wendell Christopher Phillips, President of the American Medical Association, on January 27, 1927, in the Hotel Waldorf Astoria, New York.

But what I want to say tonight is that concerning anything like intelligent science and intelligent religion, let's stop talking about conflict. What I intended to do as a man of religion in the midst of a gathering of scientific men was to say that, in the name of religion, I wish to express gratitude to science. That is a tone of voice I hear all too little.

Let me tonight, as a minister speaking to men of science, say, "We who are trying to fight the battle of religion owe to science an absolutely unpayable debt." First of all for the new view of the universe that you scientists have given us. My friend, Dr. Breasted, the Egyptologist, says that once in Florence he had an awe-inspiring experience because they allowed him and his friend, Dr. Hale, the astronomer, to take from the Florentine museum the very telescope that Galileo had used. They took it up to the height of Fiesole, and on a clear night they looked at the heavens through the very lenses through which Galileo first had seen them. He said that it was an awe-inspiring moment to see the moons of Jupiter through the glass through which man's eye first had perceived them.

Think of the view that has been opened to our eyes since that day. Once it was possible to be a polytheist; you can't be a polytheist now. Whatever else may be true about this cosmos, it is unified until, as John Fisk used to say, "Every wind that sweeps the blazes of the sun sways every compass needle in every box on earth." Indeed, I am not so sure that that feat of Copernicus and Galileo was much more wonderful than the feat of that old Dutch janitor whose almost unpronounceable name, Leeuwenhoek, so few people know, that man who experimented with lenses and who first put them together into a crude microscope and saw those strange animals that swam about in a drop of water. We know about Copernicus. Who knows about Leeuwenhoek? And yet there was a discoverer of an infinitesimal world as marvelous as the infinite world of the astronomers, but one world unified, law-abiding before which every intelligent man stands in reverence; and before the infinite intelligence and power that created it I think every thoughtful soul will stand in awe. As a man of religion, I acknowledge tonight to you men of science our unpayable debt for this vastly greater, more awe-inspiring outlook upon the universe that science has given.

In the second place we men of religion owe to the men of science a debt for the instruments of service that have been put into our hand. One thinks, for example, of the dream that all men of high religion have had for centuries that some day we should have a human brotherhood here, that having made the world in the nineteenth century into a neighborhood, we might somehow now make it into a brotherhood. But what has made possible the feasibility of that dream? Well, of course, it is modern science, it is railroads, it is telephones, it is telegraph, it is radio, it is steamships, it is the things that in spite of ourselves are making us live with ourselves and with each other. One thinks about it as illustrated in the history of our own country. When the United States was thirteen original colonies down the Atlantic seaboard, Thomas Jefferson said he hoped we would not have anything more to do with England than we had to do with China, which shows how little he knew what the world was coming to. We began saying away back there, "No entangling alliances."

Then after the Revolutionary War we stepped back to the Mississippi and we took Texas from Mexico with the aid of the Texans, and we got California by purchase, and Oregon by discovery, until we stretched 3,000 miles from sea to sea, and still we said "No entangling alliances."

Then in 1868 we purchased Alaska from Russia until with our finger tips we touched Asia, and still we said "No entangling alliances."

In 1898 we got the Philippines and became a first-class Asiatic power, took Porto Rico and laid a fatherly hand on Cuba and got Panama and became a first-class South American power, until the sun never sets on our possessions either; and still we said "No entangling alliances."

All the while we were saying this, something else was going on, steamships and railroads and telegraph and telephone and radio, doing the whole world up into one bundle, so that what happens anywhere happens everywhere, and the roofs of Buddhist pagodas shine with the corrugated tin of Standard Oil cans; and still we say "No entangling alliances." You see the theory doesn't fit the facts, because in spite of ourselves we have to get into this international problem science is making for us. Some call it idealism. They say it is visionary. Rather, it is science that is putting into our hands these instruments that force the whole world to live together, so that when a Christian, for example, dreams his dream of something like a peaceful world brotherhood, he owes an unpayable debt to science for the possibilities that he would better acknowledge.

Of course, one illustration of this, perhaps the most beautiful illustration of it, lies in the realm where you gentlemen work. There are a few places in history where a man wishes he might have been—that day, for example, when Koch succeeded first in isolating the tuberculosis germ; or perhaps I would choose the day when Pasteur stood mystified before those cows in southern France and for the first time wondered whether there could be such a thing as immunity, and then the day when with his various ages of cultured bacteria he stood with some dead chickens on one side and some live chickens on the other and realized that he had achieved immunity. Think what an instrument for service has been put into the hands of those who love humanity! I say it with a reverence, the one whom I call Master cured a few people whom you could count upon your finger tips through that amazing mastery of mind over matter. But with such instruments of service as modern science has put into our hands is brought to pass the very thing he said, "Greater things than these shall ye do."

This last year I was in Corinth in Greece. Three thousand children had been brought over after the debacle in Asia Minor, orphans, and put into some Greek army barracks there in old Corinth. No sooner had they gotten there than 1,200 cases of malaria broke out. They sent for a trained nurse from Johns Hopkins who was up in Athens and she came down. Will you in imagination think of all the trouble there must have been with malaria in Corinth for numberless centuries past? Will you imagine all the sacrifices that had been offered on pagan altars there somehow to escape that mysterious and unknown scourge? Will you imagine all the prayers in Christian churches and all the supplications before Allah in the mosques of Islam there that had been offered somehow to escape that dreadful scourge? And now a nurse from Johns Hopkins comes down there, cleans up the whole countryside, makes herself a torture and a pest to all the government authorities until they assist her, will not let a single pool go unwatched, until nobody in Corinth need ever have malaria again. And still some talk about a quarrel between science and religion; but see, see the instrument that a real religion, that loves human service, has handed to it by science. Let me at least take this opportunity for myself and thousands of my brethren to acknowledge our unpayable obligation.

Once more let me express our obligation for some of the intellectual ideals that science has supplied us with. For religion deals with things that are rather nebulous at times, somewhat vague, large philosophies of life where it is easy to content ourselves with approximations, and at times to do wishful thinking and slip over into credulity, and from credulity slide down into superstition; so that for my part I acknowledge an unqualified debt of gratitude for two ideals of science—honesty and humility.

Honesty, like that of Darwin, who said when he was searching for his hypothesis that he particularly noted down every fact that was against his hypothesis, because he noticed that it was so easy to forget the things that were against the things you wanted to prove, that kind of dealing with facts science stands for. You know our modern religion is unpayable indebted for that, it is getting into our blood. We are increasingly impatient with credulity and desirous to deal with things that are so.

Then humility,—I know oftentimes scientific men are conceived of as proud. I know many great scientists, I have yet to meet a really proud one. They are the humblest lot of men I know in one particular. Huxley said: "Sit down before fact as a little child. Give up every preconception and prejudice, and be prepared to follow wherever fact may lead, or you will learn nothing."

Those twin ideals, honesty and humility, in dealing with fact, are the basis of science, and to that contribution religion owes an unpayable indebtedness.

You will let me, then, having expressed on behalf of the profession which I represent our indebtedness to the scientific work which your profession represents, say also that after all science is not enough, for here is the problem, isn't it, that all of us have to deal with today—that science puts into our hands tremendous powers that we may either use or misuse. Scheele in 1774, so my friend at Harvard tells me, discovered chlorin, an unspeakable public benediction which today cleanses annually 5,000,000,000 gallons of the nation's water for drinking purposes, but alas, chlorin which was the basis of the deadliest gas used in the last war.

There you have it. Science gives us chlorin What shall we do with it? We may make it a saving thing and cleanse the drinking water of a nation, or we may make it a poison gas and slay the best youth of the new generation.

So that when science has done its work, still there is work for men of my profession, with the spirits of men, with the motives that drive them, with the faiths that dominate them, with the outlooks on life that make or mar them; and I am glad to pay my tribute tonight to Dr. Wendell C. Phillips, because he has combined in his life these two attitudes of which I have been speaking—a great man of science, and a great man of religion, too.

A ONE YEAR'S REPORT ON THE SUCCESSFUL EMPLOYMENT OF MOTION PICTURES IN MEDICAL EDUCATION

By J. F. MONTAGUE, M.D., F.A.C.S., NEW YORK, N. Y.

From the Rectal Clinic, University & Bellevue Hospital Medical College.

THERE is much discussion abroad at the present time as to the possible value of the motion pictures as a medium of instruction in medical colleges. It may, therefore, be of value to those contemplating the employment of this method to hear the report of one who has successfully used this method for over a year.

In 1925 we completed the construction of a series of motion pictures dealing with rectal diseases and their treatment. This series was built up from motion pictures of actual cases which had come under our observation over a period of eleven years at Bellevue Hospital and the University and Bellevue Hospital Medical College. While the presentation of an eleven year clinic such as this collection of pictures represents would undoubtedly have been of interest to anyone studying rectal diseases, yet the fact remained that, although the material was all there, it needed editorial arrangement in precisely the same manner that the strips of film which represent the individual scenes of a motion picture story require much cutting and editing before they are finally offered to the public. The obvious step to be taken, therefore, was to group these various motion picture "shots" according to the disease they portrayed, and then to title them with descriptive matter. This was done, and when viewed they presented an interesting spectacle.

It was quite evident, however, that there was something lacking in the structure we were trying to build. Upon analyzing the situation we concluded that, although it was all very well to show a series of diseased conditions such as was mentioned, yet from the standpoint of the student, treatment was the question paramount in his mind. Accordingly, we proceeded to make motion pictures of all the surgical operations which rectal surgeons employ, such as hemorrhoidectomy, fistula operation, etc., as well as the various medical treatments, such as injection treatment of hemorrhoids and the non-surgical treatment of rectal stricture. When this immense amount of material had been accumulated, we naturally thought that our labors would be over and that we could settle down to the practical employment in teaching what had taken so much time and effort to gather. However, although the surgical operations or medical treatments were perfectly and clearly shown and in a manner far superior to what could be possibly viewed by a student observer at a clinic, yet the fact remained that the mind seemed to be looking for some additional help in understanding the exact process of the technique. The answer to this was found in the employment of animated cartoons or diagrams. By preceding an actual showing of the surgical operations with an animated diagram of what was to take place, the ideal appears to have been found.

At the present time our entire series of films aggregate about 55,000 feet constituting a thoroughly organized and correlated fund of knowledge on the subject of rectal diseases which is made easily and instantly available to any medical student. Instead of being under the necessity, as heretofore, of lumbering from one clinic to another seeing the cases that *happen* to come in, and in the meantime obtaining a very haphazard impression of widely varying clinical conditions, the student may now make an intensive and thorough study of each subject in the field of rectal diseases. Not only may he see the actual conditions, but he may also see the same case operated upon, dressed from day to day, and finally see the completely cured case, all in the brief time required to show the motion pictures. Could there be any more complete follow-up system?

We have also succeeded in taking motion pictures of the interior of certain portions of the intestinal tract. While X-ray pictures are only shadows cast by opaque material in the intestine, the new motion pictures actually show the inside of the intestine. This has never been done heretofore, and furnishes the medical profession with a new means of observing the intestines, both in health and disease.

The dissection of an entire human body—a tedious process taking months of careful work—is shown in faithful detail in our motion pictures in a little over an hour. Moreover, without the necessity of again going through the dissection the process may be repeatedly shown until the student is entirely familiar with its detail. In this way, from the seat of a comfortable chair in the lecture hall he may learn what otherwise would require months of messy work on a malodorous cadaver. Thus, through the agency of motion pictures, the anatomy and physiology of the body in health, the characteristic appearance of cases of disease, and each step in the plan of its treatment may be presented.

If a student is slow to grasp, the pictures may be run twice or more times. If an interesting phase is observed, the picture may be stopped and started again as soon as it has been sufficiently observed. Finally, in this series of pictures there are to be observed all the interesting intestinal and rectal cases that have come through Bellevue Hospital in the last nine years. Where else can a nine year clinic such as this be viewed in a little over an hour? This is all the more remarkable considering the fact that the very patients portrayed have almost all passed from view either by reason of cure, removal, or demise.

Aside from the immense economy of time and effort, the particular features by reason of which the employment of motion picture film is most especially adapted to the teaching of medical subjects, are its ready accessibility and its permanency of form. To this we may add the fact that it is a practically indestructible record which may be used time and time again without any more exertion than the printing of new positives from the original negatives. Availability is a very important feature in the teaching of medical subjects. For instance, a physician recently dropped into our clinic at the Bellevue Medical College and said that he was particularly interested in a certain rare form of rectal disease and wanted to see whatever could be seen on that subject. As it happened, the condition was of such rarity that there were no cases in the hospital at that particular time and for that matter had not been for over a year. Yet by the simple process of the motion picture film, this man was able to view over twenty such cases in a short period of time. When I tell you that these constituted all the cases that had come into a hospital for some eleven years past, you will readily realize the important rôle that the motion picture film plays or can play in keeping striking clinical cases indefinitely on ice.

The clearness and simplicity of the motion picture portrayal of a clinical condition stands in direct contrast to the totally inadequate view that a medical student can obtain from a seat in the amphitheatre. Those who have been in the amphitheatre of an operating room will recall how the students and physicians are seated row upon row in a semicircular manner on benches whose distance range from twenty to fifty feet from the field under observation. When you consider that such field is at best six to eight inches square and that even this is encroached upon by operating hands and instruments, you can well imagine that the actual view possible is very small indeed. Contrast this with the fact that an operative wound photographed and thrown upon the screen shows an area six by nine feet instantly visible to everybody and so complete in its clearness and abundant in its detail that accurate observation cannot be avoided.

We have noted so far the great economy in time and effort obtainable by putting medical educational facts into motion pictures; and furthermore have dwelt upon the superiority of such a record from the standpoint of ready availability and repeatability; but perhaps the most important virtue in the method lies in that extensive flexibility which permits constant additions, corrections, or subtractions, and which makes it possible to keep the record constantly up to date and complete to the utmost. Moreover, the same flexibility permits the rearrangement of material assembled so that it may be correlated along the lines of a logical presentation of the facts on each and every medical subject.

Experience with our motion pictures in the classroom has abundantly demonstrated their pedagogic value, and points the way to the establishment of similar courses in all the specialties. In the language of the day *"It won't be long now!"*

FETAL AND NEO-NATAL MORTALITY*

By MEYER ROSENSOHN, M.D., NEW YORK, N. Y.

THIS paper is based on a study of the work at the New York Lying-in Hospital for the two years 1924 and 1925, and represents an indoor and an outdoor service, the former about twice as great numerically as the latter. In neither service do the hospital rules permit any operation of any kind except in the presence of a member of the attending staff, unless it be in the face of a grave emergency.

As a preliminary, it may be wise to refer to a few fundamental considerations. First, the term still-birth has been applied to every case where a recognizable embryo or fetus is obtained, irrespective of the period of gestation. Secondly, a still-birth differs from a death only in the absence of respiratory movement; thus, even if the heart beat for an hour or more after delivery, a still-birth has occurred if no attempt at breathing has taken place. On the other hand, should there have been a brief respiratory effort, then a death has taken place one minute or more after birth. Thirdly, the term premature and its application are very hard to limit. Arbitrarily, it has, in this paper, been applied to all cases where the weight is 1500 grams or less, but its actual definition is still being considered by a committee of several of the maternity hospitals.

With these considerations in mind there were for the past two years in the Lying-in Hospital a total of 10,720 confinements, with 10,829 babies. Among these there were 460 still-births and 277 infant deaths as shown in Table I.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

TABLE I

	1924	1925	Total	Per-cent	Rate per 1000
Labors	5,457	5,263	10,720		
Babies	5,508	5,321	10,829		
Still-births	227	233	460	4.2	42.5
Deaths	152	125	277	2.5	25.6

In all of these 737 still-births and deaths there were 346 autopsies.

To consider the still-births first, they fall naturally into three headings: the macerated, the premature and the full term, and are noted in Table II.

TABLE II

	No. of cases	Percentage of total confinements
Macerated	185	1.7
Premature	88	0.8
Full term operative delivery	126	1.1
Full term spontaneous delivery	61	0.5
Total still-births	460	4.2

From this table it is seen that 185 cases were encountered where the fetus was already macerated; stated otherwise, it becomes apparent that of 460 still-births, 40% have been dead in utero for some time. It is not here the object to discuss the time of occurrence of maceration in reference to the onset or progress of labor.

Among these macerated fetuses the question of the presence or absence of lues is important and is shown in Table III; here, as well as in the succeeding table, for comparison, the two years 1924 and 1925 have been separately quoted.

TABLE III

	1924	1925	Total	%
Positive Wassermann in Mother	15	14	29	15
Negative Wassermann in Mother	60	69	129	70
No Wassermann taken	19	8	27	15
Total	94	91	185	

It is astonishing and certainly will bear a moment's consideration to see how exactly the two years compare in incidence, and in reactions. The greater frequency in the 1925 figures is at the expense of cases wherein the preceding year no Wassermann was taken. The total of 91 for 1925 as compared with the total of 94 for 1924, is undoubtedly due to the fact that in the past year we had 194 less cases. It is thus to be noted that in 129 of the 185 cases or in 70% of the macerated fetuses there was neither clinical nor laboratory evidence of lues in the mother nor was there any evidence in the still-born fetus at the post-mortem examination.

If the figures are studied with a view to etiological factors, definite causes were found in 46 cases, excluding, of course, the 29 positive luetics. This is shown in Table IV.

TABLE IV

	1924	1925	Total
Toxaemia and eclampsia	13	7	20
Previous still-births	5		5
Diabetes	4		4
Trauma	2	1	3
Tight cord	3		3
Placenta praevia	2	1	3
Monster	2		2
Pyelitis	1		1
Premature separ, placenta	1	1	2
Fibroid uterus	1		1
General peritonitis in mother	1		1
Dry labor		1	1
No cause	44	66	110

As was stated above, Table II, the prematures among the still-births numbered 88, and included all embryos and fetuses under 1,500 grams. Most of these were in cases which could be called abortions of three to five months, but there were five cases of anencephaly and one of spina bifida with hydrocephalus. These are referred to in one of the succeeding tables dealing with congenital defects.

In considering the neo-natal deaths all cases were included where the child breathed and where death occurred either immediately or at any time during the hospital stay. Under ordinary circumstances, because of the requirements of the service patients are discharged on the tenth day after delivery but where any untoward conditions arise, the hospital stay is prolonged for weeks and even for months. For a better understanding these neo-natal deaths are subdivided as to pre-maturity or full term and are shown in the following table:

TABLE V

Labors	Total	10,720	%
Premature	"	103	0.9
Full term	"	174	1.5
Operative delivery		56	0.5
Spontaneous "		118	1.0
	Total	277	2.5

Disregarding the prematures in this table and in Table II, we have for consideration the full term baby and the method of delivery as shown in Table VI.

As might be expected there is a greater incidence of still-births among the operative cases and a greater number of deaths among the spontaneous deliveries. These figures show a total of 361 full term still-births and neo-natal deaths among 10,720 confinements, representing 3.4%.

In these full term babies, a study of the causes is of interest and is shown in the following table in which the effort has been made to distinguish between the operative and spontaneous deliveries.

TABLE VI

The Full Term Baby

	Still-birth	Death	Total
Operative delivery ...	126	56	182
Spontaneous delivery .	61	118	179
Total	187	174	361

TABLE VII

	Operative 182	Spontaneous 179
Atalectasis & Asphyxia ..	66	55
Cerebral hemorrhage	58	35
Fracture or separation of vertebrae	11	4
Craniotomy	16	
Anomalies	8	21
Inanition		7
Pneumonia	1	12
Hemorrhagic disease	2	10
Lues	1	5
Other causes	21	30

The occurrence of cerebral hemorrhage in almost one-third of the operative and in one-fifth of the spontaneous deliveries is noteworthy; in addition to this is the incidence of congenital malformations; these were practically all incompatible with life; eight of them were among the operative, and twenty-one among the spontaneous deliveries.

Referring further to these congenital conditions, in most of which autopsies were performed, Table VIII is of interest:

A further reference to Table VII shows that in sixteen of the full term cases craniotomy was done; as regards this operation Table IX is noteworthy.

In the instances of the four premature babies there existed in the mothers, in two cases placenta praevia, in one pyonephrosis and in one toxaemia. Among the full term cases, in one congenital lues was present with gummata of the liver and lungs; the operation was performed seven times in primiparae and seven times in multiparae; there was a big baby in eight cases and an abnormal pelvis in five. They represent cases where an error of judgment led to the necessity for the operation.

Again, elaborating Table VII with reference to the operative deliveries, Table X and XI give the details in the Cesarean and the high forceps cases.

TABLE VIII

	Death		Still-birth			To-tal
	Full Term	Pre-mature	Mac-erate	Full Term	Pre-mature	
Anencephaly	1		1	5	5	12
Monstrosity .	1			1		2
Congenital heart	5					5
Umbilical hernia ...	3					3
Hydrocephalus			1			1
Hydrocephalus & spina bifida	2	1			1	4
Eventration ..	1					1
Stricture oesophagus	1					1
Absence intestine ...	3					3
Diaphragmatic hernia	1					1
Congenital adhesions & perforation caecum	1					1
Fetal anasarca	1				1	2
Cleft palate, hare lip & eye defect .	1					1
Congenital, absence bile duct ...	1					1
Cleft palate, atrophy thymus	1					1
Total	23	1	2	6	7	39

TABLE IX

Craniotomy Cases

	Full term	Premature	Macerated
Craniotomy ..	8	2	
Perforation of after coming head	6	2	2

TABLE X

Cesarean Cases

	Total	Pyelitis	Cardiac	Placenta praevia	Accid. Hemorr.	Rupt'd Uterus	Tox. Eclam.	Contr. Pelvis
Still-births								
Full term..	11	..	..	..	2	3	2	4
Premature.	6	..	..	1	2	..	1	2
Macerated.	2	..	..	..	..	..	1	1
Deaths								
Full term..	6	..	..	..	1	..	1	4
Premature.	5	1	1	1	..	..	2	..

As an explanation of this table it should be said that the macerated baby in one case was one of twins in which the second baby was alive. The other was a case of accidental hemorrhage in a toxaemic mother. Among the cases of contracted pelvis, broncho-pneumonia and erysipelas caused the death on the twelfth day of one baby; in another baby perforation of the caecum on the second day caused death.

In one of the prematures, the operation was a post-mortem Cesarean, in a case of salvarsan toxaemia; while, in another an anencephalic monster was obtained.

TABLE XI

High Forceps Cases

	Total	Atalect. asphyxia	Cerebral Hemorr.	Fract. skull
Still-births				
Full term	9	2	6	1
Premature				
Macerated	2			
Deaths				
Full term	4	1	3	
Premature				

The high foreceps operation was done in five cases for fetal distress; in five cases for abnormal pelvis; and once each where a prolapsed cord, an occiput posterior position, and a tonic uterus were present. The incident of cerebral hemorrhage in this type of operation is what might be expected of such a difficult procedure.

A table worthy of study is that referred to below dealing with the breech.

TABLE XII

The Breech Deliveries

		Incidence 1 in	%
Total labors ...	10,720		
T'tl. no. breeches	286	38	2.6

	Still births	Deaths	Total	%
Full term	26	18	44	15.
Premature	10	12	22	7.7
Macerated	28		28	9.8
Total	64	30	94	

It is seen from these figures that among 286 breech cases, there were 94 deaths and still-births. About one-third of these had been dead in utero for some time and were macerated on delivery; about one-fourth weighed less than 1,500 grams and can properly be considered non-viable. The remaining 44 cases represented the mortality for the full term breech. The causes of death in these cases is noted in Table XIII.

In the effort to ascertain the mortality for the breech, we are justified in excluding the six congenital anomalies, one case of asphyxia, brought in dead (not a still birth), the case of pneumonia at fifteen days and the case of malnutrition which had been discharged and returned to the hospital after three weeks. This leaves thirty-five full term babies among breech deliveries, a mortality of 12%.

TABLE XIII

Anencephaly	3	
Hydrocephalus and spinabifida	1	
Separation or fracture vertebrae..	5	
Asphyxia	17	and 1 brought in dead.
Cerebral hemorrhage	12	
Hemorrhagic disease	1	
Other congenital defects	2	
Pneumonia	1	at 15 days.
Malnutrition	1	disch. and returned after 3 weeks.

Finally, the figures dealing with our cases where the operation of internal podalic version was resorted to is given in Table XIV and Table XV. The operation was performed 307 times; the indications are outlined for the full term fetus only.

TABLE XIV

Internal Podalic Version

	Deaths		Still-births		
	Full Term	Premature	Full Term	Premature	Macerated
Cerebral hemorrhage...	6	..	14	..	..
Atalectasis and asphyxia	5	..	27	..	..
Fracture or dislocation vertebrae	2	..	5	..	..
Craniotomy	..	..	6	..	..
Total	13	8	52	11	11

TABLE XV

Indications for Internal Podalic Version

	Full term	Death	Still-birth
Placenta praevia	..	1	5
Toxaemia	..	..	2
Twin and triplet...........	..	1	1
Monstrosity	..	1	1
Prolapse cord	..	..	8
Accidental hemorrhage.....	..	1	1
Abnormal pelvis	..	..	14
Inertia, big baby...........	..	5	13
Malpresentation	..	4	7

Taking into consideration the figures indicated in the previous records and noting in the succeeding table the corresponding figures, we have a statement of the full term obstetric mortality with the deductible cases excluded.

In this connection to state differently the figures noted in the preceding tabulations, the following table gains added interest and indicates the mortality for the more common conditions and procedures met with in obstetrics.

TABLE XVI

Total full term		
Still-birth and neo-natal deaths		361
Exclude breech cases Table XIII	3	
Exclude Cesarean cases Table X	4	
3 ruptured uterus		
1 erysipelas		
Exclude congenital defects Table VIII	29	
Exclude lues Table VII	6	
Exclude hemorrhagic disease Table VII	12	
Exclude pneumonia Table VII	13	
Exclude inanition Table VII	7	
Total		74
This leaves a total full term still-birth record of		287
or 2.6%.		

TABLE XVII

	Baby Full term Death	Baby Full term Still-birth	Premature Death	Premature Still-birth	Total No. Cases	Total No. Full term babies	Incid. 1 in	Mort. %
Placenta praevia	2	8	8	6	46	10	233	31
Premature separation placenta	3	4	2	2	32	7	335	25
Prolapse cord	2	10	0	2	67	12	160	18
Cesarean	6	11	5	6	386	17	28	4.5
High forceps	4	9	..	..	88	13	122	15
Craniotomy	..	14	..	4	18	14	595	..
Internal podalic version	13	52	8	11	307	65	35	22

The figures which have been quoted and the tables which have been outlined indicate a still-birth rate of 4.2% or 42.5 per 1,000, and a neo-natal death rate of 2.5% or 25.6 per 1,000. For the City of New York in 1924, in 136,884 births, there were 4.7% still-births and 3.2% neo-natal deaths and for 1925 in 134,924 births, there were 4.5% still-births and 3.1% neo-natal deaths. A study of these figures and a comparison with published records referred to in another article leaves one with a sense of discouragement. The figures are too high. It is true that where the mother comes to us with a fetus in utero already dead for some time there is no discredit to be assumed from the still-birth.

In the light of our present knowledge it is not possible to eliminate the congenital defects. Yet, a great deal can be done toward watching and educating the prospective mother so that her baby will not be born or die prematurely; toward instructing her as to proper care and hygiene of pregnancy in order that she should not develop eclampsia or intense toxaemia. It is here that preventive medicine and prenatal care can conserve the life of the baby and in a measure eliminate the macerated fetus; it is here that we can reduce appreciably the mortality of childbirth. It is only by such measures that there is any hope of cutting down the high figures and this should be the aim of the attending physician. The greatest judgment should be exercised to avoid the necessity for a craniotomy; one should be influenced oftener to interference, and this should be instituted earlier and by the abdominal route where non-engagement or lack of progress indicates some abnormality.

THE SYMPTOMS AND TREATMENT OF UNCOMPLICATED DISPLACEMENTS OF THE UTERUS*

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INTRODUCTION

IN prefacing my remarks, I wish to say that this is the second paper I have recently prepared and presented on the conservative treatment of uncomplicated displacements of the uterus.

The first paper was read at a meeting of the Brooklyn Gynecological Society on Feb. 5, 1926.

The text of this contribution is largely a reiteration combined with certain additions of statements made in my previous paper.

My reason for once more contributing a paper on the subject is based on the conviction, now more firmly founded than ever, that most patients with simple displacements seem to survive comfortably without operation or any other form of radical treatment.

In considering in detail the topic embodied in the title of this paper, I have deviated somewhat from the path customarily followed and have included not only the treatment of simple uncomplicated displacements of the uterus, but certain other phases of these conditions as well. This plan unfortunately prolongs my prefactory remarks, but it is justified on the ground that they embrace certain features of the problem which I believe are more important than the treatment of a displacement itself.

It is obvious to all that within the past ten years all departments of scientific endeavor have made remarkable progress and it is equally obvious to all that the science of medicine has kept quite abreast of scientific progress in general.

Specialization has played a definite influential role in this period of evolution, but specialization, while prominently displaying an embellished side of beneficence, at first, unfortunately, exposed a drab side of passionate radicalism. This vicious feature of specialization, thanks to a sound philosophy, has gradualy been settling toward a rational conservatism.

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* Read at a meeting of the Buffalo Academy of Medicine, May 20, 1926.

The specialty devoted to the diseases peculiar to women, has contributed, on the whole, a gratifying quota and while there is still much to be desired from the conservatism aspect, gynecology no longer can be, as formerly, regarded as ultra radical.

The conservative wave, starting as a faint, but promising ripple, about twenty-five years ago, has gradually expanded into a billow of some magnitude and the crest of the wave is not yet in sight.

It is destined to broaden and ultimately will embrace certain pelvic conditions which are still looked upon as surgical.

It would be a sad commentary to accuse our eminent predecessors of lack of knowledge with respect to the fundamental importance of conservative work in dealing with organs first of vital systemic value and second of transcendent importance in propagating the human family. Yet the former custom of indiscriminate and ofttimes sacrificial surgery is wholly beyond the comprehension of men active in gynecology today. I am sure all agree that in no department of medicine is conservative effort more essential than in gynecology, a specialty dealing with organ fundamentally concerned in initiating and maintaining the phenomena involved in the reproduction of life.

Within the past decade certain diseases of the generative organs, heretofore regarded as wholly surgical, have fallen in the category of medical or at least semi medical conditions. In this list may be included, for example, the acute pelvic infections, infected abortions, simple uterine displacements, uterine myomas and uterine cancer, especially cancer involving the cervix. Formerly, to all the diseases enumerated, surgical therapy was almost routinely applied.

During the past ten years, progress along the lines of conservation has been almost beyond belief and it seems quite safe to say that operatively gynecology has decreased twenty-five per cent or more.

While I realize it may not be prudent to deal in prophecy, I believe the next ten years will see the conservative pendulum swing still farther, so much so that gynecology may not be the alluring surgical specialty it has been in the past.

Indeed, it is possible that only a few pelvic disorders will be looked upon as truly surgical, such, for instance, as pathologic uterine displacements, partial or complete uterine prolapse, ovarian neoplasms, gross parturitional damage, frank pus collections and large uterine tumors.

It is not beyond hope that even certain of the conditions named, especially uterine growths, will require surgery, since by early recognition and prompt irradiation they will be destroyed before attaining surgical proportions. Gross obstetric lesions will I believe, largely be prevented by the adoption and practice of ante natal care the strategy of obstetrics, as well as discriminating and more skilful obstetric tactics—intranatal work—a consummation devoutly to be wished.

It is not my purpose to portray in golden hues, a picture of the futurist type, but I am persuaded that the final picture will be more richly tinted than even it is today. I do not wish to imply that we shall ever reach the blissful millennium, but I do wish to imply that unless we progress and unless our methods change for the better, as they have in the past, and as they inevitably must in the future, we will fall far short of fulfilling our destiny.

Like all specialties, gynecology is not guiltless of sins of omission, and, especially, sins of commission. As a specialty, it has largely traversed its dark pathway of ruthless surgery and, though there are still murky bogs calling for attention, its gloomy chapter of ultra radicalism has been forever sealed.

Among the pelvic conditions which have presented a comely figure to the practicing gynecologist, a group which developed an early and abiding infatuation and a group to which assiduous court has long been paid was uterine displacements. Indeed, of the manifold disorders arising in the female pelvis, none have presented a more alluring physiognomy than malpositions of the womb.

Since the discussion of the title of my paper is governed by the qualifying term: "Uncomplicated" it seems proper that my interpretation of the phrase be explained.

There should be no serious difficulty, if difficulty at all, in defining and recognizing either a simple or a complicated uterine displacement.

Each type has characteristic features of distinction. I think most men would regard an ante or retroposed uterus of relatively normal size, freely movable and occurring in young single women or young parous married women as one of the uncomplicated variety.

I am equally sure that most observers would also regard a uterus of normal size, one not constantly anterior or posterior, arising in the type of patients to whom reference has just been made, as truly uncomplicated.

As regards the complicated or pathologic retro displacement, for instance, there are no barriers of obscurity offered to its recognition. Its features, too, are plain.

It is rarely found in young single women or young married women who have not borne children. The organ generally is in constant retroposition and in nearly all instances, owing to hyperplastic alteration of its walls, it frankly enlarged. The increased weight of the structure combined with the intra-abdominal pressure may imprison it in the hollow of the sacrum or it may be thus fixed as a result of peri uterine infection. The condition usually is a sequel of parturition, so the displacement itself in most cases is associated with parturitional injury. A complicated displacement is one associated with **definite pathologic alteration** in the uterus itself, in the circumjacent structures or in both.

There is still another form of posterior displacement deserving mention. I refer to those cases so commonly found in the highly neurotic, operatively over fed, sanataria domesticated women or in other words, the physically incompetent woman.

The number of this variety operated upon is beyond computation. Have many, if any, ever been benefited? It is obvious that displaced uteri arising in patients of this so-called neurasthenic group are in no sense pathologic in themselves, but rather a manifestation of the general passive or subnormal condition of the patient herself.

Symptoms.—Probably no conditions arising in the human body have been so falsely accused of creating symptoms, both systemic and local, as innocent—not pathologic—uterine displacements. For no other disturbances have such an array of therapeutic methods, both medical and surgical, been designed with almost equal uniform failure in affording symptomatic relief.

Normally, the uterine body is a freely movable organ and so long as it is normal in size and freely movable, may it not be from a physiologic, as well as from an anatomic standpoint, as normal posteriorly as anteriorly?

The teaching that the uterus is maintained in position by a combination of the pelvic ligaments, it seems to me, is not physically nor anatomically true. Except during pregnancy, the pelvic ligaments do not act as stays or supports, as we have been so long taught. Personally, I have never observed, save during pregnancy, the round and associated ligaments, especially the round ligaments, to act other than in a simple passive capacity. Fothergill states: "Though all the ligamentous structures attached to the uterus, except the cervico-pelvic-muscle bands, be severed, the organ will remain in the so-called normal position."

The round ligaments usually are observed as two cylindric or ribbon-like cords passively traversing the sides of the pelvis from the internal abdominal rings to the uterine cornuae. Rarely are they seen in a state to imply that they in any way act as a sustaining force of the uterus.

It is commonly assumed that a great variety of symptoms may be caused by simple displacements, but it is clear that the mere association of symptoms cannot be explained either on anatomic or pathologic grounds, for simple displacements in themselves are not pathologic. Unless the displacement be frankly complicated it cannot excite symptoms; phenomena, we are taught, always indicative of deranged function or altered structure. I am persuaded that most observing men today are convinced that uncomplicated displacements are incapable of provoking symptoms. If one could accept the hypothesis that a simple displacement of the uterus inhibits the supreme function of the organ, namely, child-bearing, then one might assume that our Creator adopted this as one of the chief methods of exterminating the human race.

Except in very rare instances, an uncomplicated displacement can not possibly interfere with conception or any other function. If this were the common source of female sterility, the condition would be infinitely more frequent than it is, since it may not be far of the mark to say that twenty-five per cent or more, women of the child-bearing age could be included in this class.

Personally, I am familiar with no data which prove that simple displacements bear an etiologic relationship to sterility. In all our literature reference is made to this subject, but there are no data on which one can base positive conclusions. Sterility is often cited as a sequel of displacements, but rarely is the story fully told. There is a vast difference between a one year, two-year, three- and five-year sterility. Simple displacements, I am convinced, play but a minor role in the barrenness of women.

While sterility is usually set forth as one of the symptoms of malposed uteri in one paragraph, the paradox of the possibility of abortion taking place is mentioned in the next.

That this unfortunate termination of pregnancy may take place in uteri imprisoned underneath the sacral promontory no one will deny, but pelvic incarceration of a gravid uterus is an exceedingly infrequent occurrence. In an experience extending over a period of several years, I have not observed this combination of events.

With regard to the teaching, more or less prevalent, that a simple retrodisplacement may jeopardize the fate of the embryo if pregnancy should occur, by expelling it prematurely, is, I am convinced, a species of gynecologic pedagogy, not wholly true. Occasionally abortion may occur, just as it does occur occasionally under entirely normal circumstances, but that it is a common cause of abortion, I regard as exceedingly doubtful.

Impaction with abortion as a sequel is possible, but how often has it been observed? The "danger" to a pregnancy complicating a simple retrodisplacement is over emphasized, if not in some instances made a bugaboo. In this connection, I hesitate to use the word "coercion," but I do know the term in the form of a method is sometimes employed in impressing a patient with the "seriousness" of the trouble and I regret to say it also occasionally is used in equally impressing a patient with the "necessity" of surgical interference.

The magnitude of the symptom complex, so frequently ascribed to displacements of the uterus, to me, seems incredulous and can not be explained on rational grounds.

Indeed, nearly every conceivable symptom, as nervousness, functional and even organic, sterility, leukorrhea, disturbed menstruation, dyspareunia, irritation of the bladder and bowel and, of course, the Nemesis of all women—backache—is often attributed to simple uterine displacements.

Backache, especially, is the most popular selection, but this symptom, it has been said, may be caused by anything from the common drama of domestic life—"the family quarrel"—to uterine carcinoma.

Chipman quotes LaRochefaucold, who said: "Pain is the greatest liar in the world," and Chipman goes farther, asserting, that of the painful liars extant, "backache is the greatest Ananias or—Sapphira—of all."

One may still find a few men incredibly teaching and some patients credulously believing that bachache may be caused by "the uterus attaching itself to the spine."

Could any teaching be more fallacious?

But La Fontaine enunciated the aphorism: "We believe easily what we fear or what we desire."

The men propounding this thread-bare doctrine ostensibly believe with the ancients that the uterus has the unusual facility of sailing about like a rudderless ship, ultimately anchoring itself to some favored section of the body. To these gentlemen, globus hystericus is still a regal entity.

I do not know whether you encounter this special guild of chicanery in this section of our country, but I do know it prevails in the vicinity of the City of Brotherly Love.

Indeed, this malicious teaching, I am confident, is not limited to the small section of the country to which I have referred, but it is, I believe, more or less prevalent in most of the area covered by the path of the sun from its awakening in the Atlantic to its final repose in the Pacific.

The teaching is utterly false and the party to benefit thereby is obviously not the patient, but the individual who unscrupulously lends himself to such an iniquitous system of medical banditry —a system which:

> "May have Heaven in its looks,
> But Hell in its name."

It is taught, too, by men whom I am confident know better, but taught nevertheless, words—words:

> "In each of which the teacher shakes a lance,
> Though brandished in the eyes of ignorance."

I am fully conscious of the feeling respecting the current of thought encircling the topic of uterine displacements. I realize, as I am sure you all do, that there is still a wide diversity of opinion concerning all features of the subject.

Unanimity of opinion has not crystalized regarding the symptomatology and treatment of displacements and perhaps it never will. But unanimity of opinion rarely applies to anything and it would be obviously unnatural to expect a unanimous judgment with regard to this phase of gynecology.

In this country two interesting papers recently have appeared, one by Dr. Arthur Dean Bevan —written editorially—if not wholly condemning, advocating at least a reversal of our attitude with respect to both the symptoms and treatment of backward displacements. The other paper, analyzing all features of the trouble and advocating a more compromising attitude, indicates its author, Dr. George Gray Ward, Jr., believes that certain displacements are influential in exciting symptoms and that in these surgery is not only justifiable, but successful.

In England, too, at a recent meeting of the British Medical Association at Bath, a lengthy paper was presented, depicting and ascribing a long chain of symptoms as due to simple backward displacement. In this contribution surgical therapy was strongly advocated, but in the lengthy discussion which followed the contentions of the contributor were not supported. Of the various gentlemen who took part in the discussion, ten in all, a decidedly mellow middle course was advised. In therapy, surgery was given second place.

Bevan in his paper, to which I have already referred, expresses his convictions regarding displacement in the following language:

"Thirty years or more ago, as a young surgeon, I was very skeptical about the local and general symptoms ascribed to retroposition of the uterus. I could not understand how a movable retroposed uterus could excite symptoms any more than a mobile sigmoid which might fall backward or forward or right or left.

"I soon found that patients upon whom I operated and brought the uterus forward in the supposed normal position, were only not benefitted, but many were made worse by the operation, so I, therefore, early discarded it as unnecessary and illogical."

Looking upon this problem, he says, as a piece of scientific research, we are in a position today to state that uncomplicated, movable retroposed uteri produce no symptoms and that operative procedures on such cases must emphatically be condemned.

The retroversion question has also been most clearly set forth by Jaschke. In a study of 1,000 cases of retroposition, compared with 1,000 cases of anteposition, this observer found that the supposed characteristic symptoms of retroposition, menorrhagia, leukorrhea, dysmenorrhea, constipation, bladder irritation, backache and sterility occurred just as often in the anterior as they did in the posterior position.

Jaschke has reached the conclusion, therefore, that an uncomplicated retroposed, movable uterus causes no characteristic symptoms of any kind and no characteristic distress.

Many other writers of wide repute have contributed to this phase of the matter and I shall at this time present their views.

Leda J. Stacy says on the whole there seems to be little difference in the character of the symptoms in anteposition and retroposition.

Palmer Findley states the popular idea, once held, "that uncomplicated retrodisplacements of the uterus result in congestion and excite local symptoms, as leukorrhea, dysmenorrhea, and menorrhagia, is not justified in fact."

J. Wesley Bovee says, "I am convinced that uncomplicated uterine retroversion has no symptoms."

J. M. Baldy, as early as 1915, said, "Nine-tenths of the operations performed on women for retrodisplacement are uncalled for and that the number of retrodisplacement operations is limited only by the number of females in existence."

J. F. McGrath supports the views expressed by the men just mentioned, especially as regards the so-called congenital type of retrodisplacement.

Realizing that my paper is dedicated to an analysis of uncomplicated displacements of the uterus, it may not be regarded as apropos to even mention that insignificant entity, if really an entity at all, ante displacement. It would be a fatuous waste, indeed, of priceless time to even attempt to review the multiplicity of symptoms and the mammoth therapeutic pyramid erected to the glorification of this pigmy of gynecologic deities.

In the not far distant past no gynecologist, "high though his titles, proud his name, boundless his fame as wish could claim," was too great to do obeisance to this mythical goddess.

Personally, I do not believe a simple ante displacement, one regarded as beyond the so-called natural anteflexion, is capable of exciting symptoms.

A pin hole os I have never seen or have I ever observed a cervical canal with a diameter less than the diameter of a red or white blood cell, the channel through which the menstrual fluid makes its exit from the uterine cavity. Menstrual symptoms associated with ante position must, therefore, be looked for in structures other than the uterine body.

The train of symptoms often ascribed to an acutely anteflexed uterus is most frequently associated with the type of organ classified as the infantile variety. This is most commonly observed in individuals who present anything but infantile characteristics. These patients, on the contrary, are, in the main, of the gigantic type. This feature in itself clearly indicates that the source of the trouble is not in the uterus, but in some derangement of the endocrine system. Herein lies the origin not only of the maldeveloped uterus, but the dysfunction, expressed symptomatically in dysmenorrhea, partial or absolute amenorrhea and sterility, as well. The bearded face, masculinity, moderate or mammoth body development combined with an anteposed ill developed uterus, form a symptom and sign complex which speaks with plain intelligence of the fountain head of the trouble.

It is a common observation that the bigger the patient the smaller the uterus and the more profound the functional derangement.

Treatment.—I have devoted considerable time to the general discussion and symptomatology of simple displacements. I adopted this course because I believe the study of these phases of the subject are more important than the treatment of the displacement itself.

In considering the therapy of simple displacements, while it may shelter one from argument, if not criticism, by assuming a compromising middle course, I shall stear clear of compromise, because I believe, except in very rare instances, *simple displacements of the uterus are not worth treating.* As Goldsmith said of Burke: "I select this course not because it is expedient, but because I regard it as right."

The operative treatment of uterine displacements, starting in the large medical centers about thirty years ago was grasped with avidity throughout the country. In the rural communities, however, surgical measures, as one would naturally expect, required time for familiarization and adoption.

In the metropolitan districts after a trial of more than fifteen years, it was found that surgery did not provide symptomatic relief, that in most instances the work was futile and disappointing, if not in many cases even dangerous and harmful.

It was further found, finally, that the long chain of symptoms ascribed to simple displacements could not be substantiated by experience, and now the numerous operations described for the trouble are gradually being abandoned.

Since it required a season of time to popularize surgery with the view of correcting displacements, so it will require some years to educate widely the profession with regard to the futility of the surgical measures so long in vogue.

The physician of broad experience is coming to realize that the operative treatment of simple displacements has not withstood the crucial tests of time, that the method has not been generally helpful or even justified.

A study of events disclose that the round ligament operation—a consuming epidemic procedure a few years ago—is now being employed only sporadically.

The late beloved Watkins, shortly before he died, said: "The round ligament operation seems to have ceased to be a subject of much general interest."

I am sure we are all familiar with the conservative trend in the treatment of simple displacements and this does not indicate that the trouble is less frequent, but that a mature surgical conscience has discovered therapy is rarely necessary.

Indeed, if the conservative plan gradually evolved and adopted during the past few years could be regarded as a criterion of the future, it is obvious that uncomplicated cases will be treated, if treated at all, along ultra conservative lines. It is probable that simple malpositions will be regarded more from a physio-anatomic and not from a pothologic standpoint. Today the round ligament operation in uncomplicated cases, I rarely recommend or perform.

The only type of displacement which one may legitimately place in the category of a surgical displacement is the large hyperplastic uterus, the large chronically inflamed adherent uterus or the pathologic prolapsed uterus. In these considerably more surgery than simply shortening the round ligaments or fixing the uterus forward is called for.

The practice of major surgery for a minor condition is not good surgery and it is prudent to keep in mind that all forms of surgery exact a definite toll of human life.

The round ligament operation is no exception to this rule for it, too, has played its part of Shylock and taken infinitely more than its pound of flesh.

After long study and several years of rather wide experience, I have reached the conclusion that uncomplicated uterine displacements rarely require treatment, either medical or surgical. Since the uncomplicated type is by far the most frequent, extensive use of the round ligament operation will gradually be abandoned.

If one may regard a multiplicity of therapeutic measures as sound evidence that none are wholly satisfactory, then at least some of those designed for simple displacements may be included in that chapter. More than 100 different operative methods have been devised and next to the pernicious operation of dilatation and curettement, I am familiar with none that have had less justification or done less good. Ten years ago the round ligament operation constituted more than ten per cent of the work of the gynecologist. I am persuaded that today it could be reduced to less than two per cent and all that is needed to see the consummation of this belief is a righteous surgical conscience. In simple cases it may be used occasionally as a matter of expediency in the course of other pelvic work, but rarely as a matter of principle or on primary organic grounds.

As regards the therapy of anteflexion, I have very little to say. To me it seems physically impossible to correct an ill developed anteposed uterus by either medical or surgical means.

Personally, I believe a grossly maldeveloped anteflexed uterus will remain maldeveloped and probably anteflexed forever, irrespective of any type of treatment.

So far as therapy is concerned, uteri of this form might legitimately be placed in the category of incurable conditions.

If, however, the ill development is of moderate extent, some good may be accomplished by a restricted dietary regime, combined with the administration of organic drugs. Apart from these measures—and even they afford but slight encouragement to either the patient or the physician—there is little one can do.

Surgery in the form of dilatation and curettement alone or combined with a uterine stem pessary or the various multilating operations on the cervix itself, may occasionally provide some comfort, but surgery, too, generally is disappointing, is not without features inimical to the integrity of the cervical mucosa and indeed not without danger even of a more serious character.

The stand I have taken respecting the symptoms of uncomplicated displacement of the uterus, I realize fully, will not meet with universal approbation. It perhaps, on the contrary, will be greeted by condemnation, but I do believe I have expressed a conviction which is gradually becoming and is destined to become more and more universally recognized.

I may be accused also of taking an ultra pessimistic point of view regarding the surgical therapy of simple displacements, but I feel justified in assuming a discouraging attitude because it is sustained first, by the decreasing frequency with which operations are being performer, second, by the almost universal condemnation of surgical means, and third, by the almost uniform failure in my hands of operative treatment affording symptomatic relief.

Finally, may I say it is my last thought to appear before you gentlemen in the garb of a critic, for I am aware: "Criticism often takes from the tree caterpillars and blossoms together." (Richter.) I know too, that: "Those readiest to criticise are often least able to appreciate." (Joubert).

Two hundred years ago, Alexander Pope in his Essay on Criticism said:

> " 'Tis hard to say, if greater want of skill
> Appear in writing or in judging ill,
> But, of the two, less dangerous is the offence
> To tire our patience, than mislead our sense.
> 'Tis with our judgments as our watches, none
> Go just alike, yet each believes his own."

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THE TYPES OF GOITER ENCOUNTERED IN CHILDREN*

By J. WILLIAM HINTON, M.D., F.A.C.S., NEW YORK, N. Y.

CONTRARY to the statements of some authors there are three types of goiter seen during childhood. First, The Goiter of Adolescence. This is a physiological hypertrophy of the gland with the secretory activity usually diminished. Occasionally the secretion is increased. Second, Adenomatous Goiter. This is a pathological hypertrophy and hyperplasia confined to one portion of the gland. The secretory activity may be normal or increased. Third, Exophthalmic Goiter or Graves Disease. This is a pathological hypertrophy and hyperplasia involving the entire gland. The secretory activity of the gland is always increased.

Adolescent Goiter.—This is the type of goiter most frequently encountered and it constitutes about ninety-five per cent of the goiters in children. It is subdivided into two groups. First. Those with a normal or diminished secretion, which constitutes about ninety-eight per cent of the adolescent type. Second. Those with an increased secretory activity or hyperthyroidism.

The Signs and Symptoms of Adolescent Goiter Without Hyperthyroidism.—The mother or some member of the family will notice a fullness in the neck, or more frequently, the teacher calls attention to the child's neck. On seeking medical advice the child does not have any complaints. The appetite is good and they are usually gaining in weight. The menstrual cycle is late in starting. This condition is usually seen between the ages of ten and fourteen, but more frequently around the age of twelve.

Examination. Eyes are negative for exophthalmos. The neck reveals a soft symmetrical enlargement involving the entire gland. No masses can be palpated. There are no thrills or bruits over the neck. The pulse rate is usually from eighty to ninety per minute. Blood pressure is normal. Physical examination is negative, with the exception of the findings in the neck. The basal metabolic determination will reveal a normal or diminished reading. This condition is an iodine deficiency disease, as has been pointed out by Marine. The hypertrophy is a physiological process which should respond to medication.

Treatment. These cases will respond to iodine or thyroid therapy, but the mother should always be warned that it will take months, and in some instances years, for the enlargement to entirely disappear. Thyroid extract gr. ½, T. I. D., seems to give better results than iodine medication. We always specify Burroughs, Wellcome preparation as it seems to be the most reliable. The dosage can be increased to gr. 2, T. I. D., if necessary. It is important to stop the medicine one week a month to avoid a hyperthyroidism. After the condition is apparently cured the patient should report every three to six months for observation, and a short course of treatment. The prognosis depends on an early diagnosis. The neglected cases respond with much more difficulty and require larger doses of medicine.

Adolescent Goiter With Hyperthyroidism.—This condition is encountered in from one to two per cent of adolescent goiters. The physical findings are not diagnostic of hyperthyroidism, although, the patient may have a slight thrill over the thyroid region, which suggests an over activity. The pulse is usually elevated above one hundred. There are no positive eye signs and there is no definite fibrillary tremor of the fingers. The basal metabolism determination is the only means of making a diagnosis. The rate is usually increased to a plus fifteen to twenty-five. These patients usually have badly diseased tonsils, or an associated enlargement of the thymus, if an X-ray picture is taken of the chest. The treatment resolves itself into the elimination of any focus of infection, plus luminol gr. ¼, T. I. D., with absolute rest. This means the child must be taken out of school, and, if possible, she should be sent to the country. Iodine and thyroid medication, needless to say, are contraindicated. If these cases do not subside within six months to one year, X-ray therapy seems indicated. The prognosis from the X-ray treatment seems more favorable if there is an associated thymus enlargement. Surgery is rarely indicated in this condition.

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* From the goiter clinic of Dr. Charles Gordon Heyd's service at New York Post-Graduate Medical School and Hospital.

Adenomatous Goiter.—This condition is rather rare in children, but it does occur in two or three per cent. of cases. There is nothing significant in the history to differentiate it from adolescent goiter. It is usually associated with the beginning of the mentrual cycle. Examination reveals an asymmetrical appearance in the neck. The enlargement is usually confined to one of the lateral lobes, although, the isthmus may be enlarged. The mass is firmer than the surrounding thyroid tissue, which is not the findings of an adolescent goiter. Adenomatous goiter in children does take on a hyperthyroidism, which is denied by Helmholz[1] Within the last year in this clinic, we have had two cases of hyperthyroidism in children from adenomatous goiter, one a male and one female. The boy was fourteen years of age and had a plus thirty metabolic rate. The girl was twelve years of age and had a plus twenty metabolic rate. *Treatment*: Adenomatous goiter cannot be cured by internal medication, as one is dealing with an encapsulated tumor. There is always the danger of producing a hyperthyroidism in the adenomatous growth, from the indiscriminate use of iodine. In one case cited above, the boy fourteen years of age, presumably, had the hyperthyroidism induced by taking some form of thyroid medication, which he had taken for about four weeks before coming to the clinic. The only permanent cure in this condition is a partial lobectomy. If the parents do not wish to submit the children to an operation, it is best to keep them under observation, without medication.

Exophthalmic Goiter or Graves Disease.—This is the most frequent type of hyperthyroidism encountered in children. The same cardinal signs and symptoms are found as in an adult, namely, tachycardia, tremor, exophthalmos and goiter. Of the secondary signs and symptoms, diarrhea is quite a serious complaint. It is more frequently seen in children than in adults, and it is occasionally mistaken for a primary gastro-enteritis. Loss of weight and a general state of irritability are usually seen. One should bear in mind that children do have Graves' disease and age is not a contraindication. Helmholz in a recent report from the Mayo clinic gave the youngest child as three years of age. White[2] has reported a case of congenital exophthalmic goiter. *Treatment.* Children seem to respond less favorably to conservative treatment than adults. Partial thyroidectomy seems preferable to other types of treatment during childhood. Helmholz states that preliminary ligation was performed in only four of twenty-one patients who were operated on after the introduction of the compound solution of iodine. Dinsmore[3] states the treatment of hyperthyroidism is the same whether the patients are children or adults, excepting that it should be borne in mind always that special care must be exercised in handling these children. They are very susceptible to every form of stimuli and may be very ill after operation. In nearly every instance it is necessary to ligate the superior thyroid artery, first on one side and a few days later on the other side, three months before thyroidectomy is performed. From the above statements it would seem that the individual case has to be taken into consideration, and whether a preliminary ligation is performed before a partial thyroidectomy depends entirely on the reaction to the preliminary treatment.

Conclusions. I. Adolescent goiter is amenable to thyroid medication. 2. One should be careful to make a differential diagnosis between adenomatous goiter and adolescent goiter, as thyroid medication is contraindicated in the former. 3. Graves' disease occurs more frequently in children than has been generally supposed.

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EDITORIAL

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GRADUATE MEDICAL INSTRUCTION OR EDUCATION

The medical teaching of physicians is carried on by means of literature, lectures, and practical clinics. The value of the teaching varies from that of a medical society program which is beyond the comprehension of the members to that of a resident course requiring much concentrated study and practice.

There is much criticism over the application of the term "graduate education" to a series of didactic lectures, such as those usually given before county medical societies, and the proposal is made that they be called "graduate instruction." The theory is that the word "instruction" is applied to the material that is offered by the instructors, while the word education is applied to that which the student assimilates.

The distinction between instruction and education is real and practical. The Medical Society of the State of New York offers courses of graduate instruction. It is hoped that they may result in the graduate education of the members of the County Societies that adopt the courses.

A NOVEL PROGRAM OF A MEDICAL SOCIETY MEETING

How to conduct an effective scientific program of a meeting of a medical society was beautifully demonstrated on January 29 by the Associated Physicians of Long Island when it carried out a varied program of 18 papers in 90 minutes.

To carry out this program required preparation. The speakers were members of the staff of the Methodist Episcopal Hospital, Brooklyn, where the session was held. Each speaker was required to write his paper within a limit of 600 words. The Chairman appointed a timekeeper who started an alarm clock set for five minutes, and it did not go off once, for every speaker completed his remarks ahead of time.

The program carried this announcement:

"The whole story of creation is told in the Bible in 600 words. Anyone who has a real message to give can do it in five minutes. The presiding officer will be asked to use his gavel if any of the speakers on this program exceeds his time."

The effect of the program was most happy. The one hundred or more physicians who were present gained a wealth of new ideas, and every moment of the time was interesting.

What kind of program was carried out by the meeting? Just such a program as is prepared for an average county medical society. Here it is just as it was printed.

"Subacute and Chronic Sinusitis in Children," Kenneth E. Millan.
Frequency of its occurrence and variety of conditions proceeding from it.

"Gangrene of the Uterus Due to Tortion," Henry T. Hagstrom.
Operation. Case report. Natural color photographic lantern slides.

"Blood Transfusion," Seymour G. Clark.
Indications. Contraindications. Discussion of abuse of the method with illustrative reports and fatalities.

"The Relation Between the Preparation and the Morbidity in Obstetrics," Harry W. Mayes.
Statistics showing effect on morbidity of shaving and cleansing of the external genitalia before using the mercurochrome preparation.

"The Use of the Bronchoscope," Einar A. Sunde.
Indications, contraindications and results in abscess of the lung.

"Exhibition of Interesting Cases," Eugene S. Dalton.
From the medical ward.

"Bone Cysts in Children," Harold K. Bell.
Report of two cases. Lantern slides.

"Manikin Demonstration. The delivery of a face," G. Hamilton Davis.
Presentation with the chin posterior.

"Hare Lip and Cleft Palate," Roger Durham.
When and how to operate. Lantern slide demonstration.

"Umbilical Hernia in the New Born," Ralph M. Beach.
Operation. Case report. Lantern slides.

"Phosphatic Cast of the Bladder," Howard T. Langworthy.
Case report. Discussion of the difficulties in the treatment of alkaline urine. Measures that have been tried. Results.

"Appendicitis Complicating Pregnancy, Labor and the Puerperium," Robert A. Wilson.
Tabloid case reports. Frequency and prognosis and, especially, the treatment.

"Electro-cardiograms," Alexis T. Mays.
Lantern slide demonstration illustrating their definite value in diagnosis, prognosis and treatment.

"The Use of Radium at the M. E. Hospital," John C. Graham.
Five years' experience. Indications. Contraindications. Results.

"The Kahn Precipitation Test for Syphilis," Esmonde B. Smith.
Experiences in 800 cases at the M. E. Hospital. Conclusions.

"The Use of Numoquin in Pneumonia," Frank B. Cross.
Analysis of results in 200 cases.

"Caudal Anæsthesia for Rectal Operations," Henry F. Graham.
Difficulties. Unpleasant reactions and how to avoid them. Brief statistical review.

"Early X-ray Diagnosis of Infections of the Lung," William H. Wallace.
Lantern slides.

The quality most needed in a medical program is conciseness, in contrast with the prolixity which is often in evidence. To make and carry out a program such as has been described requires only a single essential—that of accurate preparation. Every county medical society has the talent and the clinical cases readily available as the basis for an hour's program consisting of twelve five-minute papers.

THE CHIROPRACTIC HEARINGS

The Joint Committee of the Senate and Assembly on Chiropractic has completed its investigations after having listened to witnesses during six sessions of about two hours each. Four of the sessions were given to the chiropractors, and the reports of two of those sessions were printed in the January 15 issue of this Journal.

The last two sessions were given to those opposed to the legal recognition of chiropractic, and a report of the proceedings is printed on page 201 of this Journal.

When the opponents have raised objections based on the harm that the chiropractors might do, the question in rebuttal has often been: "Have you seen any harm resulting from the chiropractic treatment?" The insinuation and implication is that chiropractic does not harm the patient even if it does no good. The testimony of Dr. Louis I. Harris, Commissioner of Health of New York City, showed that while numerous complaints against chiropractors came to the Department of Health, the District Attorney was not securing many convictions. The reasons for the inactivity of the Legal Department of the city were not discussed, but they are analogous to those for inactivity against gold brick schemes. So long as alluring promises of rapid wealth or health are made, just so long will a considerable number of people put their property or their bodies into the hands of the schemers, and will not begin prosecution for failure to receive the returns that were expected.

Dr. Rypins introduced a new line of thought when he said that chiropractic was a variety of faith cure. He told of an official inspection of the Palmer School of Chiropractic, the original fountain head of chiropractic, and how the instructors instilled the idea of implicit faith in the system into the minds of the students. The defections of the needle of an electric thermopile called a neurocalometer, applied to the back were interpreted as indications of the flow of nerve force from the spinal cord along the nerves. And when Dr. Rypins showed that the same deflections occurred when the instrument was applied to the hand, the instructors and students would not listen to him, but adhered with blind faith to their own interpretation of the deflections.

The validity of Dr. Rypins' testimony was confirmed by the experience of the representative of this Journal immediately after the close of the hearing when physicians and chiropractors mingled in friendly conversation. The Journal representative asked two gentlemanly chiropractors: "Do you really and truly believe that you can tell what organ is diseased simply by viewing and feeling the spinal column?" and they earnestly replied, "We do," and wanted to prove it then and there. "How then does it happen," the medical reporter asked, "that the theory of nerve control and the art of chiropractic is taken up by not a single research laboratory of a university, nor by a scientific foundation like that of Rockefeller or Carnegie, nor has the financial endowment for its investigation and promotion been provided by a single rich man or chiropractor?" And the quick reply was, "All that is coming in the near future. Newly discovered truth has always been opposed and its proponents persecuted. Even Harvey was imprisoned for announcing the discovery of the circulation of the blood."

"Your history is as faulty as your science," was the reply of the medical reporter as he hurried away to prepare his copy.

MOVING PICTURES IN MEDICAL TEACHING

The value of moving pictures in medical teaching has been widely debated. It is not a short cut to knowledge, as enthusiasts claimed twenty years ago when movies first came into use. There is no such thing as a short cut to information, for knowledge can be acquired only by patient effort. A picture on a screen is evanescent; and it becomes knowledge only when it is graven deep on the firm tablets of memory.

The preeminent value of the moving picture is that it opens up another avenue of approach to the mind. A description, either written or spoken, is a slow and laborious method which may be likened to successive peeps through a telescope with a narrow angle of vision. The moving picture is a window overlooking the whole field of view on which an action takes place. It introduces the visible conception of a sense of thickness, which is difficult to impart by verbal descriptions and still pictures.

The movies also have other advantages which are well expressed in an article by Dr. J. F. Montague, printed on page 176 of this issue. The author has spent an immense amount of time and effort in securing a series on the subject of proctology. It may be that if other picture-makers would put forth equal effort, movies would occupy a more important place in medical teaching.

THE THREAT OF INFLUENZA

The question of a recurrence of influenza this Winter and Spring is under serious consideration by health officials. The United States Public Health Service publishes the figures of the prevalence of the disease in centers of population throughout the world. These reports indicate that the aggregate of cases is about that of other years during this season of the year, and that the rate of incidence is diminishing at about the same rate as it usually does.

The late Dr. Otto Eichel, Chief of the Division of Vital Statistics of the New York State Department of Health, had made extensive studies of influenza in the past, and with great patience and perseverance had plotted mathematical curves of prevalence during several epidemics. He had also plotted curves for the incidence of cases during epidemics of other diseases, especially poliomyelitis. He formulated a theory that the curve of onset of an epidemic could be expressed by the same mathematical formula as that of its decline; and that the complete curve from the onset through its peak and its decline formed a parabola, or some other well-known mathematical figure, which could be expressed by a simple algebraic formula according to the principles of analytic geometry.

Dr. Eichel's theory is confirmed by common experience with epidemics in which the incidence of cases has been known with accuracy. The epidemic of 1918, for example, was thoroughly studied in a military population of 40,000 soldiers during the world-wide epidemic which occurred in the Fall of 1918. The first recognized cases in New York State were discovered in Camp Upton early in September, and the disease spread in circles from the original cases to those soldiers which were in contact with them. Quarantines were established by companies, which is the usual army procedure, but they were carried out with extremely unequal degrees of efficiency. While cases occurred in all companies, yet in some the incidence was as great as fifty-five per cent of the members, and in others only three per cent.

Moreover, when the epidemic began to decline, the disease broke out in new centers with diminishing frequency, as the companies relaxed the vigilance of their quarantines, and the curve of the decline was the same as that of the onset. This fact became evident when accurate figures were compiled at the close of the epidemic, and were confirmed by the experience in a few villages up-State in which the disease originated in a known case and ran its course without the introduction of new sources of infection.

The method suggested by Dr. Eichel affords the means of prognosis regarding the probability of an extensive outbreak in New York State this year. While the reports of cases are incomplete, yet they are probably more accurate than ever before, because physicians and health authorities are more efficient in making the reports. The opinions of the leaders of the United States Public Health Service and the Departments of Health of New York State and City as quoted in the daily press, are that the prevalence of influenza this year will be about the same as that during the past two or three years.

Dr. Eichel's theory also applies to the incidence of influenza during cycles of years. Extensive epidemics of great virulence occur about once in thirty-three years. The general trend of the curve has been downward since the year 1918, and may be expected to continue downward during the next decade. But within that time it may be anticipated that persistent research will reveal the exact nature of the disease, and efficient measures for its prevention.

For the present, isolation and quarantine appear to be the principal means of prevention; and they are almost total failures because they must be applied to every individual case during the first two or three days of onset. This would mean that every person who has an acute "cold" should voluntarily stay at home and away from other persons. But that is something which neither individuals, nor employers, nor society will permit. The reporting and isolation of fully developed pneumonias are difficult to secure. Much less then are physicians and the people generally prepared to isolate cases of "colds" and sore throats.

Practical measures for controlling influenza will probably have to await the discovery of the means for bacterial detection and identification which are as accurate as those for the detection of the bacteria of diphtheria and typhoid fever.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Twenty-five years ago this Journal established a standard of friendliness to its advertisers which has actuated the Medical Society of the State of New York for a quarter of a century. The Journal of February, 1902, contains the following editorial which is as apropos now as the day it was written.

"*Our Advertisers:* The Publication Committee intends to lay special stress on one of the unwritten laws which have guided it in admitting advertisers to our columns. The Association desires to introduce to its members only those houses whose reputation for commercial integrity is such as to guarantee that their products will be what they are represented to be. If one of our members, overpersuaded by clever advertising, buys what he does not need, it is his own fault, but if, through our columns, he buys something which is not what it was represented to be, the blame may, in part, be imputed to the Committee.

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"Not only actual purchases, but every letter of inquiry mentioning THE NEW YORK STATE JOURNAL will be accepted as evidence of the value of our advertising space."

MEDICAL PROGRESS

The Warfare Against Rabies.—H. Lubinski of the Hygienic Institute of the University of Breslau begins a long article on this subject with the statement that following the war there has been a global increase of rabies (the author restricts the word rabies to the disease as it affects dogs and employs the term lyssa for human rabies). There has been a corresponding increase in bites of mankind by rabid dogs and in the number of cases of human rabies. The author discusses the immune virus, its preparation, conservation, testing for virulence on animals, dose, etc., different health offices using some one method by preference with a general absence of standardization. In some localities the mortality among the vaccinated after exposure is as low as a fourth of one per cent, while the high figures are between 1 and 2 per cent. These figures must be compared with the 10 to 20 per cent mortality among the unvaccinated. The second great problem of prevention, which includes the measures in use in communicable disease in general, involves the immunization of all dogs and hence is a serious problem which can be carried out ideally only for whole countries and not merely for special districts in which the disease is prevalent. This has been tried out on a large scale only in Japan and America where inoculation of several hundred thousand dogs caused a notable decline in rabies. The measure is not a popular one, for in the minds of the people a bite by a freshly immunized dog is thought of as a possible source of disease. In the few cases in which dogs have shown rabies after immunization, bites by stray rabic dogs were probably at fault.—*Klinische Wochenschrift,* November 19, 1926.

The Effect of Emotion on Certain Cases of Asthma.—Lloyd H. Ziegler and David C. Elliott, writing in the *American Journal of the Medical Sciences,* December, 1926, clxxii, 657, call attention to the frequency of neurotic factors in certain cases of bronchial asthma. Graham Brown has reported a case of asthma which developed after long fear, and offered in explanation the theory that fear exhausted the adrenals and left the patient with a marked vagotonia, which vague syndrome seems to be present in many asthmatics. In order to test the effects of emotion, the authors carried out experiments on two groups of asthmatic patients, one of persons with definite protein sensitization and the other consisting of patients who at one time or another exhibited some definite neurosis or psychosis. In the latter group, the expiratory phase of respiration, which is usually unduly prolonged in asthma, became definitely lengthened in the psychopathic group under emotional strain, and was accompanied by other manifestations, such as purposeless movements and fine tremor, during the emotional stimulation. The pulse rate was rapid during the whole experimental period of emotional stimulation, though no changes in the characteristics of the electrocardiogram were noted. The respiratory rate was not increased, but its amplitude and regularity were markedly altered by the emotional stimulation. The patients who were definitely sensitive to protein showed no response to emotional stimulation. In the absence of protein sensitization, or of a history of the same, a careful study of the relation between emotions and asthmatic attacks is indicated, and should help to explain the disease in a limited number of patients.

Presenility Resulting from Endocrine Disturbances.—F. M. Groedel and G. Hubert begin their article with a quotation from Lorand to the effect that in senility and especially precocious senility, there is an increase of connective tissue in all parts of the body and especially in the endocrine glands. He even makes this phenomenon the principal cause of precocious senility. Therapeutically therefore he makes use of hormones, along with iodine as the leading constituent of the thyroid. The authors in their personal experience of these cases state that as a rule these subjects—called technically "sclerotics"—experience a rather abrupt failure of their forces after a record of uniform health. The variability among the patients is associated in some way with differences in the participation of the endocrines and other organs. In some cases there is an increase rather than diminution in some endocrine functions, as the thyroid or gonads. Aside from the endocrines the participation of other structures may dominate the picture as in coronary sclerosis or sclerotic kidneys, but these cases are not of interest in the present connection as the authors are concerned chiefly with sclerosis of the endocrines.

To cite a case in point, a healthy woman of 78 suddenly began to lose strength and weight without apparent cause, carcinoma being excluded. Interferometry, as recommended by Hirsch, which has to do with a modification of the Abderhalden reaction, showed that three of the ductless glands—ovary, thyroid and hypophysis — were undergoing retrogressive changes, this indicating in almost every case a lowering of the function. In two middle-aged men whose cases are recorded, arteriosclerosis was prominent and the interferometric blood test showed an atrophic state of the testicle. Many other cases are reported in which the presence of such lesions as arteriosclerosis in the aorta and various other localities, sclerotic liver and kidneys, suggests a sclerosis of the endocrine glands. However, in certain of these cases of clinical sclerosis the test showed that some or all of the endocrines were not abnormal and in this type of case the use of hormones would not be indicated. The authors sum up as follows: In progressive arteriosclerosis we often find a strong disintegration of some of the endocrine glands indicating a lowered function of the same. Only one gland or several may be implicated. The authors have not carried out the gland treatment long enough to determine its utility in these deficiency cases but are quite hopeful as to the result.—*Deutsche medizinische Wochenschrift,* November 19, 1926.

Tropical Typhus and Brill's Disease.—William Fletcher and J. E. Lesslar, writing in the *Journal of Tropical Medicine and Hygiene,* November 15, 1926, xxix, 22, point out that the epidemic typhus fever of Eastern Europe has its feebler image in tropical typhus. Epidemic typhus is essentially a disease of cold and temperate climates; when it breaks out in subtropical countries it flares up in winter and dies down in the spring, while tropical typhus appears in spring and dies down in winter. The symptoms of epidemic typhus and tropical typhus are the same, both diseases run the same course, and in both the Weil-Felix reaction is positive; but the two diseases are totally different from the standpoint of the sanitarian and the public.

Tropical typhus does not spread from man to man, does not give rise to epidemics, is not carried by lice, special precautions to avoid infection are unnecessary, and the mortality rate is low. In tropical typhus, as shown by Von Loghem, two groups of *B. proteus* are concerned: (1) The *indologenes,* which produces indol in peptone water, and (2) the *nonindologenes* group which does not react thus. The authors have employed in the Weil-Felix reaction, a nonindologenic strain of *B. proteus* x19 (Kingsbury) and a number of indologenic strains, and in this way have demonstrated the two groups of tropical typhus. One group, which they call K, agglutinates an anindologenic strain (Kingsbury) but does not agglutinate the indologenic strains, such as Warsaw and No. 67 from the National Collection of Type Cultures. The second group, W, agglutinates the indologenic strains, but does not agglutinate the nonindologenic strains. These two groups seem to be equally common in the Malay States; they differ but little in their course and symptoms. In neither group is there evidence of transmission by lice, but there is reason to suspect that the disease is conveyed by an ectoparasite of the rat or the mouse, as the disease has a tendency to attack cattle keepers and agricultural workers. The authors point out the similarity of tropical typhus and Brill's disease, which, as described by Brill, resembles typhus fever more than does any other disease, but, unlike typhus, is not communicable, not a grave and fatal malady, and epidemics do not arise, though it is constantly present in the community. These mild forms of typhus-like fever are widespread, having been reported from every quarter of the globe. It is important in using the Weil-Felix reaction to make two cultures of *B. proteus* x 19, one indologenic and the other nonindologenic, in every case.

The Incorrect Use of Iodine in the Treatment of Goiter.—Donald Guthrie, writing in the *Therapeutic Gazette,* December 15, 1926, lxii, 12, asserts that the wholesale administration of iodine in water supplies, table salt, candied tablets, tinctures, and salves has unquestionably injured hundreds of persons with goiter. Physicians having goiter patients coming to them for consultation are amazed at the prevalence of this incorrect use of iodine, not only self administered, but unfortunately frequently incorrectly prescribed by physicians. The scope of iodine therapy in the treatment of goiter is thus summarized: Iodine in very small amounts will prevent the development of the simple colloid goiter of adolescence, and will also cure a certain number of the goiters of adolescence. These patients should remain under observation while the treatment is given. It is unsafe to give iodine in any form to the patient with colloid goiter after the age of 25, for the glands in these patients contain small adenomata which may be activated by its use. Iodine should never be given in any form or any amount to the patient having rounded goiter of long standing, since these quiescent adenomatous goiters will become toxic. Goiters of this type can be removed surgically with great safety; there is no medical treatment that is safe. Iodine should not be given to any adenomatous goiter patient who is already toxic. The iodine treatment for exophthalmic goiter is not a curative one; it is merely a mode of treatment whereby the exophthalmic goiter patient is prepared for operation, and is best given in a hospital. The public should be warned of the great danger of the self-administration of iodine, and physicians should understand the dangers attending its incorrect use.

Iodized Oil in the Treatment of Bronchiectasis.—A supraglottic method of injecting iodized oil, which is applicable for both diagnostic and therapeutic purposes in bronchiectasis is described by Bruce Whyte (*Canadian Medical Association Journal,* December, 1926, xvi, 12). With the patient seated, the soft palate and posterior portion of the tongue are anesthetized by swabbing with a 5 per cent. solution of butyn or a 10 per cent. solution of cocaine; then with a small syringe 1 to 3 c.c. of a 2 per cent. solution of butyn is injected into the larynx, with the aid of the headlight of a laryngeal mirror. After waiting 5 to 10 minutes, the tip of a 20 c.c. laryngeal syringe, filled with iodized oil, is placed over the patient's open glottis and 15 c.c. of oil injected in 30 seconds. After completing the injection the patient continues to breathe steadily and to hold his tongue for half a minute. Fluoroscopic and roentgenologic examinations can then be made. The deposition of the oil can be controlled by the position of the patient. For example, for filling a bronchus on the right side, the patient's trunk should be inclined to the right. The intervals between injections are governed by the quantity of oil required. In the writer's practice 5 to 20 c.c. of the oil have been injected at intervals of 5 to 14 days. The duration of the treatment depends upon the tenacity of the symptoms. Thirteen patients receiving these injections showed decided improvement. With this treatment symptomatic improvement has also been reported by Armand-Delille and Nicaud and Dollfuss.

Treatment of Serous Pleurisy by Autoinjections.—J. de Hartgohe of Amsterdam began to treat serous pleurisy by autoserotherapy in 1920 and relates six case histories which occurred during the interim of six years. He does not mention the experience of others in this field beyond crediting Gilbert with originating the method in 1894, but discusses the nature of the favorable results which must be ascribed either to the action of an antigen in the serum or to protein stimulation—possibly to both factors acting in concert. His conclusions are in part as follows: In acute primary serous pleurisy autoserotherapy furnishes a resource for cutting short the duration of the disease. A diagnostic puncture should be made before the injection and one should not wait long before injecting after the diagnosis is made. Study of the case histories appears to show that the injections are not practised until after other ordinary measures have failed to give relief and the patients who were injected were, or made the impression of being, very sick. In other words there was evidently nothing experimental about this plan of treatment. The cases cited appeared to be given to illustrate the special types of the disease in which the treatment might or might not prove of value. One old man died under the treatment without experiencing any benefit, while another patient not only failed to benefit but developed hemoptysis. On the other hand in several cases the benefit was not only prompt but decisive, the injections having been followed by defervescence, diuresis, relief of pain, etc. The puncture fluid was merely injected under the skin of the upper arm. When benefit followed the first injection no second one was practised, but in the cases with tardy response the injections were repeated at daily intervals.—*Nederlandsch Tijdschrift voor Geneeskunde,* December 11, 1926.

Etiology of Mycosis Fungoides.—S. R. Brünauer gives a brief outline of the history of our knowledge of this affection with especial reference to the obscurity of its origin. One source of difficulty lies in the absence of type of this disease which caused Zumbusch to distinguish at least three different forms (of which one shades into sarcoma), suggesting corresponding differences in etiology. The author, having under observation a case of the generalized type, succeeded in communicating it to guinea pigs. The inoculation material was taken from the cadaver of the deceased patient and comprised material from the skin and viscera as well. The site of inoculation was the subcutaneous tissue of the abdomen. No lesions in situ are mentioned, but after nine weeks' incubation nodules developed in the liver and spleen which were identical histologically with those in the human subject. The author mentions the continuous failure of observers for many years past to isolate or cultivate any form of organism from the lesions of the disease, save certain finds due to secondary infection. No successful animal inoculations are mentioned except some finds by Ceelen in which guinea pigs were also used but which histologically were not identical with mycosis. The finds of the author if accepted will place the disease back among the infectious granulomata. It is doubtful however if any light has been thrown on the cause of the disease in man. Several efforts to inoculate macacus monkeys were in vain, and there is no suggestion of transmissibility from man to man. Even the possibility of general infection from a local focus is in doubt. French observers used to speak of a "mycosis chancre" but since the employment of röntgen diagnosis this notion has not been upheld.—*Deutsche medizinische Wochenschrift,* November 26, 1926.

The Control of Pain Through the Nasal Ganglion.—For the relief of all syndromes related to the nasal ganglion, both the neuralgias and the sympathetic reflex syndromes, John Edward Loftus (*Therapeutic Gazette,* December 15, 1926, xlii, 12) describes a method of injecting the nasal ganglion. The simple painting of the region of the sphenopalatine foramen with cocaine (2 to 90 per cent.), formaldehyde, or silver nitrate, is often curative but difficult because of the irregularities of the septum or the configuration of the turbinates. The injection is made by the use of a simple straight needle fastened in a heavy crossbar, which enables one to secure it in a strong grasp and put great pressure upon it. For the lateral wall a curved needle of the same style is often more convenient. The ganglion is cocainized by an applicator carrying one drop of saturated (90 per cent.) watery solution of cocaine hydrochloride placed under the tip of the middle turbinate, then moved to lie over the sphenopalatine foramen just behind the posterior tip of the middle turbinate, where it is allowed to remain for five minutes. Following this, 0.5 c.c. of a 5 per cent. phenol solution in 95 per cent. alcohol is injected. The injection is followed by a slight sense of pain, different from the neuralgic pain, which lasts from 2 hours to 3 days. In old and severe cases the injection may have to be repeated as often as ten times. This treatment has been found useful in all cases of earache from eustachian tube and middle-ear inflammation, cases of spasms of the entire face accompanied by spasms of the throat, larynx, esophagus, and diaphragm. It has been effective in a case of lower half headache, and in the control of intercostal pain, gastric pain, nausea, vomiting and diarrhea of reflex origin, nodular headache, syphilitic headache. Certain cases of hay-fever which do not respond to specific protein treatment are relieved by cocainizing the nasal ganglion. In neuralgic syndromes, starting as an acute coryza, in which pain later develops around the root of the nose, in and about the eye, upper jaw, teeth, and sometimes in the lower jaw, extending backward to the temple, zygoma, and mastoid, often to the shoulder, axilla, arm, and hand, these injections afford relief.

Nascent Iodine in Otorrhea.—In the routine treatment of middle-ear suppuration nascent iodine has given F. Pierce Sturm better results in both acute and chronic cases than any other method of equal simplicity at present available. Even in acute mastoiditis, where operation has been refused, it has cured apparently desperate cases. The adult patient takes internally 10 grains of potassium iodide, well diluted, every four hours. Every two hours, or even more frequently, the external meatus is filled with hydrogen peroxide, which is retained for ten minutes. The resulting reaction between the absorbed salt and the applied drops liberates nascent iodine within the tissues of the infected middle ear cleft. With variations in the dosage of the active salt, according to age and idiosyncrasy, the treatment is useful in every case of suppurative otitis media.—*British Medical Journal,* December 11, 1926, ii, 3440.

Diphtheria Problems.—Professor R. Degkwitz, the pediatrist, writing in the *Klinische Wochenschrift,* of December 3, 1926, sums up our present day knowledge in the light of the ancient and recent history of the disease. It is accepted as proven that if a subject have antitoxin in his blood he is immune, if not, he is susceptible. Unless the person has recently recovered or unless he has been immunized artificially, that is in the naturally immune, how is the antitoxin formed? We can only surmise that he has been immunized by a mild attack or through being a carrier. Originally a disease of this sort is regarded as a pandemic and later it becomes endemic. In time all of the adults become immunized, leaving the young children as the natural victims of these diseases, whence the term "contagious diseases of childhood" for measles, whooping cough, mumps, smallpox, and so on. But this does not mean that children are essentially more susceptible to contagion. It is evident that the immunity acquired by the adult is not inheritable. In the middle of the XIX century (1847) diphtheria was practically unknown in Germany. French accounts of it were looked upon with suspicion. When in 1849 it began to appear in Germany it attacked mostly children. Yet the study of history shows that the disease had prevailed over a century before. There is no reason to believe that the bacillus had disappeared, but doubtless it had lost its virulence as a pathogenic agent while still able to immunize the community. This of course invokes the theory of mutation. It is evident that the virulent and non-virulent forms may exist at times side by side, the new generation being infected by virulent carriers. The natural immunes have evidently been immunized somehow by non-virulent carriers; these of course give a negative reaction to the Schick test.

LEGAL

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ARBITRATION ONE OF THE MOST IMPORTANT POWERS VESTED IN THE NEW COMMITTEE ON GRIEVANCES

With the huge mass of litigation literally overpowering our courts of justice, both federal and state, businessmen have long since adopted the principles of arbitration in the settlement of their differences. By this means technicalities to a large extent are done away with, expense is avoided and, above all, a prompt disposition of the matter can be had. The state courts in the metropolitan district are from one and one-half to three years behind in their calendars, while the federal courts, in civil cases, are now trying actions which were commenced four and five years ago.

Where each of the parties to a controversy believes in the respective merits of his side, they are not afraid to submit the determination of their case to a prompt, fair and impartial tribunal, each knowing well that if justice and right are on his side, his contention will prevail.

Of the many enlightened and forward-looking provisions of the new Medical Practice Act, none is more important, more modern or more harmonious with present-day conceptions of justice than the arbitration clause contained in subdivision 6 of Section 174-b, which reads:

> "Any controversy between two or more physicians, or between a physician or physicians and another person, which said parties to such controversy agree to submit to arbitration, may be submitted in writing to said committee on grievances, which may in its discretion act as arbitrator in said controversy, and the decision of said committee upon such arbitration shall be final, and where the same orders the payment of a sum of money, the same may be docketed as a judgment of a court of record and enforced as such judgment, provided the terms of the arbitration include such provision."

In considering the scope and extent of the powers vested in the Committee on Grievances by virtue of this section, the following ideas should be clearly noted:

First: The Grievance Committee has no power to arbitrate or decide any question unless both parties to the controversy consent to submit their differences to the Committee for its decision. The Committee has power to decide those controversies only "which said parties to such controversy agree to submit to arbitration."

Second: The controversy thus made arbitrable is one either "between two or more physicians or between a physician or physicians and another person." Thus doctors may, by means of this arrangement, receive a prompt and fair decision of such differences as may arise between them. In the same manner a controversy between a patient or any person and a physician may likewise be submitted to this tribunal for its decision. Thus any patient feeling himself aggrieved by the professional treatment accorded to him by his physician may, if both he and the physician agree, submit their controversy to the Committee on Grievances for its determination. Any controversy, therefore, which heretofore was necessarily determined through the public and harrassing means of a malpractice action in the courts may now be decided promptly, privately and economically by the Committee, provided both parties to the controversy "submit to arbitration."

Third: The nature of the judgment which may be rendered in arbitration is clearly defined. In the first place, the law provides that the "decision of said committee upon such arbitration shall be final." This does away with the "law's delay" so often attendant upon a long succession of appeals. Under this provision, when the Committee decides, it decides once and for all time. Its decision is a final one and the controversy ends there once and forever. Where the Committee awards a sum of money, its award "may be docketed as a judgment of a court of record and enforced as such judgment." But the Committee is without power to make such judgment unless "the terms of the arbitration include such provision"; that is to say, the award of the Committee can be docketed as a judgment of a court of record only where the parties to the controversy in advance so agree.

Thus it is apparent that the whole arbitration plan embodied in the statute rests upon the voluntary consent of the parties to the controversy. The parties may invoke this machinery or they may not. It cannot be invoked without their consent.

As time goes by it is our prediction that the salutary and forward-looking powers of arbitration will be frequently invoked both by the laity and the profession. From time to time the writer has had his attention called to extremely acrimonious disputes between doctors arising out of their professional relations and from differences as to what the proper observance of ethical conduct in a given case required. At least one such controversy is recalled which resulted in a very bitter libel suit in court brought by one physician against another. Such an action necessarily results in publicity and no matter who wins the case, both parties to the action, to an appreciable degree, are the losers as a result of the public airing of their dispute.

As the Grievance Committee becomes better known and understood and earns, as in our opinion it undoubtedly will earn, the respect and confidence of the laity as well as of the profession, an honest patient feeling that he has been aggrieved by reason of the treatment accorded him by his physician, will be willing to submit his complaint to arbitration. Where such a state of mind exists on the part of the patient, we are confident that it will be reciprocated by the physician.

What tribunal could be more competent to decide whether or not, in a given situation, a doctor has followed proper and approved practice and has complied with those duties which rest upon him, than a committee of doctors whose whole lives have been devoted to a study of the healing art? Where doctors and patients agree to arbitrate their differences, all of the unpleasant features of a malpractice action are done away with. Only those physicians who have been through that experience can fully appreciate how advantageous would be a prompt and private determination.

The question has been asked as to whether or not a physician insured under the group plan is covered against an adverse decision of the Grievance Committee upon a dispute between him and his patient. Where a patient and a physician agree to arbitrate a difference which, but for such arbitration, would have been the subject of a malpractice action, and where, upon the submission of such a controversy the Committee on Grievances orders the payment of a sum of money, such an order or decision would stand upon the same footing as a judgment of a court rendered upon a verdict of a jury in a malpractice suit. That is to say, if a patient and a physician agree to arbitrate such dispute and the award goes against the physician, the physician is covered by the group plan of insurance in precisely the same way as he would be covered were the dispute determined by a court instead of the Committee on Grievances.

The more the Medical Practice Act of 1926 is read, considered and applied, the more will it win the approval and confidence of both the medical profession and the laity. The Medical Society of the State of New York may well congratulate itself upon having written into the statutes of this State a thoroughly modern, comprehensive and enlightened law.

FRACTURE OF ELBOW—WORKMEN'S COMPENSATION

The defendant in this action was a physician specializing in surgery. In the course of his practice patients were referred to him by an insurance company covering workmen's compensation risk. The plaintiff while engaged in his occupation as a painter fell from a ladder sustaining an injury to his arm. He was referred to a physician for treatment who attended him for a period of time. The condition of the arm not improving X-rays were taken of the injured arm which did not disclose any evidence of a past or present fracture. Another set of X-rays were subsequently taken which were likewise negative. The employee continued to complain of the injury to his arm and was finally referred to the defendant for treatment. After examination the defendant performed an operation removing some fibrous tissue in the region of the elbow. No evidence of fracture was found at this time. After the operation and treatment by the defendant the patient still continued to complain of the condition of his arm and he was then referred to another physician who found that he was well able to extend and flex his arm and found no evidence or signs of fracture. The patient still continuing to complain of his injury was referred to another physician who found no pathological condition, but a slight atrophy in the right triceps. His complaints continuing, further X-rays were taken of his arm which were reported negative. The insurance carrier having provided all of this medical treatment for the patient and having paid him workmen's compensation during the period, refused to make any further payments. The patient then presented a claim against his employer before the Workmen's Compensation Commission. He also instituted an action of alleged malpractice against the defendant surgeon, it being claimed that a piece of bone had been broken in the patient's arm which the defendant surgeon had failed to discover and remove and that the patient would have to submit to another operation for the removal of the same. Awards having been made to the plaintiff under the Workmen's Compensation Law for the injuries which he had sustained, in the answer of the defendant to the malpractice complaint an affirmative defense was pleaded of the making of the awards and payments to the plaintiff under the Workmen's Compensation Act.

The action continued on the calendar for some period of time. The plaintiff failing to prosecute the same, upon motion made on behalf of the defendant, the complaint was dismissed, terminating the action in the surgeon's favor.

NEWS NOTES

DINNER TO DR. WENDELL C. PHILLIPS

The Medical Society of the State of New York gave a dinner in honor of Dr. Wendell Christopher Phillips on the evening of Thursday, January 27th, at the Hotel Waldorf-Astoria, New York City. Over four hundred guests were present, including the officers and members of committees of the State Society, and members from the far ends of the State. The arrangements were in the immediate charge of a committee consisting of Dr. N. R. Van Etten, Chairman, Dr. D. S. Dougherty, Dr. J. E. Jennings, Dr. W. H. Ross, and Dr. O. S. Wightman.

The occasion was in honor of the presidency of the American Medical Association which has been filled by Dr. Phillips since May, 1926. The dinner was in a sense his home-coming to his own organization ond intimate friends.

The career of Dr. Phillips was happily reviewed by Dr. George M. Fisher, toastmaster, and President of the Medical Society of the State of New York. "Dr. Phillips," he said, "has risen from the ranks to the highest position of honor and responsibility among the physicians of the United States. Graduating from the New York University Medical College in 1882, he at once became active in the New York County Medical Society and served as its president in 1904, and as president of the Medical Society of the State of New York in 1911. He was elected a trustee of the American Medical Association in 1918, and became its president in 1926.

"Dr. Phillips was also prominent in the societies of his chosen specialty, and became president of the New York Otological Society and the American Laryngological, Rhinological & Otological Society.

"A striking point in his career was the fact that he always became a leader in whatever society he worked, and soon attained to the presidency of nearly every one. It therefore is true that the life of Dr. Wendell C. Phillips is a record of medical progress during the last four decades.

"But we are not here merely to recognize the honors to which Dr. Phillips has attained. A man is not remembered for what he has amassed for himself, but for what he has given to others. Dr. Phillips has been untiring in urging his fellow physicians to adapt themselves to the methods of practice that are demanded by the recent progress in preventive medicine. His inaugural address as President of the American Medical Association was a vision of what the family physician will be in the near future when medical knowledge that is already at hand is applied in every-day practice. In that address he emphasized the expression, 'Every Physician a Health Teacher,' and that ideal will soon be attained if one may judge him by his success in his past prophecies.

"The spirit of service which has actuated Dr. Phillips has led him into medical activities outside the medical profession. He was the organizer of the New York State Society of the Hard of Hearing, and the first president of the American Federation of Organizations of the Hard of Hearing,—societies which have been of incalculable benefit to the deaf."

Dr. Samuel Lambert, President of the New York Academy of Medicine, brought the cordial greeting of the members of the Academy, which is composed of men of the highest standing in medicine in New York City and its vicinity.

Dr. Harlow Brooks, Past President of the American Society of Physicians, brought the greetings of that organization, and said:

"This is a delightful family party. I can't look on it as anything else. Dr. Phillips always did have a large family around him, his or others', it made little difference, and we all feel we have gathered around him for so many years as our leader, as though he owns us.

"Those of you who read his inaugural address of only a few weeks ago, I think, read one of the most notable addresses which has ever been given by a medical speaker in this country. There was no equivocation about what he meant. He announced a policy which it seems to me, and I think to all physicians, does seem to be one of the outstanding, progressive policies of the physician. It was not always popular, but it has to be popular now to break down the Brahmanistic barrier which lies between the profession and the people whom we serve. I think that Dr. Phillips has made it the policy of the profession over the entire country willy-nilly (and most of us think it is willy) to break down this unnecessary fetish which has stood between us and our patients, and we now can approach the patient in a much more direct way. We can approach the press in a much more direct way. We can approach all medical organizations and all social organizations and bring them together, to unite in a greater work.

"It is quite beside the point to say anything complimentary about Dr. Phillips. We know him. He is one of us. He has been our leader for many years, and his honor which comes to him, I think, most of us abrogate to ourselves. Of course, Phillips deserves it, but we put Phillips there, or Phillips put us in a position where we could put him there. I feel that a new era of prosperity for the profession is coming in with this presidency which gives us all as much personal as well as professional pride and joy."

Dr. Gordon Berry, President of the American Federation for the Hard of Hearing, spoke on behalf of a delegation from his organization which was present. Speaking of the practical work of the Federation, Dr. Berry said:

"There are many hard of hearing children in our schools, nobody knows how many. We have taken it upon ourselves first to try to discover by a survey something about them, how many there are, and right away we discovered that some short and accurate means of testing the hearing must be devised. The Federation was able to interest the Bell Telephone Laboratories of the Western Electric Company, and they have finally produced an otometer which can test children in groups of forty at a time, and it takes about fifteen minutes to test those forty. By this and similar means over 20,000 children hove now been tested and we can report with a fair degree of accuracy that from eight to twelve per cent of all school children under high school age have a notable impairment of hearing which means from 3,000,000 to 5,000,000 children in this country.

"I am happy to say that largely through Dr. Phillips and the New York League's efforts, your city is now planning a city-wide investigation of the hearing of the school children. Then the impaired and handicapped cases must be investigated, treated in clinics, and given special educational advantages. How else can we systematically combat and prevent deafness?

"Dr. Phillips must look with a great deal of price on such a record."

Dr. David Chester Brown, speaking for the Trustees of the American Medical Association, reviewed the work of Dr. Phillips as Trustee of the Association since his appointment in 1917, and of his intense activities during the World War and afterward, when he was made President of the Trustees. Dr. Brown also reviewed the great growth in the activities of the Trustees since 1917, so that instead of one meeting annually, meetings are held monthly, and much time is required of them in the intervals between the meetings.

The principal address was given by the Reverend Harry Emerson Fosdick, D.D., Pastor of the Park Avenue Baptist Church, which Dr. Phillips attends. Dr. Fosdick spoke on the debt of religion to science. This address expresses the point of view of the scientific physician so clearly that it is published in full on page 173.

Dr. Phillips, in making the closing address of the evening, said that "Friendship" is the word that has gone through his mind during the evening. "I can call almost every man in this audience by his first name," he said, "and when we meet in private conversation, we call each other by our first names. This means a great deal, and is one of the reasons that I can use that word 'friendship' tonight.

"There has been a good deal said about these offices that I have held, but perhaps I can tell you a little secret about some of those offices. I appreciated the honor when I was made President of the Medical Society of the County of New York. It was a great honor. But to me the honor was immediately turned into a job, and when I was made President of the New York State Medical Society, that honor was fully appreciated, but that honor was turned into a job. When the presidency of the great American Medical Association came, marvelous honor that it is, that honor was turned into a job. And so it has been throughout all my life. I love to work, and it is that love of work that has been one of the secrets of some of these things you have learned about tonight.

"There is another thing that has to do with us in our lives, and I have been blessed with it probably by birth—a joyous optimism. I haven't much use and never did have much use for the pessimist. That hopeful nature that God gave me is one of the great secrets of the happy life which I have led."

In closing, Dr. Phillips quoted Kipling's poem which well expresses the aspirations of himself and his friends.

"When Earth's last picture is painted
And the tubes are twisted and dried,
When the oldest colors have faded
And the youngest critic has died,
We shall rest, and, faith we shall need it—
Lie down for an aeon or two,
Till the Master of All Good Workmen
Shall put us to work anew.

"And those that were good shall be happy;
They shall sit in a golden chair;
They shall splash at a ten-league canvas
With brushes of comet's hair;
They shall find real saints to draw from,
They shall find Magdalene, Peter and Paul,
They shall work for an age at a sitting
Work and never be tired at all!

"And only the Master shall praise us,
And only the Master shall blame;
And no one shall work for money,
And no one shall work for fame,
But each for the joy of working,
And each in his separate star,
Shall draw the thing as he sees it
For the God of Things as they are!"

THE CHIROPRACTIC HEARINGS

Two hearings by the legislative committee to investigate chiropractic were held in New York City, December 2 and 23, 1926.

The chiropractors presented additional arguments along about the same lines as those in the first two hearings reported on page 85 of the January 15 issue of this Journal.

The committee has also held two additional hearings at which the opponents of chiropractic were heard, one in Albany on Thursday, February 3d, in the capitol at Albany, and another the next day in the Aldermanic Chamber, New York City.

The Albany hearing was in charge of Dr. Harold Rypins, Secretary of the Board of Medical Examiners. He introduced physicians with the intention of showing four points:

1. There is no scientific basis for the claims of the chiropractors.
2. Their educational standards are far too low.
3. The fundamental necessity in treatment is diagnosis, a knowledge of which chiropractors do not have.
4. Chiropractic is a menace to public health.

The first witness was Dr. Rypins himself who told of his investigation of chiropractic in 1924 and 1925 at the suggestion of his chief, Dr. Augustus S. Downing, Director of Professional Education. He had read all the chiropractic books in the State medical library, 129 in number, and all the journals of chiropractic, 5,026 in number. He had visited the National School of Chiropractic in Chicago, and the Palmer School in Davenport, seen their equipment and attended their classes. He investigated them in the same way that he investigated medical schools in the course of his official duties. He had also talked with many chiropractors and got their views regarding the foundations of chiropractic. Dr. Rypins said that he had written his observations in a report which he filed with the Committee, but he gave a resumé of the fundamental principles of chiropractic as he had found them stated in the books and schools, and described by B. J. Palmer, the founder of the cult. Dr. Rypins said that chiropractic was essentially a system of faith healing which resembled Christian Science in many ways. The chiropractors have a theory of a universal intelligence which Christian Science advocates call a Universal God. The intelligence or God activates every action of the body and mind. It enters the body by way of the brain, flows down the spinal cord and out through the nerves, and returns to the brain by other nerves. Sickness is the result of the failure of the universal intelligence to pass through to the brain and nerves. Christian Scientists say the blocking of the force occurs in the brain or mind; chiropractors say it occurs at the points where the nerves leave the spinal column. The Christian Scientists say "set the mind right and sickness ceases." The chiropractors claim to secure the same result by "releasing" the nerves from pressure.

Mr. Otis, counsel for the committee, said that the chiropractors were not claiming that faith entered into their treatment, but Dr. Rypins replied that B. J. Palmer claimed it and so stated it to him; and he also said that faith was impressed on every student and that every chiropractor present in the room would recall that fact. Palmer insists that graduates of his school explain the theory of transmission of divine energy to their patients.

Dr. Rypins said that the faith of both the students and the patients was visualized by the "neurocalometer," which is a sensitive electric thermopile. The theory of action of the instrument is that its needle is deflected by the flow of divine energy along the nerve, while actually it indicates differences of temperature. A reading is taken with the instrument over a vertebra, an adjustment is made and another reading is taken which is nearly always different from the first because the manipulations have produced a slight change in the temperature of the skin, but the patient is immensely impressed with the movement of the needle and his faith is correspondingly elevated.

The second witness was Dr. Matthias Nicoll, Jr., Commissioner of Health of New York State. Dr. Nicoll said that chiropractors acknowledge that they practice medicine and treat contagious diseases, although they know little about them and say they have no need to study them; yet failure to recognize them and treat them properly is not only harmful to the patient, but is also a public menace. Dr. Nicoll also said that the State Department of Health is supervising 2,000 children crippled from poliomyelitis, many of whom were still almost helpless because they were improperly treated by chiropractors during the early stages when improvement might be effected.

In closing Dr. Nicoll expressed the hope that the committee will not recommend anyone to be licensed to treat the sick unless he is fitted to practice medicine.

Dr. Augustus S. Downing, Deputy State Commissioner of Education, in charge of professional education, certified that he could not find any evidence of any scientific basis for the chiropractic treatment of diseases, although he had investigated it from many angles and during many years. Dr. Downing exhibited the catalogues of several chiropractic schools and showed that practically no preliminary educational qualifications are required. He also showed a catalogue of the National School of Chiropractic of Chicago, in which is outlined a correspondence course leading up to a "Diploma" in chiropractic. Many chiropractors are practising on the basis of these diplomas. If the holder of a diploma attends the school for three months residence, he gets a doctor's degree. On this Dr. Downing commented: "You can see the absolute insufficiency of the training to qualify anyone to deal with the human body."

Dr. Downing also exhibited the applications of several chiropractors who wished to register as physio-therapists. These men gave their educational qualifications and made them appear as high as possible. Dr. Downing gave examples of the education these men claimed. One applicant from Batavia had attended the National College of Chiropractic in Chicago for six months and received the degree of doctor. "The title of doctor when given by a University indicates that the recipient is a learned man and has given quite a period of time to the intensive study of some particular branch," said Dr. Downing. "Yet this man exploits the title of doctor after a brief study and with no evidence of a preliminary education."

A man in Wolcott got a title of doctor after three months' study in the New Jersey College of Chiropractic. A man in Niagara Falls got a diploma in the National School after three months' study and has practiced chiropractic ever since. A man in Buffalo attended a school one month and does not say that he ever received even a diploma and yet he has been a practitioner of chiropractic. A man in Buffalo attended the American College of Chiropractic for three months and got a certificate of dissection; and also in the same time received a certificate of proficiency in X-ray and spinography.

"I have never opposed the practice of homeopathy, eclecticism, osteopathy or chiropractic as such," said Dr. Downing, "but I have insisted that anyone who practices any form of healing shall have the education necessary to understand the disease and the body of the patient, and the action of the therapeutic agencies which he applies."

Dr. Downing also said that the chiropractors seem willing to accept high educational standards for all who will enter the practice in the future, provided a waiver clause was inserted permitting those now engaged in the practice to continue. The waiver clause cannot be accepted by the Regents for it is wrong in principle.

Dr. James F. Rooney of Albany, when asked by the counsel for the Committee if a medical doctor ever needed the assistance of a chiropractor, said that he never knew of such an instance. He said that he based his objection to the recognition of chiropractors on two points: 1, it was not founded on science; and 2, it is a menace to the public in that it denies the modern conception of contagious diseases. He cited diphtheria and smallpox as examples of diseases that are controlled by vaccines and serums, which chiropractors say are not needed. Answering the chiropractors' offer to report contagious diseases, Dr. Rooney showed the impossibility of recognizing them without long scientific training.

Dr. Frederick Parsons, Commissioner of the State Department of Mental Hygiene, told of the impractical nature of the theory of chiropractic, and said that the spinal column was extremely thick and tough, and that to get into it at autopsy was extremely difficult, even with a hammer and chisel. It was therefore almost impossible to move the vertebræ by means of manipulations with the fingers or hands.

Illness does not follow the logical order of text-book descriptions. Serious diseases may have slow, insidious onsets when fatigue and pain may be the principal symptoms. Tuberculosis patients, for example, go to their doctors to get tonics for tired feelings. To diagnose the condition requires a skillful examination, with probably an X-ray photograph and a bacterial examination of the sputum. To neglect these means of diagnosis and delay in the treatment is unfair to the patient, the relatives, and the community. The condition is similar in cancer, heart disease, and diabetes.

Dr. Parsons also described the effective prevention of outbreaks of diphtheria in state hospitals by means of toxin-antitoxin, in contrast with the ineffectiveness of preventive measures based on examinations of the throat and isolations and quarantines.

In closing, Dr. Parsons referred to the mental capacity tests used in the Army during the World War, and said that they showed that the average mental age of the troops of the whole Army was thirteen and a half years. At least one-third of the people have the mental capacity of thirteen-year-old children, and to them any doctor appears as good as another. The intelligent man knows a good doctor when he sees one. The State has a duty to perform for the unintelligent to certify that a doctor is competent when it gives him a license to diagnose and treat disease.

Dr. Parsons was asked by the Counsel of the Committee: "Suppose I come down from Albany on a sleeper and get a lame back. Ought not I have the privilege of getting it rubbed by a chiropractor?" The doctor answered: "If a chiropractor can rub your back, why can't he rub your neck for a sore throat?"

Mr. Robert Oliver, attorney for the Medical Society of the State of New York, said that in 1921 the counsel for the Society had investigated chiropractic by examining books on the subjects and submitting their statements to skilled physicians for opinions. He also sent six fourth-year medical students from Bellevue to the chiropractic clinics. The students were first examined physically, and X-rays were taken of their spinal columns, both before and after the investigations.

The students consulted chiropractors for pretended ailments. One said he had pains in the front of his foot, and another, eye trouble. Both received spinal manipulations, and neither showed the least change in their spinal cords.

Mr. Oliver filed the detailed reports of the investigations with the Committee. This ended the hearing in Albany.

The hearing of the Committee was resumed on the morning of Friday, February 4, in the Aldermanic Chambers of the City Hall, New York City. Dr. William A. Cutter, Dean of the Post Graduate Medical School, was the first witness. He said that he had investigated the chiropractic schools of New York City at the request of Dr. Downing, Director of Professional Education for the New York State Regents. He had found the schools poorly equipped, and the instruction poor. The New York College of Chiropractic, for example, was conducted in a former dwelling house at 245 West 72nd Street. The basement was used as a clinic for patients; the first floor, as offices; the bedrooms on the second and third floors, as classrooms; and the fourth floor as sleeping quarters for the teachers. Yet the school claimed to have an enrollment of 400 students.

Some chiropractic schools were granting degrees without authority from the Regents, and one was giving the degree of Doctor of Philosophy.

As a result of the investigation, the managers of two schools were prosecuted by the District Attorney, and convicted of violation of the laws.

The question was asked: "Assuming proper chiropractic schools exist, would you say that chiropractic was a proper subject for legislation?" The answer was: "There is no need for a new law."

Concerning the preliminary education required for entrance into the schools, Dr. Cutter said that the catalogue requirements were "A high school education or its equivalent"; but the equivalent that was accepted was merely the ability to read and write.

The catalogues of the chiropractic schools required 2,000 hours of instruction during the course, but actually the lectures were curtailed and often omitted.

Dr. Louis I. Harris, Commissioner of Health of New York City, said that the Department received dozens of complaints from laymen every year about chiropractors who were treating contagious diseases, such as poliomyelitis, diphtheria, scarlet fever, typhoid and venereal diseases, to the injury of the patients and the menace of the public. The complaints were not merely of failure to report the diseases to the Department, but also of actual harm done to the patients.

When Dr. Harris was asked if he had instituted prosecutions against the chiropractors, he said that he had given the evidence to the District Attorney, and that few or no prosecutions were undertaken.

Dr. Harris said that his Department was not concerned with the question as to what group should treat the sick; but that the Department does expect all healers to recognize communicable diseases, and to take measures to control them. While doctors can use any form of treatment, the burden is equally upon all to make correct diagnoses, and to be allies of the Department of Health. A chiropractor does not recognize communicable diseases, for he denies their bacterial origin and the necessity of recognizing bacteria; and he has not been trained in the bedside recognition of the diseases. He is therefore an opponent of the Department of Health.

The counsel for the Committee again proposed the question of a lame back to be treated with rubbing. Dr. Harris said that a masseur might perform a manipulation which the patient asked for, but neither the masseur nor a chiropractor had a right to make a diagnosis. A lame back, for example, might be caused by a sarcoma, or tuberculosis, or an aneurism, or high blood pressure, or impaired kidney; and in any of these conditions, rubbing might do harm. If chiropractors were merely masseurs, their business would be gone. They demand the right to make diagnosis.

Dr. Harris said there was no need for a new legislation. Let the chiropractors study to know diseases as a doctor does, and do not give the benediction of the law to those who are not qualified.

Dr. Harris was asked a number of questions concerning the advisability of recognizing the chiropractors with certain restrictions, such as that of requiring them to report communicable diseases, to which he replied clearly and concisely, giving the point of view of the physicians.

When Dr. Harris was asked about the mentality of the public, and the ability of the people generally to tell a good doctor from one unskilled, he said, "I would not disparage the public, but the people are not fitted to judge of any one's ability to build a bridge or do any other scientific work, medicine included."

Mr. George J. Nelbach, secretary of the Committee on Tuberculosis and Public Health of the State Charities Aid Association, said that he was detailed by his organization to come before the Committee and to present its attitude toward chiropractic laws. In 1920, when the legislature passed a law legalizing chiropractors, the State Charities Aid Association had made an investigation of the claims of chiropractors, and, as a result, had decided to adopt an attitude of active opposition to the legal recognition of chiropractors on the ground that they were a menace to public health.

Mr. Nelbach said that his organization was spending much time and money in order to instruct the people about scientific medicine, and that much of their efforts would be wasted if the people could get efficient treatment from unqualified persons.

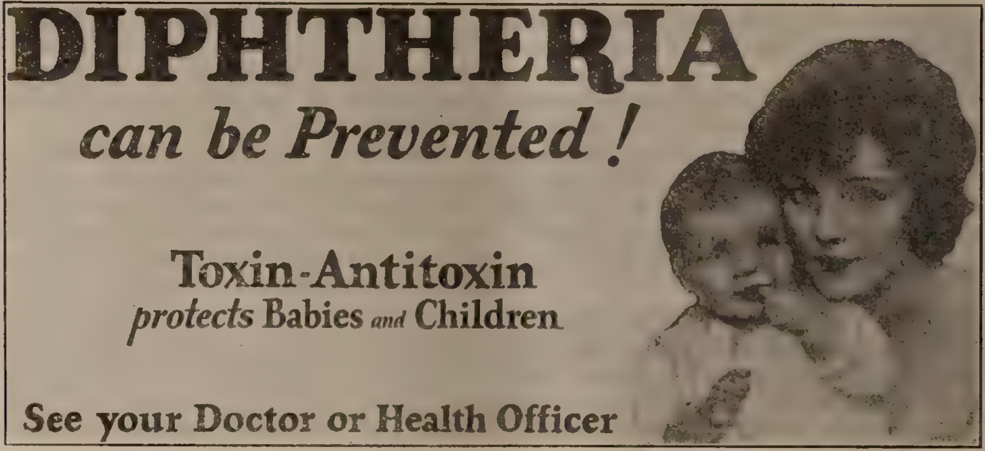
Dr. James E. Sadlier, of Poughkeepsie, president-elect of the Medical Society of the State of

New York, said that early diagnosis was essential in treating many diseases, such as cancer and tuberculosis. To make the diagnosis early required years of scientific study. To delay diagnosis meant ultimate death. He had seen many persons whose diseases became incurable because of a delay in diagnosis. Chiropractors could not make early diagnoses—no one can without long study under expert teachers.

Asked concerning the value of a knowledge of chiropractic in addition to medical knowledge and skill, Dr. Sadlier said that he had never heard that such a knowledge was ever of any value to a physician in diagnosis or treatment.

Miss Sarah Ahearn, a detective from the Police Headquarters, New York City, was the last witness. She gave testimony concerning her visits to chiropractors in order to take treatments for pretended diseases, and as a result the District Attorney had served summons on twenty-five chiropractors for violating the laws forbidding the practice of medicine without a license. She said that the chiropractors made diagnoses of her condition, took money for treatments, and said they could help her provided she paid in advance for courses of treatment. The chiropractors were careful about their promises to cure her completely, because they were aware that detectives were on their trail, and to fail to cure after a promise to do so constituted a breach of contract.

The Committee announced that it would begin to hold executive sessions during the week beginning February 7 in order to discuss the evidence and to formulate its report, which must be made before March first.


DIPHTHERIA
can be Prevented!
Toxin-Antitoxin
protects Babies and Children
See your Doctor or Health Officer

OUTDOOR PANEL POSTER

Utilizing the best methods of modern publicity, the cooperative State-wide Diphtheria Prevention Campaign, which has just completed its first year in New York State, outside of New York City, is sending out a diphtheria prevention message on the outdoor poster panels throughout the state, in the form of the miniature reproduction given below.

The poster in attractive colors was specially prepared for this purpose and has received the approval of the Medical Society of the State of New York, through its representatives on the joint committee sponsoring the campaign.

This medium of reaching the parents of little children has been made possible through a generous gift on the part of the New York State Outdoor Advertising Association of free poster space throughout the state with no charge for the service of caring for and putting up the posters. The posters themselves are being utilized in various counties as the contribution of the Local Committees on Tuberculosis and Public Health of the State Charities Aid Association.

The showing of these posters will undoubtedly arouse still further interest in diphtheria prevention and will contribute to the steadily increasing number of children who become immunized.

THE COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations, whose appointment was announced on page 81 of this Journal for January 15, held its first meeting on the afternoon of January 27 in the Waldorf-Astoria Hotel. Those present were:

From the State Society: Drs. Cottis, Britt, Townsend, Farmer, Fisher, and Lawrence.

From the Committee on Tuberculosis and Public Health of the State Charities Aid Association, Mr. Folks, Dr. Farrand, Dr. Wisskotten, Mr. Nelbach, Dr. Munger substituting for Dr. Lindsley R. Williams, and Mr. Burritt, substituting for Mr. John A. Kingsbury.

Dr. Cottis was chosen permanent chairman of the Joint Committee, and Dr. Lawrence, secretary.

Mr. Homer Folks opened the conference by stating the desire of those representing the lay organizations to avoid overlapping of activities and misunderstandings in objects and methods.

Dr. Lawrence stated that it was the policy of the leaders of the Medical Society of the State of New York to confer with laymen and organizations which are willing to enter into conferences with the representatives of the medical profession.

Dr. Livingston Farrand said that the leaders in all successful public health activities had been physicians, but that these medical leaders had been far in advance of the ideas of the conservative rank and file of medical organizations.

Dr. Farrand described the situation in Tompkins County in regard to the County Health Unit and said that the County Medical Society had discussed the matter at its last meeting (see this Journal, November 15, 1926, page 953). While there may be a sufficient number of influential laymen and physicians in Tompkins County to persuade the Board of Supervisors to authorize a County Health Unit in the near future, yet the cause of public health in the County would advance more rapidly if time were taken now to inform the physicians regarding the proposed unit and to begin formal action with the endorsement of the County Medical Society.

After considerable friendly discussion of the misunderstandings that had occurred in the past, particularly over the subject of County Health Units, the Committee voted to appoint a sub-committee to study the question of organizing those Units and report back to the Joint Committee in regard to three points, namely: 1, the exact meaning of the present law covering Health Units; 2, the arguments pro and con; and 3, the best procedure to be used in establishing such Units, in case they appear to be desirable.

The Committee appointed consists of Dr. Farmer, chairman, Dr. Britt, Dr. Lawrence, Mr. Homer Folks, Mr. Nelbach and Dr. Williams.

It was decided that a meeting of the sub-committee should be held on the afternoon of February 9 in New York City, and that the Joint Committee should meet on February 24 in the Onondaga Hotel, Syracuse.

MEDICAL LEGISLATION

Very little that is news is developing in medical legislation. The bills which have been introduced are almost identical with those of last year. The optometrists seek permission to use the word "doctor" when followed by the words "of optometry." They seek to capitalize the title of doctor without qualifying themselves in such a way that they may be considered learned within the scientific meaning of the word.

Laws have been introduced modifying state aid to municipalities doing public health work, even to the largest cities. The season is too early to determine who their sponsors are and their definite intentions.

The Committee on Legislation of the State Medical Society sends out a weekly bulletin to the county committees. This will contain news of legislation as fast as it develops.

The members of the Public Health Committees of the Senate and Assembly are as follows:

Senate: Webb, Chairman, Dutchess; Baumes, Orange; Thayer, Franklin; Mastick, Westchester; Hickey, Erie; Wicks, Ulster; Carroll, Kings; Love, Kings; M. J. Kennedy, New York.

Assembly: Dr. Lattin, Chairman, Orleans; Esmond, Saratoga; Austin, Monroe; Lyon, Cayuga; Loomis, Delaware; Van Cleef, Seneca; Barnhardt, Erie; Trepamer, Clinton; Watson, Cattaraugus; Cline, Kings; Doyle, Kings; Grossman New York; Cantor, New York.

ROGER BACON'S ELIXIR OF LIFE

The newspapers have found an exceedingly human story in the account of the translation of the principal Latin work of Roger Bacon, by Dr. Robert Bell Burke, Professor of Latin in the University of Pennsylvania. Dr. Burke has translated Bacon's Opus Majus which was written on the invitation of Pope Clement in order to supply the head of the church with a compendium of the scientific knowledge of his day. The particular passages which have received notice in the daily press are those relative to the elixir of life, which was supposed to confer immortal youth upon its user.

Roger Bacon was born in England in the year 1214 and was highly educated in all branches of the knowledge of his time. He was a Churchman as were all the educated people of his time, and like some other scholars, possibly many, he knew all that was contained in the available books of his day. His greatness lay in the fact that he put their information to experimental test. He was the pioneer of modern research. He is credited with the invention of gunpowder in its modern form. He investigated the laws of light, and described the eye from actual dissections of the organ. He was far in advance of his time and was the close friend of the priest who afterward became Pope Clement, and encouraged his investigations and writings, but was imprisoned by Clement's successor as a dangerous subverter of the existing order of the world. He continued to write in an obscure form in which was concealed a cypher which was recently solved.

The New York *Herald Tribune* of February 1 contains extracts from Dr. Burke's translation of that part of the Opus Majus which deals with the elixir of youth. Bacon quotes Aristotle as saying: "God has prepared a means and a remedy for tempering the humors and preserving health and for acquiring many things with which to combat the ills of old age, and to retard them and to mitigate such evils, and has revealed these things to his saints and prophets. There is a medicine called the ineffable glory and treasure of philosophers which completely rectifies the whole human body."

Bacon says that the formula of the medicine was revealed to Adam and his sons, and then he goes on to quote clinical examples of its effects as recorded in the writings of the ancients. He quoted examples from Atephins and Pliny. A later writer, he said, told of a plowman who turned up a bottle filled with skysen, which renewed his youth and vigor. Another man was recorded as having found an oil which he rubbed over his whole body except the soles of his feet, and was renewed in his flesh excepting his soles which mortified so that he had to ride. He also quoted the example of another man who lived for several centuries because of a substance which he had prepared for a great king, but which the king wished him to try first on some ignorant person.

Having proved by clinical records that a life of centuries was possible, Bacon told of the formula of the elixir, which was described in the writings. This he said, was composed of: 1, that which is tempered to the fourth degree; 2, what swims in the sea; 3, what grows in the air; 4, what is cast up by the sea; 5, a plant of Judea; 6, what is found in the vitals of a long-lived animal; and 7, the two snakes which are the food of Tyrians and Ethiopians. Bacon then goes on at some length to show that the first ingredient is gold, the second, pearl, the third the flower called sea dew, the fourth ambergris, the fifth the aloe tone, the sixth a bone growing in a stag's heart.

Bacon says that the Tyrian snake is an excellent remedy for the corruptions of old age if it is eaten with things suitable for one's constitution and condition as is taught in the book of the regimen of the aged.

The Ethiopian snake is the dragon referred to by David in the Psalm which reads: "Thou hast given it as food to the tribes of the Ethiopians." Bacon then goes on to tell how hunters lure the dragons from their lairs, bridle and saddle them and ride them to exhaustion in order to make their flesh tender. "Those who use the flesh prolong life and sharpen their intellect beyond all conception; for no instruction that can be given by man can produce such wisdom as the eating of this flesh, as we have learned through men of proved reliability on whose word no doubt can be cast."

This is an example of Bacon's writings. He at least quoted the best histories attainable, which is the modern method. After all, Bacon could not be expected to experiment with every theory and prove every alleged fact of which he read. Concerning this point the New York *Sun* of February 2 says editorially:

"The wonder is not that he retained a few of the superstitious beliefs of his time, but that he rejected so many. He stood at the threshold of experimental science. He is said to have expended 2,000 pounds sterling in study and experiment; a sum enormous in a period when craftsmen of the highest skill were glad to work for four pence a day."

A comparison of the beliefs of Bacon's day with those of ours is made in an editorial in the New York *Herald Tribune* of February which says:

"Roger Bacon's formula for an elixir of life will seem humorous to an age which knows that pearls and Tyrian snakes are no aids to longevity; but it was only a day or two ago that our own Voronoff was urging his hopes for a race of supercentenarians supported by an adequate monkey population. An improved scientific equipment has enabled Voronoff to abandon Tyrian snakes in favor of the monkeys, but the objects seem to be the same. In the intervening space of seven hundred years we have done much; yet we are still near enough to him to want elixirs. We still regard our doctors as magicians, and try their remedies on 'the ignorant' and we would probably start monkey farms as cheerfully as Bacon's contemporaries might have started Tyrian snake houses in the same sort of faith."

A PLAGUE OF MICE

The newspapers during the month of January have carried news stories about a plague of mice in Kern County, California. The New York *Sun* of January 28 says that 30,000 acres of old lake bed, now dried up and devoted to grain, is overrun with mice which have exhausted the available food and are migrating in droves to new areas. Mr. S. E. Piper, government expert, said that three varieties of mice are found: 1, the white-footed mouse; 2, the ordinary house mouse; and 3, the big California meadow mouse, which is by far the worst pest of all.

The hordes of mice were first noticed about Thanksgiving time, and they appeared again in the middle of December and of January. In the meantime birds and animals of prey appeared in numbers and materially aided the farmers in destroying the pests.

The New York *Sun* of January 28 also explains the situation in an editorial entitled "Let nature do it." It says

"Stockmen and farmers of the West are organizing to oppose the Federal and State warfare on the coyote on the ground that it is one of the best friends of the desert dwellers. Experienced ranchmen in some parts of California declared that coyotes kept within bounds other pests that were more troublesome than coyotes ever were. If Kansas had not been so industrious in killing off the coyote it would not have had so many plagues of long-legged rabbits.

"The extermination of the coyote would permit the smaller vermin, rats, ground squirrels and rabbits, to develop into a serious menace. Whenever the number of coyotes is seriously diminished, plagues dangerous to mankind break out among the too numerous rodents.

"People are beginning to learn that nature, uninterfered with, maintains a balance of power, and that it is perilous to disturb that balance."

The sequence of events in Kern County may be readily seen. The drainage of the lake, the destruction of the natural refuge of birds and beasts of prey, an abundant supply of mouse food and a tremendous increase in the mouse population unhindered by its natural enemies, the over-population of mice, their migration, and finally the influx of their natural enemies which will restore a normal balance of wild life in the region—provided man is wise enough to let the birds and beasts fight out their own destinies.

This balance of life in nature is of special interest to physicians in view of the reported infection of rodents with the plague bacillus.

THE ROORBACK

Campaign lies are sometimes circulated for political purposes, and doctors have been known to be threatened with exposures of alleged indiscretions in order to influence their action in regard to patients, especially psychiatric cases. Doctors who are threatened with those stories may take courage from a decision recently given in England, that to circulate a malicious story constitutes libel.

The two sons of William E. Gladstone resented the action of a newspaper writer in printing alleged stories of Gladstone's immoral relations with women prominent in society and on the stage. There being no direct redress, the sons took the deliberate course of calling him a foul-mouthed liar and cur in public, thereby provoking him to sue the sons for libel. The court decided that the sons were entirely correct in applying the epithets.

The New York *Sun* of February 3 comments editorially on a bill introduced in Congress providing severe punishment for any one who circulates an attack on a candidate within a fortnight of election unless he first furnishes the candidate with a copy of the story.

Campaign lies and threats of vile implications against doctors are all of the mold. Any doctor who is threatened in that way will do well to accept the challenge boldly and openly, and then sue its instigator at once.

BOOK REVIEWS

Psychological Medicine. A Manual on Mental Diseases for Practitioners and Students. By Sir Maurice Craig, M.A., M.D., and Thomas Beaton, M.D. Fourth edition. Octavo of 437 pages, with 25 plates. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $6.00.

This book is the fourth edition of a work that first appeared in 1905. It is based on an experience gained from a large private and institutional practice. It is well balanced. There is an excellent summary of the elementary psychological principles underlying human behavior. The psychoses are treated quite exhaustively, and the anatomical changes as well as the psychopathological dynamics in these disorders are lucidly presented. The psychoneuroses are likewise treated in an authoritative manner. There is a chapter devoted to the relationship of insanity with the law. The book is a valuable one; it is highly recommended.

Irving J. Sands.

Studies in Intracranial, Physiology and Surgery. The Third Circulation, The Hypophysis, The Gliomas. By Harvey Cushing, M.D. Octavo of 146 pages, illustrated. London and New York, Oxford University Press, 1926. Paper, $3.25. (Oxford Medical Publications.)

The Cameron Prize Lectures, delivered by Dr. Cushing at the University of Edinburgh in 1925, are much more than highly scientific treatises concerning the subject matter involved.

They give the most recent authentic information about these highly important members of the intracranial family, facts which are in large part as essential to the well informed medical man of today as to him in specialized activities of this sphere.

They are written in the clear, concise, yet comprehensive style characteristic of this investigator and practical brain surgeon, who occupies a unique place in his chosen field.

This little group of lectures is a classic which could be used to distinct advantage in medical schools to clear up the misconceptions taught about the subjects covered, reclassifying the known facts and eliminating fallacies.

The author thus summarizes on the cerebro-spinal fluid —"The Third Circulation"—which gives a glimpse of the scope of this lecture: "Thus we have seen whence the cerebro-spinal fluid takes its origin, how it comes to make pathways for itself by percolating through the primitive mesenchyme, how these pathways which originate from cells of the neural crest become lined with a specialized mesothelial membrane, and how minute outlets for the absorption of the fluid into the large venous channels are formed—in short how this circulatory switch for a fluid peculiar to the ventricular and meningeal spaces comes into existence and how it communicates with the deeper parts of the brain by perivascular tubes of the pia-arachnoid."

In dealing with the physiology and pathology of the pituitary gland, Dr. Cushing refers to its inter-relation to the other ductless glands and the medical man who may be naturally endowed with investigative talents, could well ponder over this field for further effort after he reads the author's opinion that present day surgery of the hypophysis is practically in the "stone age" of its development! The third lecture on, "Intracranial Tumors and the Surgeon," covers practical phases of this subject by a master-workman who has no peer.

The valuable and practical observations set forth in these lectures have an added interest when it is recalled that the author is fourth in direct line of medical ancestry of distinction.

H. G. Dunhan.

Elements of Pathology. By Aller G. Ellis, M. Sc., M.D., Octavo of 544 pages, with 95 illustrations. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $5.00.

In this work an attempt has been made to crystallize out from the huge mass of information pertaining to pathology those simple fundamentals which are the old standbys in that science.

The writer endeavors to steer clear of all but well established facts in order that the beginner in this subject starts with a clear cut conception. Although the work is by no means complete, the purpose of the author has been well carried out. In fact, it has been done to such an extent that in some places the facts have been stripped of all embellishments remaining but skeletal in character.

To medical students the book should prove to be a valuable asset since the facts that it contains can be used as definite starting points from which broader viewpoints can be developed as they broaden their studies in pathology.

Max Lederer.

Rheumatism; Its Meaning and its Menace. By Lewellys F. Barker, M.D. and Norman B. Cole, M.D. 12mo. of 165 pages. New York, London, D. Appleton and Company, 1926. Cloth, $1.50.

This is one of a series of books on health subjects written for the non-medical public. Rheumatic Fever is stated to be the greatest menace to the heart health of children and adolescents. The confusion associated with the name "Rheumatism" is explained and the term as denoting a single definite condition is discarded. Instead, the rheumatic diseases are discussed under the headings of acute rheumatic fever, chronic infectious arthritis, so-called primary chronic progressive polyarthritis, so-called primary hypertrophic osteo-arthritis and gout. From eighty to ninety-five per cent of heart trouble in young people is stated to be due to rheumatic fever.

The book will prove useful to the intelligent layman who wishes to acquire a general knowledge of these diseases.

W. E. McCollom.

A Manual of Proctology. By T. Chittenden Hill, Ph.B., M.D. Second edition, thoroughly revised, 12mo. of 294 pages, with 101 illustrations. Philadelphia and New York, Lea and Febiger, 1926. Cloth, $3.50.

This book appears as a second edition revised by the author with an additional chapter by Dr. R. C. Coffey on "The Radical Operation for Cancer of the Rectum."

Many of the present day writers of text-books on rectal disease seem to attempt to make large books. To do so, they often insert illogical and irrelevant opinions of others which require additional pages. All of these insertions become tiresome to the reader, and also detract from the personal responsibility of the author. This book has none of these objectionable features.

Dr. Hill's book is the epitome of what a manual on proctology should be. He has described, in a clear, concise and pleasing manner, all of his subjects. The book can be accepted as an excellent treatise on the different forms of rectal diseases most commonly seen by the general practitioner.

Martin L. Bodkin.

The Surgical Treatment of Goiter. By Willard Bartlett, A.B., A.M., M.D. Octavo of 365 pages, with 130 illustrations. St. Louis, The C. V. Mosby Company, 1926. Cloth, $8.50.

The object of this monograph is to present a study in detail of the problems involved in the surgical treatment of goiter. This naturally embraces a thorough knowledge of the disease, a proper estimation of the individual patient, and the logical indication for surgical intervention, and, of course, an intelligent selection of the proper operation suitable to the particular patient.

The clinical side of the disease, however, is constantly kept in view, as is evidenced by the addition of a chapter on the heart in goiter, by Dr. Samuel J. Grant; by the chapter on unusual manifestations in goiter, which are essentially manifestations of disturbed functions of the thyroid gland; as is further brought out by the emphasis of the importance of aftercare of the patient, which is in line with the thoughts of the author that the thyroid is only a part of a complex condition. Particularly significant is the statement, that:

"The ultimate success in this branch of surgery is attainable only when one contemplates in every thyroid patient the individual as a whole rather than concentrates on the goiter alone, though it may for the moment obtrude itself as the most conspicuous of the many interdependent components now thoroughly out of balance."

One is impressed with the thoroughness of the author in the preparation of this work, his broad concept of the disease, and his high regard for the opinions of others, and especially the respectful and almost reverent tone in which he so frequently refers to the pioneers in this field of surgery. Herman Shann.

Enzymes, Properties, Distribution, Methods and Applications. By Selman A. Waksman, M.S., Ph.D. and Wilburt C. Davidson, M.A., M.D. Octavo of 364 pages. Baltimore, Williams & Wilkins Co., 1926. Cloth, $5.50.

In this book of 350 pages the authors have reviewed very thoroughly the literature of enzymes of which they enumerate about sixty, and have arranged the facts thus obtained in a connected and readable form. They state that they have consulted over two thousand references mostly in the original papers. This represents an immense amount of work. Not only so, but they include in their Bibliography, 1,323 references to original papers, which are referred to by number throughout the text, as authority for nearly every statement made.

The book is thus an authoritative treatise on practically all known facts relative to the occurrence, methods of isolation or preparation, properties and action, products and uses of the enzymes.

The subject matter is arranged under four general headings. The first four chapters, 57 pages, dealing with the General Properties of Enzymes. The second group of three chapters, 60 pages, on the Distribution of Enzymes. The third group of seven chapters, 130 pages, deals with the Methods for the Preparation and Study of Enzymes. The fourth heading is the Practical Uses of the Enzymes in the arts.

This is followed by a bibliography of references to original sources of information, and a very complete index. As a work of reference on the subject of the enzymes it is an admirable book, and it is to be highly recommended. E. H. B.

Why Infections? In Teeth, Tonsils and Other Organs. By Nicholas Kopeloff, Ph.D., 12mo. of 182 pages 16 illustrations. New York and London, Alfred A. Knopf, 1926.

The author tackles a problem similar to "Why We Behave Like Human Beings." Just why we have infections in the teeth, tonsils, and other organs remained unexplained at the end of the book, just as the reason we behave like human beings is unanswered at the end of the book by Dorsey.

The doctor discusses disease to the tune of nine chapters as sort of a stepping stone to chapter ten. He lays particular stress on the so-called focal infections, as he goes along. On arriving at the tenth chapter the reason for the book being written will be found, and from there on the doctor shows his intentions to the reader. If a reader is bored by the first nine chapters, he may skip them, and turn to chapter ten, and begin.

The book was written to call attention to people that the wholesale eradication of infected or suspected infected organs for the cure of a great many diseases of which the etiology is unknown has not led to much benefit to mankind. Each subject is discussed cautiously, and there is no element in this book of dogma. You ask to be shown, and you are told just how much can be promised. As most doctors have learned, who really analyse their cases properly, the theory of focal infection is much overdone. It is the exceptional patient that is cured by operations on so-called focally infected organs.

If another edition of this book is published, it is to be hoped that the early part of the book will be much abridged, and the latter part extended.

J. Arthur Buchanan.

Plastic Surgery of the Head, Face and Neck. By H. Lyons Hunt, M.D., L.R.C.S. Octavo of 404 pages, illustrated with 342 engravings and 10 colored plates. Philadelphia and New York, Lea and Febiger, 1926. Cloth, $7.00.

This four hundred page monograph shows what can be accomplished when one, who is master of his subject, endeavors in a careful and conscientious way to give his experience for the benefit of others.

He analyzes the skin for color, texture, moisture and age; makes preliminary plaster models when necessary; uses an oblique incision in a line of clevage; avoids infection by careful operative technique and complete hemostasis; removes sutures early and puts powdered turtle bile on the wound and exposes it to sunlight and fresh air.

In 7000 operations there were only two cases where the wound failed to heal by first intention.

The chapter on Local Anaesthesia is by S. R. Maxeiner and Physiotherapy in Superficial Surgery of the Face by Sinclair Tousey. All the chapters are good but the one on Keloids is especially interesting and valuable.

Any surgeon will profit by reading this book before performing any plastic operation on the head, face or neck. Henry F. Graham.

A Textbook of the Practice of Medicine. By various authors. Edited by Frederick W. Price, M.D. Second edition. Octavo of 1828 pages. London and New York, Oxford University Press, 1926. Cloth, $10.00. (Oxford Medical Publications.)

One's interest in this work is stimulated by its dedication to that classical writer, Sir Clifford Allbutt and by its handy size and compactness. The use of a thin paper makes the volume comparatively small for the large number of subjects covered in the eighteen hundred and twenty-eight pages.

Among the contributors are some of the best known men of England, as W. Langdon Brown, Sir Thomas Horder, Theodore Thompson and James Collier. The style, in general, is pleasing as is the case with many of the British writers. Generally a whole section is allotted to one author or to two writing in collaboration.

The work is extensive in scope and covers in addition to Internal Medicine, the fields of Neurology, Psychological Medicine, Diseases of the Skin and Tropical Diseases. The inclusion of these subjects makes the book very handy for reference.

In reading various sections, one discovers nothing with which to find fault. It is undoubtedly one of the best single volumes on the Practice of Medicine.

W. E. McC.

OUR NEIGHBORS

HEALTH MERGERS

The subject of group treatment in distinction to private practice is discussed in the following editorial from the January issue of *California and Western Medicine:*

"The extensive creation of mergers, financial, industrial commercial and what-not, are among the most significant movements of recent years. The chief new or recent feature of the idea is the name merger, which suggests that a name may have something to do with the odor of a rose.

"Another recent feature of the merger movement is its increasing application to matters of health, sociology, relief, charity, thereby introducing elements calculated to influence the very foundation of society and affect profoundly every individual.

"The philosophy of mergers is the same, whatever the field of endeavor, and they are therefore worthy of serious study, particularly when they invade established human-service occupations.

"The heart of any merger is centralized, more or less autocratic control, and while this may, and doubtless often does, insure advantages in material matters, it may not follow that it will be equally efficacious in dealing with those moral, social and charitable attributes which are inherent in individuals, which are in a state of flux and may not be measured in material terms.

"Unquestionably, well conceived and intelligently conducted mergers, whatever the field covered, may reduce waste, duplication of effort, and thereby increase the purchasing power of the dollar, stabilize and standardize production and change competition between individuals to group competition, or even replace competition by price-fixing methods. There are examples all about us in mergers of many classes and sizes that supply ample evidence of this fact, encouraging so far. However, when mergers enter the field of sociology, health, and other human services heretofore peculiarly personal, other and vastly more difficult problems arise. It may be possible even here to save dollars by standardizing the treatment of frailties, infirmities and shortcomings of mankind en masse and serving them through mergers also standardized; but what of the individual? Can we succeed in pouring into a common hopper operated by organized effort, service, and the blessed spirit of service, that is an inherent individualized quality of man, and grinding out stereotyped relief to meet the highly individual needs of others with safety?

"'Health' mergers, to be more specific, are prominently to the fore, and they are proceeding apace from merger to supermerger—at least on paper and in the intent of sponsors. Extensively mergerized health, medical, social, and spiritual welfare, doubtless would simplify giving and serving and insure at least a steady income and regular hours, to those who serve. It would reduce the matter of support to paying taxes or writing a check to the merger periodically—but would it not also tend to simplify life for the supplicants and beneficiaries? In this respect the results of the 'dole' and the consequences of mergerized medicine in certain countries is illuminating, and there are interesting lessons closer home that may be studied with profit.

"It has been postulated and confirmed by experience that many human-service needs, the most crying ones, are too highly personal to be met by other than individual service, in the rendering of which both parties receive something that enriches life, encourages thrift, self-reliance, hope, faith, and charity. While these virtues are sublimated by individual contact even by groups with common feelings and purposes, they may not blend well in the mills of mergers, and we might do well to carefully study the subject before we endorse current trends too wholeheartedly."

COUNTY SOCIETY PROGRAMS AND ACTIVITIES

A County Society Calendar. The plan of "A Minimal Program for a County Society" discussed in an editorial in the December fifteenth issue of this Journal, is further discussed in the December issue of the Journal of the Michigan State Medical Society in an editorial entitled "A County Society Calendar." The editor, Dr. F. C. Warnshuis outlines a concrete program embodying the principal features of the minimal program. The editorial reads:

"County medical Societies by virtue of the position they occupy are obligated to conduct an extensive program of activity which directly affects the membership of the Societies and indirectly the community. In order that the obligation of each society may be met and accomplishment recorded it is recommended that societies consider the activities and plans of work herewith attached, which cover the activities in

(*Continued on page* 212, *Adv. xvi*)

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Constipation

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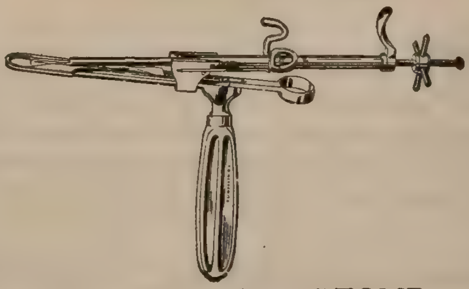

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COUNTY SOCIETY PROGRAMS AND ACTIVITIES

(*Continued from page* 210)

the scientific field, physical examinations, public health education, and social and non-scientific activities for a period of one year.

SCIENTIFIC SECTION

Meetings and Subjects by Month

December—Pneumonia.
January—Obstetrics and Gynecology.
February—Infectious Diseases.
March—Fractures.
April—Pediatrics.
May—Cardio-Penal Diseases.
June—Gastro-Intestinal Diseases.
July—Vacation.
August—Vacation.
September—The Year's Progress in Medicine, Surgery, Obstetrics, Gynecology, Infectious Diseases.
October—Therapeutics, Drugs, Light, Diathermy, etc.
November—Eye, Ear, Nose and Throat Infections.

PHYSICAL EXAMINATION SECTION

January—Physical Examination month for all members.

SECTION IN PUBLIC HEALTH EDUCATION

1. Lectures in High Schools

January—Health Habits.
February—Our Daily Foods.
March—Pasteur.
April—Lister.
May—Accidents and First Aid. At Home and on Vacations.

2. Parent-Teacher Association and Women's Clubs.

December—
January—Vitamines and Nutrition.
February—Pasteur.
October—Mental and Physical Health Habits.

3. Luncheon Clubs

January—Science, Basic.
February—Comparative Investments in the Sciences and Relation to Progress.
March—The Individual Assets and Values.

SOCIAL AND INFORMAL ACTIVITIES FOR MEDICAL PROFESSIONS.

September or October—Smoke and Mixer.
July or August—Picnic. Featuring Golf, Baseball, Quoits, Swimming, etc., and Beefsteak Roasts.

FOR AND WITH OTHER PROFESSIONS

April—Ministers, Educators, Nurses, Social Workers. Subject—Problem Cases.
February—Meeting with the Bar Associations. Subject—Crime. Where the Law and Science co-ordinates.

BULLETIN OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS

Editorial Note.—The Bulletin of the Medical Society of the County of Kings for January, 1927, carries an article on the examination of persons in whom tuberculosis may be suspected—and the possibility of its presence must always be in the mind of the medical examiner. Yet no other disease is more frequently overlooked. Why? Probably the very triteness of the subject. However, the Medical Society of the County of Kings is using its monthly Bulletin to remind the members concerning the common symptoms and signs which suggest the disease. The article follows.

PERIODIC MEDICAL EXAMINATIONS OF APPARENTLY HEALTHY PERSONS

PRACTICE PRECLINICAL MEDICINE IN YOUR OFFICE

Pretuberculous conditions belong in the field of every day medical practice. Your patients need your guidance in health. Periodic physical examinations, preventive measures, prescribed hygiene, postponed disability help to eliminate tuberculosis.

Tuberculosis has a particular relation to the periodic examination of apparently healthy persons.

The reduction of the tuberculosis morbidity and mortality has been due in the last analysis, to early recognition through adequate physical examination of signs of disease in patients coming under medical care—with a presenting symptom.

The Next Step.—If all we know about the disease is applied, if it be true that all infection occurs in early life, if we all have it, if proper adjustment to environment (job, play, sleep, exercise, diet, fresh air) will keep our tuberculosis from developing—then the next step in health guidance and hygienic regimen based upon knowledge gained as a result of a real physical examination plus periodic re-examinations.

The Symptoms—Pre-protuberculous.—Be especially alert to sense the importance of persistent tired feeling," "lack-of-pep," "frequent colds," "more or less constant indigestion," slight losses of weight or persisting underweight, increasing nervousness or irritability of disposition, enduring hoarseness or huskiness of voice,—whenever these occur, make still more searching your examination of the lungs and if the result is negative, have it confirmed by radiogram—for these are leads to the early recognition of Pulmonic Infiltration.

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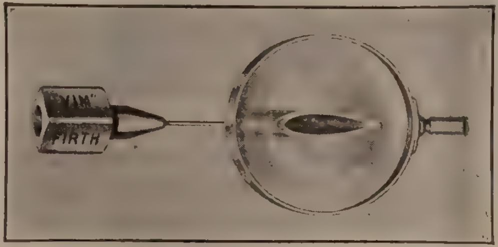

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These occurrences call for at least a suspicion of the presence of Latent Tuberculosis and should not be passed over until proven innocent. And right here—it is remarkable what the X-ray will pick up where a most expert physical examination will fail to reveal anything.

Look upon every case with a past history of—pleurisy (dry or wet), blood spitting (teaspoonful or more), or ischiorectal abscess with special suspicion.

Be loath to satisfy yourself with a diagnosis of *"Neurasthenia"*—dig deeper— there is invariably some underlying cause.

The Symptoms—Clinical Tuberculosis.—Every physician knows them—those of the so-called incipient stage and worse. The layman knows that long continued "bronchitis" is possibly tuberculosis. And that spitting blood, afternoon fever, night sweats, loss of weight, fatigue, etc., spells consumption. For such, preventive medicine is past—curative medicine may be of value—palliative medicine perhaps all that can be offered. Were every patient of every doctor in Brooklyn regularly examined could such cases develop among the examinees? And what would our town's tuberculosis rate be?

The Physical Signs.—All physical signs are important,—especially the auscultatory,—more especially the recognition of fine and moderately coarse moist rales in the upper half of the chest, —most especially the method of eliciting these rales by use of the cough followed by deep inspiration and expiration.

The Laboratory.—Let us not forget it. An expectoration lasting four weeks or more—resulting perhaps only from a slight "clearing of the throat" in the morning—may harbor clumps of acid-fast bacilli. But especially bear in mind that one Negative Report (and even ten Negative Reports) does not rule out the possible presence of Clinical Pulmonary Tuberculosis.

The Next Step In Service.—Examine all patients thoroughly: utilize all existing facilities, educational, recreational, occupational, clinical that Brooklyn affords. They exist for all classes —the public health committee will help you find them if you do not know them.

The Library Is Tuberculosis Wise.—The last word in preventive medicine has not been written but the printed page for laymen, for doctors, for nurses, for health workers is on the library shelves for you and your patients to read. Have you looked up recently the writings of Krause, Lawrason Brown, Bray, Miller, Fowler, Guy, Jacobs, Knopf, Fishberg, Myers, Kinghorn and Walters.

UNUSUAL MANIFESTATIONS OF MALARIA

That the diagnosis of malaria covers a multitude of sins of ommission is well known. It is not so common for malaria to be called by a wrong name. The January issue of the *Journal of the Medical Association* of Georgia contains the following article, describing malaria conditions which are mistaken for other diseases.

"That the malaria parasite is capable of causing a definite succession of characteristic symptoms is so well known as to need no elaboration. That the parasite often is the principal factor in causing atypical symptoms, as for example hemorrhagic or blackwater fever, is less well known except to those practitioners who live in malarial sections. That the parasite may produce many symptoms which masquerade under the guise of many types of other well known diseases has perhaps not been as much emphasized as other features of the great malarial problem.

"Because of the necessity of correct diagnosis as a guide to treatment, it is important to know in how unusual ways malaria may manifest itself.

"According to Manson, the following actual erroneous diagnoses have been made on purely clinical grounds without examination of the blood, but subsequently proven to be manifestations of infection with aestivo-autumnal (sub-tertian) parasites:

"(1) Cerebral forms: Sunstroke or heat stroke, mental derangement, hysteria, alcoholism, aphasia, epilepsy and meningitis.

"(2) Abdominal forms: Dysentery-amebic or bacillary, intestinal obstruction, appendicitis, bilary colic, cholecystitis, hemorrhagic pancreatitis, liver abscess.

"(3) Pulmonary forms: (Malarial pyrexia with pulmonary congestion and myocarditis.) Bronchitis, pneumonia, valvular heart disease.

"(4) Cases with cutaneous petechia have been mistaken for measles, endocarditis and purpura.

"(5) Icteric cases have been confused with obstructive jaundice.

"(6) Cachectic cases have been diagnosed acute nephritis, pernicious anemia or tuberculosis.

"(7) Edematous forms: A general edema may be the only outstanding sign in heavy subtertian infections.

"The surgeon as well as the internist has need to bear in mind abdominal forms of malaria. Thus, Deaderick has emphasized the importance of differentiating these types from the so-called surgical belly and reports a case of tertian malaria simulating appendicitis.

"The relation of malarial infection to insanity is of decided interest. A. T. W. Forrester has reported in the *London Lancet* interesting figures concerning this subject. He writes that in Macedonia, malaria was recorded as far and away the largest factor in the causation of mental diseases among British troops. He separates the cases into two groups: In the first group were placed the cases of insanity associated with a malarial attack itself; and in the second group those occurring as the result of repeated attacks."

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WHAT A FULL-TIME SECRETARY COULD DO

The February issue of the *Colorado Medicine,* the organ of the Colorado State Medical Society, has an article on what a full-time secretary could do for the Society. Problems differ in the several states and it is interesting to read what duties the Colorado Society would assign to its secretary. The article is as follows:

"What could a full-time executive secretary do besides the duties already required of our present secretary, which would improve our organization and make membership of more value to the individual?

"Many State Societies have undertaken measures which this one has not considered practicable because no one officer can give the necessary time to the administrative features. Several movements which could be inaugurated may be mentioned:

MEDICAL DEFENSE

"This is furnished by a number of State Societies, with plans varying from simple investigation of the merits of an active or threatening suit and provision for legal defense only, to the more comprehensive inclusion of full indemnity, covering the same grounds as the usual liability insurance policy. It works well in some states, not so well in others. One or two have undertaken it and later dropped it.

COLLECTION AGENCY, CREDIT RATING BUREAU OR BOTH

"A plan for recording of delinquent debtors by a centralized bureau might eventuate as a valuable clearing house through which chronic dead-beats would be segregated from the simply unfortunate, with resulting protection to the doctor against the former and deserved consideration for the latter. If properly conducted with those two objectives, many of our members feel the plan would be desirable. Whether a collection agency in connection would be appropriate is another question—at least some special arrangement with an independent collection agency might be made on a state-wide plan which through numbers would reduce the commission percentage."

COLORADO MEDICINE

"An executive secretary of sufficient caliber should perhaps take over the business management of *Colorado Medicine* and be able to greatly increase the amount of advertising, as well as relieve the Editor of mechanical and other details which tend to detract from the quality of his strictly editorial work (present incumbent excepted) — a 'business editor,' who should strive to make the journal as nearly as possible, if not quite, pay its own way.

ORGANIZATION IN CONSTITUENT SOCIETIES

"It goes without saying that only a man familiar with medical problems and procedures, or capable of familiarizing himself with them and of understanding the idiosyncracies of doctors, should be selected for the position. He could then be trusted to visit the various (in Colorado, scattered) constituent societies at more or less regular intervals, arranging for special meetings, providing special programs, keeping them in touch with organization problems and undertakings (e. g. periodic health examinations), and in other ways arousing their interest. If a man is paid to do certain work, he is apt to do it. If it is left to volunteers or committees who are actuated only by devotion to the undertaking or a sense of duty, that devotion may soon become luke-warm and the sense of duty be satisfied within a few initial efforts.

"Other opportunities of the Secretary to enhance the good of our Society, depending upon his initiative and capabilities, would undoubtedly present themselves."

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For further particulars, see their announcement on page 11. Adv.

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PHYSIOTHERAPY—ENGELN X-RAY EQUIPMENT

Announcement of the Engeln X-ray Equipment appears on page iii of this issue. Write for their descriptive booklet which, in an interesting, readable style, explains the many important and valuable features of their new X-ray unit. See advertising page iii. Adv.

Syracuse, N. Y., February 15, 1927.

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ACCIDENTAL HEMORRHAGE. WITH A REPORT OF 34 CASES*

By GEORGE L. BRODHEAD, M.D., NEW YORK CITY

DEFINITION:—When we speak of accidental hemorrhage, we refer to bleeding, externally or internally, which occurs during the last three or four months of pregnancy and which is caused by the premature separation of a normally implanted placenta.

Holmes,[1] in 1901, published his report of 200 cases of accidental hemorrhage collected from the literature and described the condition to which he gave the name "Ablatio Placentae" as follows: When the placenta is situated above that part of the uterus which must dilate to permit the egress of the fetus and when the placenta is partially or wholly detached in pregnancy or labor before the second stage—a condition of premature detachment obtains.

De Lee[2] prefers to use the term "Abruptio Placentae." There are many cases, naturally, which are on the border line between accidental hemorrhage and lateral placenta previa.

Variety and Frequency.—The hemorrhage may be entirely external, internal (concealed), or there may be bleeding both externally and internally. The amount of blood loss may be slight—moderately large—or the hemorrhage may be excessive and the patient quickly exsanguinated. In a large percentage of cases, the bleeding is entirely or almost entirely external. Goodell[3] in his paper published in 1870, gave the following classification of concealed hemorrhage:

a. The blood accumulates behind the placenta.

b. Blood escapes between the membranes and the uterine wall.

c. Blood forces its way into the amniotic sac.

d. Blood collects in the uterus when the presenting part blocks all escape.

In regard to frequency of the condition: Holmes estimated, on the basis of his figures and the statistics of the Chicago Lying-in Hospital, that accidental hemorrhage of pathological importance (slight amount of bleeding) occurred about once in 200 cases, while hemorrhage of clinical importance (moderate and large amount of blood loss) occurred once in 500 cases. At the Harlem Hospital we have collected 34 cases of severe hemorrhage in a total of 16,500 cases, giving a ratio of about 1:485. In 1897 the author[4] published a paper on accidental hemorrhage in which he stated that in 5,900 cases at the Sloane Hospital, there were 57 mild cases, giving a frequency of 1:100. This series probably included many cases in which the bleeding was very slight, and of small clinical interest. With reference to absolutely concealed hemorrhage the total number reported by Holmes (including those cases reported by Goodell[3]) was 113. Of 306 cases reported by Goodell and Holmes, 193 showed external hemorrhage, or 63 per cent. In our series of 34 cases, there was no case of absolute concealment, although in 10 patients there was extensive concealed hemorrhage. Adding our series of 34 cases to the 306 cases reported by Goodell and Holmes, we find that external hemorrhage was present in 67 per cent of the cases. In our series the frequency of accidental hemorrhage in primiparae was 21 per cent, corresponding closely with Holmes' figures of 19.2 per cent.

Period of Gestation when Hemorrhage Occurs.

TABLE No. 1

Period of Gestation

6½ Months	0
7-7½ "	3
7½-8 "	5
8-8½ "	8
8½-9 "	15
Unknown	3
Total	34

Parity

Primiparae	7
Multiparae	26
Unknown	1
Total	34

Note: Seventeen of the multiparae had been pregnant five times or more, and of these eight had been pregnant from eight to eleven times.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

This table gives the period of gestation in our cases when bleeding began. In 74 per cent hemorrhage took place during the last month of pregnancy—in 48.5 per cent during the last two weeks. Goodell quoted practically the same frequency, 50.5 per cent of bleeding at term, while Holmes quoted 33 per cent. In placenta previa the hemorrhage appears earlier in pregnancy, for while we find that in practically 50 per cent of patients accidental hemorrhage appears at or near term, in the series of 165 cases of placenta previa which have been collected by Langrock and the author,[8] only 35 per cent gave the first evidence of bleeding between 8½-9 months.

Etiology, Pathology and Symptoms.

Among the predisposing and exciting causes of accidental hemorrhage we find toxemia of pregnancy, endometritis, blows, falls, sudden shock, a severe attack of coughing or vomiting, short cord, et cetera.

Holmes[1] believes that endometritis is the most frequent cause, as accidental hemorrhage occurs in multiparae in practically 80 per cent of all cases. In a series of 200 cases reported by Holmes[1], 67 per cent gave a history of some accidental cause.

Toxemia of pregnancy is very frequently associated with the condition and, as we all know, is undoubtedly one of the chief causes. Williams[5] states that it is now recognized that in many of the severe cases the characteristic lesion occurs in the uterus which seems to explain not only the mode of origin of the separation, but also the failure of the organ to contract after being emptied. The uterus takes on a bluish, purplish, copper coloration and resembles an ovarian cyst with a twisted pedicle. The process may involve the tubes, ovaries and broad ligaments which are engorged with blood. In some there is extensive intramuscular hemorrhage which has so dissociated the muscular fibres as to destroy their contractible properties. Couvelaire[7] in 1911 designated the condition which has just been described, as uteroplacental apoplexy, of which Portes was able to collect 73 cases.

The symptoms of ablatio placentae are, bleeding and pain, either or both of which may be present. The blood may collect between the placenta and the uterine wall, causing pain and a moderate elevation of the uterus at the placenta site, or the blood may escape into the amniotic sac and remain concealed there, or, the blood may pass from the placenta site downward between the membranes and the uterine wall and thence through the cervix, the amount of blood varying from a slight quantity to an extremely severe hemorrhage. Associated with this external bleeding there may also be a variable amount of concealed hemorrhage. Instances of wholly concealed hemorrhage are very rare, as we have already stated earlier in the paper, but many of the severe cases have both concealed and visible bleeding. When a considerable amount of blood is retained in the uterine cavity, the uterine wall becomes tense, hard, and tender, and it is no longer possible to palpate the fetus or to hear the fetal heart. It is worthy of note that the degree of shock in some of these cases is out of all proportion to the amount of blood loss, due, no doubt, to the overdistention and hypertonicity of the uterus.

The Prognosis and Mortality.

In the mild cases the prognosis is usually good, but in the really severe cases, the mortality for mother and child is very high, and must vary to a great extent depending upon the amount of blood loss, the amount of cervical dilation, the environment of the patient, and the promptness with which appropriate treatment can be carried out. Statistically it is difficult to give figures which can be compared with others for it is impossible to know in many cases, even approximately, the amount of blood which has been lost. Again, as we know, patients react very differently to the same amount of blood loss. Even though the life of the woman may be spared, severe blood loss weakens the patient and so lowers her vitality that morbidity, as well as mortality, must be taken into consideration.

Holmes[1] gives the maternal mortality in his 200 cases as 32.2 per cent. Goodell[3] quotes 50.9 per cent, Quigley[6] gives 80 per cent in severe cases, while in our series of 34 cases 9 women died, giving a mortality of 26.4 per cent.

The fetal mortality is very high, for prematurity and the amount of placental separation are vital factors. Goodell quotes 94.4 per cent, Holmes 85.8 per cent, while our series shows 85.3 per cent. In our 34 cases there were 27 still births, one baby, a monster, lived five minutes, one died in utero, the mother being undelivered, making a total of 29. Of the 5 babies born alive, and which were discharged in good condition from the hospital, 3 were full term, and 2 were at 8 months. The gross fetal mortality in the series is 85.3 per cent. In at least 13 patients, pregnancy had not proceeded beyond the eighth month, and maceration was present in at least 7 of the babies.

Treatment.

The mild cases in which slight bleeding occurs during pregnancy should be put to bed and carefully observed. If the bleeding continues, a modified de Ribes bag should be introduced, followed by forceps or version if necessary. In some cases we have used pituitary extract in doses of 2—3 minims with great advantage. De Lee[2] states that accidental hemorrhage is the only condition in which he uses hypophysin before the uterus has been emptied. If bleeding occurs during the first stage of labor, a large size de Ribes bag should be introduced, delivery being completed by forceps or version. We agree with Holmes[1] that, "the safest course is to protect the membranes until labor may be expedited." He believes that to keep the membranes intact is to retain intrauterine pressure. We also agree with Holmes that vaginal packing has no value which the hydrostatic bag does not possess and therefore should be discarded for the bag.

When a severe external or internal hemorrhage has occurred before labor, or in the first stage of labor, when the cervix is 1—2 fingers dilated, we have a choice of two methods of treatment—Cesarean section or the use of the de Ribes bag followed by forceps, version, or craniotomy. We are inclined to agree with Williams[5] that in these severe cases with little or no dilation and especially in primiparae, Cesarean section is the best procedure. If for any reason, section can not be done, the use of the de Ribes bag is strongly advised.

When the cervix is so well dilated that full dilation can be easily secured by slight manual dilation, this should be done and the delivery completed by forceps or version.

We are convinced that prompt Cesarean will save many women who would be lost by any other plan of treatment. Williams believes that Cesarean is the more justifiable because he maintains that when the uterine wall is infiltrated with blood and there are petechial areas under the peritoneum, hysterectomy is indicated. De Lee[2] also states that if hemorrhage does not immediately cease upon removal of the placenta; if the uterus remains flabby even with ergot and pituitin; and if there has been much manipulation, bagging, etc., a porro operation is indicated.

With reference to hysterectomy for the condition of socalled uteroplacental apoplexy, we do not agree that it is necessary to remove the uterus. Unfortunately in the one case in our series which showed the musculature of the uterus markedly hemorrhagic, the woman was admitted to the hospital in shock, having had a large hemorrhage at home and died on the table as the Cesarean wound was being closed. In this case, with or without hysterectomy the patient was doomed.

Recently, however, the writer saw a patient in consultation with Dr. E. G. Langrock of this city, and Cesarean was advised for concealed hemorrhage in a primipara with undilated cervix. The uterus showed the typical clinical picture described by Couvelaire, but the uterus was saved and the patient made a good recovery. Hysterectomy may be necessary where the uterus relaxes and bleeding continues in spite of packing. After the uterus has been emptied, whether by Cesarean or otherwise, we make routine use of the iodoform gauze uterine tampon, believing that there will be less blood loss following delivery. One c.c. of pituitin is given in every case also as a routine measure.

When hemorrhage has occurred in any pregnant woman, the patient's blood should be examined and typed, in order to be prepared for transfusion. At the present time we are transfusing more and more frequently with excellent results.

We have collected from the 16,500 records of the past 11 years at the Harlem Hospital, 34 cases of severe accidental hemorrhage, which gives us a relative frequency of 1 in 485 cases. The fact must be kept in mind that our hospital is a free city institution, where patients are frequently admitted as they are about to depart this life, and when it is too late for us to be of any help. The statistics of private cases, especially when the patients have had the advantage of confinement in a hospital, should show very much better results. A study of our ward cases will show that many of the patients were in poor condition from loss of blood, which had continued for hours and in many cases days, before admission to the hospital. We are convinced that had these women been treated promptly immediately after the initial hemorrhage, the figures would be very different.

Cesarean Section.

Section was performed in 8 cases, the operation being done as a primary procedure in 5 cases and as a secondary procedure in 3 cases. In the five primary sections, one woman died on the operating table. The patient was admitted to the hospital in shock, with a history of an extensive hemorrhage at home. The musculature of the uterus was markedly hemorrhagic—and the woman died just as the wound had been closed.

In the secondary sections 2 women died. In these cases bags were used, but the patients grew steadily worse. One woman died 7 hours after section of shock, with no further bleeding, the other died of sepsis 4 days after operation. Earlier section might have yielded better results. The mortality in the 8 cases is 37.5 per cent, but in at least one woman the situation was almost hopeless from the start.

Version.

This operation was performed in 10 cases, with 4 maternal deaths=40 per cent. All of the infants were still born. Four were macerated.

Breech Extraction and Spontaneous Delivery.

There were 8 of these cases, with no maternal mortality—but 100 per cent fetal mortality. One of these patients was nearly exsanguinated in the second stage—and two showed extensive concealed hemorrhage.

Total maternal mortality in the 33 cases which received treatment was 24.2 per cent. As we have already stated, prompt treatment would no doubt have saved a number of lives, and greatly reduced the high mortality.

The method of delivery in our 34 cases is shown in Table No. 2.

TABLE No. 2
METHOD OF DELIVERY

Bag Introduction and Breech Extraction	4
Bag Introduction and Cesarean	3
Bag Introduction and Forceps	2
Bag Introduction and Spontaneous	2
Bag Introduction and Version	2
Cesarean Section (Abdominal)	5
Cesarean Section (Vaginal)	1
Forceps	0
Manual Dilation and Version	1
Normal	4
Ruptured Membranes, Pituitrin-Normal	1
Ruptured Membranes, Bag-Normal	1
Version (One Hick's)	6
Version and Craniotomy	1
Undelivered	1
Total	34

TABLE No. 3
(SUMMARY OF TABLE No. 2)

Bag Introduction		13
Breech Extraction		4
Normal		4
Cesarean Section	Abdominal	8
	Vaginal	1
Forceps		2
Version		9
Version and Craniotomy		1
Undelivered		1

Maternal Mortality.

There were, in the series, nine maternal deaths, of which a brief history will now be given:

Case 1. Mrs. D., a primipara, had been bleeding for nearly two hours before admission. The red cell count was 3,000,000, hemoglobin 65 per cent. A diagnosis of concealed hemorrhage was made, and a de Ribes bag was introduced. The uterus, however, became more distended, the patient grew weaker, and a Cesarean was performed. There was no further bleeding, but the woman died in shock, seven hours after the operation. Earlier section might have saved the patient's life.

Case 2. Mrs. G., a primipara, had been bleeding profusely before admission. A bag was introduced, but the uterus grew larger and Cesarean section was performed, the woman losing her life four days later of sepsis. Section immediately after admission might have given us a different result.

Case 3. Mrs. B., X. Gravida, was admitted to the hospital in shock. The history was given of a large hemorrhage at home, 6—8 hours before admission. The uterus was tense, the cervix admitted one finger, and labor had not begun. The woman's condition was desperate, but Cesarean was done and the uterine muscle was found to be markedly hemorrhagic. The wounds were rapidly closed, but the woman died on the table from hemorrhage and shock.

Case 4. Mrs. K. Unknown parity and period of gestation. The hospital record of the patient can not be located, and few details of treatment can be given. We know Podalic version and extraction were performed. The infant was a macerated still birth, and the patient died.

Case 5. Mrs. P., 3 Gravida, was admitted to the hospital in extremis, having had a profuse hemorrhage at home. The uterus was large and boggy, the cervix was thick and admitted 1½ fingers. While preparations were being made for Cesarean the patient died.

Case 6. Mrs. N., 8 Gravida, was pallid and pulseless on admission, the uterus was tense, tender and painful. The cervix was soft and three fingers dilated. After the cervix had been dilated manually, the membranes were ruptured and about 1500 c.c. of concealed blood escaped. The placenta was completely separated from its attachment to the uterus. Version and extraction were performed, but the woman died 2 hours later of shock and hemorrhage. In this case we believe that the result would have been the same even though Cesarean had been performed.

Case 7. Mrs. B., X Gravida, 7 months pregnant, was admitted to the hospital bleeding profusely. The woman was pale—pulse of poor quality—vertex above the brim. Cervix 1½ fingers dilated. Hick's version and extraction were performed and the uterus was packed, but the patient bled through the packing and died of hemorrhage 7 hours after admission to the hospital and 3 hours after delivery. The fetus weighing 3½ lb. was still born. Immediate section with or without hysterectomy might have saved the woman.

Case 8. Mrs. J., primipara, was admitted to the hospital at 11 P. M. The urine boiled solid and there were many casts of all varieties. The red cell count was 1,260,000, hemoglobin 30 per cent. The woman was stimulated, and at 11 A. M. of the following day a No. 4 de Ribes bag was introduced. At 4:30 P. M. the cervix was dilated slightly with the fingers and a low forceps operation was done. Two hours after delivery the patient died of hemorrhage. Although the woman's condition was very poor on admission, a Cesarean operation performed immediately might have saved her life.

Case 9. Mrs. R., 2 Gravida, was admitted to the hospital exsanguinated. The uterus was tense and painful, the cervix was almost fully dilated, the vertex presenting. The placenta had been completely separated and a large amount of concealed blood was present. Version and extraction were performed but the patient died 2 hours after admission. We had no reason to believe that Cesarean would have given a different result.

Fetal Mortality.

There were 27 still births, one baby lived five minutes, one died in utero, the mother being undelivered, making a total of 29.

Of the 5 babies born alive, and which were discharged in good condition from the hospital, 3 were full term, and 2 were at 8 months.

The gross fetal mortality in the series is 85.3%. In at least 13 patients pregnancy had not proceeded beyond the eighth month, and maceration was present in at least 7 of the babies.

In conclusion, we have tabulated the following brief clinical histories of our 34 cases, the study of which has been of great value and interest.

Case No.	Parity	Period of Gestation	Treatment	Mother	Baby	Notes
1	IX	9	Abdominal Cesarean	Lived	Still Birth	Admitted to the hospital pulseless, almost moribund. Uneventful recovery.
2	IX	7½	Abdominal Cesarean Uterus full of blood	Lived	Still Birth 4 4/16 lb.	Admitted to the hospital in extremis.
3	V	8½	Abdominal Cesarean Large amount of blood in the uterus	Lived	Lived 6 8/16 lb.	Severe hemorrhage and bleeding at home for 12 hrs. Not in labor. Cervix closed. R. O. A. above brim.
4	I	8½	No. 4 bag introduced but uterus enlarged and patient became worse. Diagnosis concealed hemorrhage. Abdominal Cesarean. 12 to 15 ounces of blood in the uterus.	Died	Still Birth 4 6/16 lb.	Bleeding 1¾ hrs. before admission to the hospital. Uterus 8½ months size—tense. No fetal heart. Cervix 2 F. dilated. Red cells 3,000,000. Hemoglobin 65%. Died 7½ hrs. after Cesarean from shock and previous hemorrhage. No further bleeding in the hospital.
5	I	7½	Artificial rupture of the membranes. No. 5 bag introduced. Increased tension in the uterus. Abdominal Cesarean.	Died	Still Birth Macerated	Profuse bleeding. Cervix almost closed. Died 4 days later of sepsis.
6	V	9	Abdominal Cesarean	Lived	Still Birth 4 4/16 lb.	Admitted to the hospital pulseless (128 at the heart). Steady bleeding. Uterus tender—tense. Red cells 2,900,000. Hemoglobin 59%. Mild temperature 10 days, then normal.
7	II B	7½	No. 4 bag introduced at 2 A. M. Membranes accidentally ruptured (during introduction of the bag) 6 P. M. Abdominal Cesarean. Placenta free in the uterus, ½ cupful of blood found in peritoneal cavity.	Lived	Still Birth	Lost 1 quart of blood at home. Uterus tense—hard. Not in labor. No fetal heart or life felt. Bleeding moderately. Cervix 1 F. dilated—rigid. Hemoglobin 85% on admission.
8	X	7	Abdominal Cesarean. Placenta free. Uterine musculature markedly hemorrhagic. Rapid closure. Died on table.	Died	Still Birth	Admitted in shock. Large hemorrhage and bleeding 6-8 hrs. at home. Uterus tense and tender. Cervix 1 F. dilated. Profuse bleeding. Not in labor. Died 1½ hrs. after admission.
9	V	8	de Ribes bag introduced. Breech presentation and extraction	Lived	Lived 5 6/16 lb.	Hemorrhage profuse in first stage. Cervix 1½ F. dilated on admission.
10	?	?	Version and extraction.	Died	Still Birth Macerated	Hospital record mislaid. Details unknown.
11	III	8½		Died	Not Born	History of profuse hemorrhage at home. Admitted in extremis. Large, tender, boggy uterus. Cervix 1½ F. dilated, thick. Head floating. No fetal heart. Died while preparations were being made for Cesarean, 1½ hrs. after admission to the hospital.
12	VIII	8	Manually dilated (no bleeding) ruptured membranes. 1500 c.c. blood in uterus. Placenta free in the uterine cavity. Version and extraction.	Died	Still Birth 7 lb.	Admitted to the hospital pulseless—pallid. Uterus tense, painful and tender. No fetal heart, no life. Cervix 3 F. dilated—soft. Head floating. Died 2 hrs. after delivery (2½ hrs. after admission).
13	X B	7	Hick's version—pituitrin Breech extraction.	Died	Still Birth 3½ lb.	Admitted to the hospital bleeding profusely—pale—pulse of poor quality Vertex above the brim. Cervix 1½ F dilated. Bled through packing. Died 3 hrs. after delivery—7 hrs. after admission to the hospital.
14	IX	?	Spontaneous delivery (moderate hemorrhage)	Lived	Still Birth 6½ lb.	Bleeding 2 hrs. before admittance Abdomen tense—strong pains. Cerv thick—2½ F. dilated.

15	I	8½	Nos. 4 and 5 bags introduced. Version and extraction (bleeding moderately). Blood clots in the uterus. Fair condition.	Lived	Still Birth 6¾ lb.	Admitted bleeding slightly. Abdomen tense and tender.
16	I	9	Spontaneous delivery. Fair condition.	Lived	Lived	Nearly exsanguinated. II stage.
17	I	?	Nos. 2 and 4 bag introduced. Manual dilation. Low forceps.	Died	Still Birth 3 2/16 lb.	Admitted 11 P.M. 11 A.M., No. 4 bag introduced. 4:30 P.M., manual dilation and low forceps. Urine solid and all varieties of casts. Red cells 1,260,000. Hemoglobin 30%. Died at 7 P.M. of hemorrhage, 2 hrs. after forceps operation.
18	III	9	Spontaneous delivery.	Lived	Still Birth 7 11/16 lb.	No fetal heart. Membranes intact. after birth 1,000 cc. of concealed blood expelled, clot covering entire maternal surface of placenta.
19	IV	9	Artificial rupture of membranes. 5 Minn. Pituitrin. Spontaneous delivery.	Lived	Lived	Concealed hemorrhage (probably 750 cc.). Old blood clot covering one-third of placenta.
20	V	9	Labor introduced with No. 4 bag. Breech presentation and extraction. Manual extraction of placenta.	Lived	Still Birth Macerated	Admitted in poor condition with a history of profuse bleeding for 5 hrs Abdomen tense. Uterus in tonic contraction. Cervix 2 F. dilated. Membranes intact. Red cells 3,500,000. Hemoglobin 75%.
21	II	8	Version and extraction. Placent free in the uterus with blood clots.	Died	Still Birth 5 lb.	Admitted at 8 A.M. exsanguinated cervix almost fully dilated. Vertex presentation. Uterus hard—painful. Died 2¼ hrs. after admission to the hospital.
22	IX	9	Version.	Lived	Still Birth Macerated 6 12/16 lb.	Admitted at 2 A.M. in labor. 8 A.M., slight bleeding. Cervix 3 F. dilated. Vertex above — bleeding moderate — uterus hard and tender.
23	II	8	Artificial rupture of the membranes. No. 5 bag introduced, spontaneous delivery. 700 cc. concealed hemorrhage.	Lived	Still Birth 3 lb.	Cervix 2 F. dilated—vertex presentation—uterus hard—slight bleeding (had been bleeding for 4 hrs.). Albumin 4+ and many casts. Red cells 3,000,000.
24	I	7½	No. 3 bag introduced. Hemorrhage profuse in I and II stage.	Lived	Still Birth 3 8/16 lb.	Good recovery.
25	IX	9	Immediate version and extraction. Craniotomy for after coming head.	Lived	Still Birth 10 7/16 lb.	Bled profusely on admission to the hospital. Cord prolapsed (pulse 140).
26	II	9	Bag introduced—pituitrin. Normal delivery.	Lived	Lived 7 4/16 lb.	History of profuse hemorrhage at home and profuse bleeding on admission. Cervix 3 F. dilated.
27	IV	8	Version and extraction. (Transverse position.)	Lived	Still Birth	Bled profusely 7 hrs. before admission to the hospital. Pulse poor.
28	VII	9	No. 5 bag introduced. Version and extraction.	Lived	Still Birth Macerated	Admitted bleeding profusely. Cervix 3 F. dilated.
29	V	9	No. 4 bag introduced. Forceps. Blood clots in uterus.	Lived	Still Birth 7½ lb.	History of profuse bleeding before admission to the hospital. Cervix 3 F. dilated. No fetal heart or life felt.
30	V	8	Breech presentation. No. 4 bag introduced.	Lived	Monster 4 12/16 lb. Lived 5 min.	Profuse bleeding day of admission to hospital. Bled through the packing (private doctor). Cervix 2½ F. dilated on admission.
31	V	7	Vaginal Cesarean. Condition poor.	Lived	Still Birth Twins	Twins. Bleeding profusely on admission. Red cells 3,400,000. Hemoglobin 35%. Babies still born, 3 lbs. and 3 4/16 lbs. Profuse postpartum hemorrhage and shock.
32	I	7	Normal delivery (head on perineum).	Lived	Still Birth 3 6/16 lb.	Bleeding 4 days before admission. Red cells 2,900,000. Hemoglobin 55%.
33	V	8	Version and extraction. Placenta free in uterine cavity.	Lived	Still Birth Macerated 6 4/16 lb.	Bleeding 8 hrs. before admission. Cervix fully dilated. Hand presentation.
34	IV	9	No. 5 bag introduced. Breech presentation and extraction.	Lived	Still Birth	History of bleeding at home. Profuse bleeding on admission to the hospital.

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THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THYROID GLAND*

By ARNOLD S. JACKSON, M.D., JACKSON CLINIC, MADISON, WIS.

THE subject of diseases of the thyroid gland covers such a large field that it is obviously impossible in a short paper to discuss any particular phase in detail. Consequently it seems that a general discussion will prove of greater interest than one limited to a single aspect.

Naturally goiter is the most important problem related to the thyroid gland and is the chief subject for discussion. While this disease does not appear to be as prevalent in New York as in some of our Middle Western states, yet its occurrence is so frequent as to merit the attention and careful study of every physician. The work that has already been done by certain members of your State Society has attracted national interest. So great has become the importance of this problem that governments, provinces, states and cities have appointed commissions to study means of checking the spread of goiter, and the fight has only begun. As in the case of cancer, science has accomplished more in attacking the disease than in discovering its etiology. The number of persons in this country afflicted with goiter is far greater than the number suffering from cancer and tuberculosis combined. Fortunately only a small proportion of those having goiter are suffering from a toxic condition.

Before entering further into this question, it seems best to review briefly a classification of goiter that will permit of a common discussion. The textbooks and medical schools have frequently been guilty of teaching such elaborate classifications as to lead to considerable confusion on this subject. The simpler the classification, the more easily may the various types be separated.

It is generally agreed that there is a simple, or non-toxic, and a toxic form of goiter. In the simple class are the colloid and the adenomatous forms. Until 1913 the toxic type was represented as exophthalmic goiter, but Plummer then distinguished between the latter and toxic adenoma. This classification gave two forms of toxic goiter, but European physicians and some in this country, notably the Crile school, have not accepted this distinction. They maintain that exophthalmic goiter and toxic adenoma with hyperthyroidism are a single entity. It seems obvious to me that there is a marked clinical and pathological distinction between these two types of toxic goiter. Moreover, I believe that a further differentiation should be made and a separate classification established for the group of cases of adenomatous goiter in which a toxic condition is induced by the injudicious use of iodine. This toxic form of goiter was recognized by Kocher who warned against it. Because in many ways this condition resembled exophthalmic goiter, or Basedow's disease, Breuer called it "iodine Basedow." The literature contains the reports of many supposed cases of exophthalmic goiter induced by the indiscriminate use of iodine. Recently I reported a series of 50 cases in which hyperthyroidism had developed in this manner. Since this toxic state was always associated with adenomatous goiter and since the clinical symptoms varied markedly from those of either toxic adenoma or exophthalmic goiter, I felt that the term "iodine Basedow" was incorrect. Basedow's or Graves' disease is generally understood to mean exophthalmic goiter. Consequently I have proposed the term "iodine hyperthyroidism" as more truly suggestive of this condition.

Thus, to enumerate, we have the following types:

- I. Non-toxic or simple
  - 1. Colloid
  - 2. Adenomatous
- II. Toxic
  - 1. Toxic Adenoma
  - 2. Iodine Hyperthyroidism
  - 3. Exophthalmic

A few of the more important points about the various forms of goiter might be reviewed.

Colloid Goiter. Etiology. The majority of evidence, as shown by Marine and Lenhart in their experience in the prevention of goiter in animals and later in school children, suggests an iodine deficiency as the cause of simple goiter. The inverse ratio between the prevalence of goiter and the amount of iodine in the drinking water, as shown by McClendon, is further proof. As a result of this work millions of children in this country and in Europe are receiving iodine either under the direction of the state or their physicians. At present I have a group of seven hundred children between the ages of six and twenty under observation. While I am continuing to use and to advocate the use of iodine as a preventive of goiter, I regret that my experience in the treatment of many of these cases has been unsatisfactory. Two hundred patients have been carefully observed over a period of three years and the results of treatment, even in the younger patients, does not support the splendid work of Marine, Lenhart and Kimball. Possibly and probably iodine is successful in the prevention of colloid goiter in the majority of children. Once this form of goiter has developed, iodine is ineffective in many cases. For several years I have experimented, trying every form of iodine and various preparations of thyroid gland with only variable success. Probably iodine is what the body needs, but apparently it is not readily absorbed. Whether or not infection or other factors such as the water are concerned with the inability of the body to absorb iodine remains to be determined.

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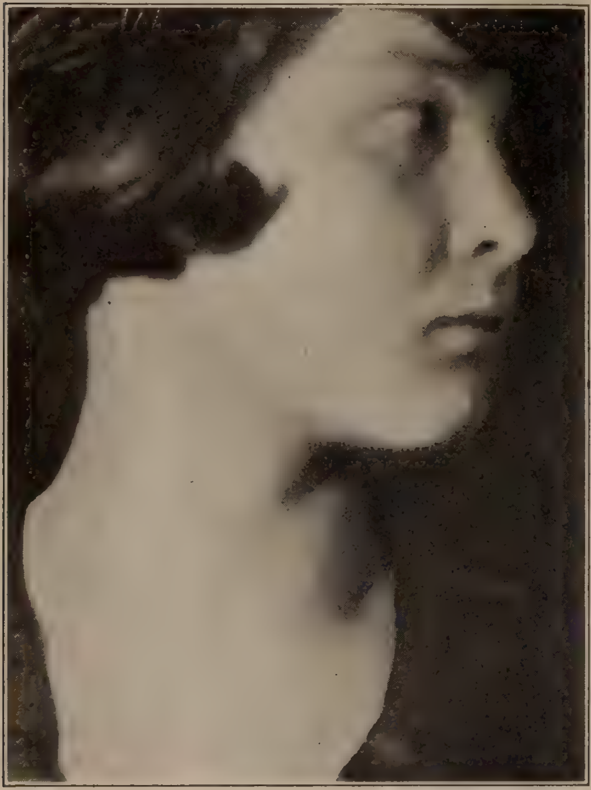
* Presented before the First District Branch of the Medical Society of the State of New York, November 10, 1926.

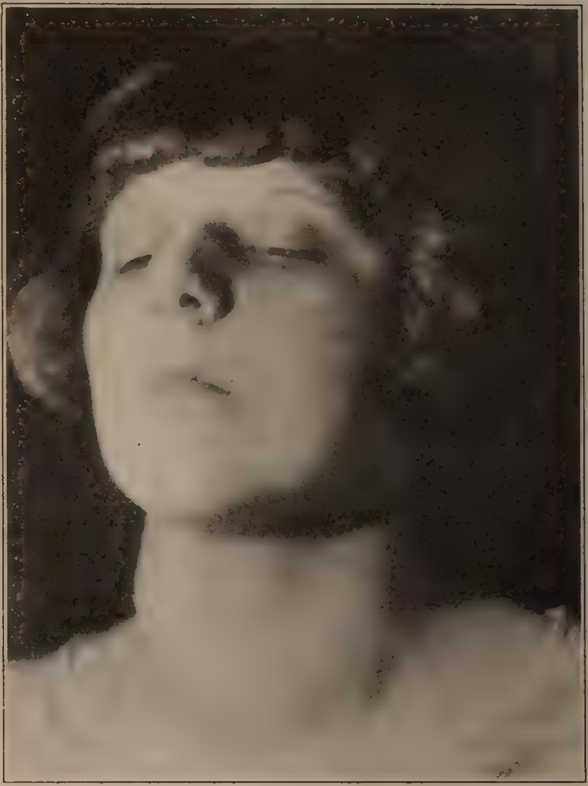
Treatment. I am opposed to the wholesale distribution of iodine and believe it should be supplied to the school children only under the careful supervision of the health authorities or family physician. Certainly the most accurate and scientific method of treatment is the use of a chocolate tablet containing ten milligrams of iodine. This should be given once or twice a week during the school year, as indicated.



I. The majority of girls in the northern half of the United States have colloid goiters such as this. In the past such goiters have been considered as merely physiological enlargements. Iodine may prevent but will probably not cure this type.

Non-Toxic Adenomatous Goiter. Etiology Undetermined. Possibly this condition develops in a neglected colloid goiter as a form of compensatory hypertrophy. Probably the majority of these goiters arise during puberty and rarely if ever develop after the age of twenty-five. They are closely associated with the colloid type and probably develop in fully 50 per cent of these cases.

Treatment. The administration of iodine to children in goiterous districts, from eight years of age on to twenty, may prevent the development of this form. Certainly once an adenomatous goiter has developed, all the iodine in the world will not remove the goiter, contrary to an idea that has been often supported. The goiter may decrease in size due to the absorption of colloid, but the adenomatous portion either becomes substernal or remains dormant, only to cause trouble perhaps in later years.

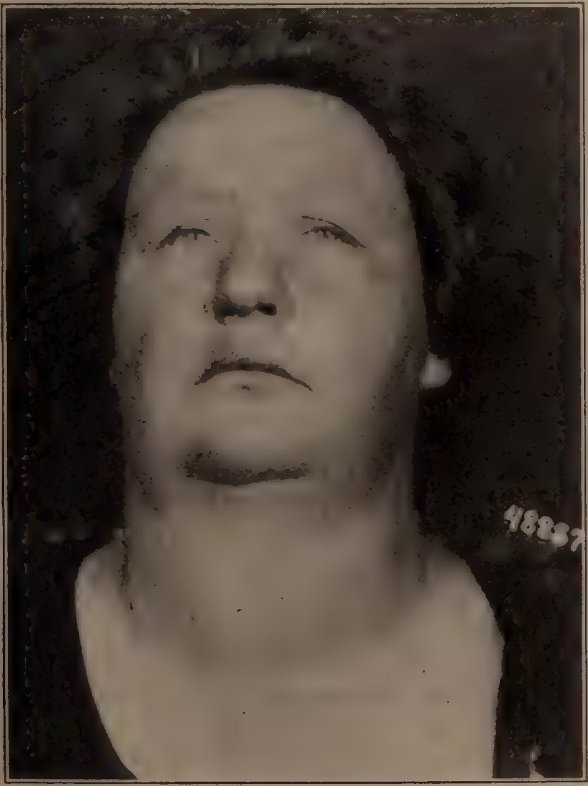


II. Multiple non-toxic adenomas have grown rapidly in this colloid goiter. Surgery is indicated as a matter of protection for the future.

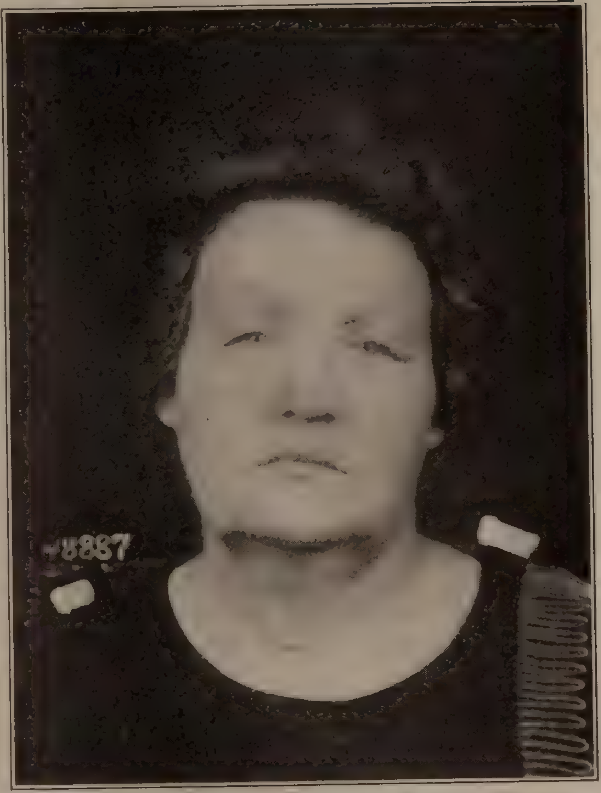
The use of iodine in small doses up to the age of twenty-one in the treatment of colloid goiters containing small adenomas is not objectionable, provided the patient is observed at frequent intervals. While the adenomatous portion will persist, the general enlargement of the goiter may be retarded so that a cosmetic success is achieved and surgery postponed.

After the age of twenty-one and occasionally before, I advise but do not urge the removal of adenomatous goiters as a matter of protection for the future. In probably 50 per cent, hyperthyroidism will ultimately result with consequent damage to the vital organs. A frequent cause of hypertension is toxic adenoma. In approximately 2 per cent malignancy will occur. Ten per cent will become substernal or intrathoracic and in time may involve the recurrent laryngeal nerves, or cause respiratory or cardiac embarrassment. Another 10 per cent will greatly enlarge and will become unsightly and prove a source of great discomfort and annoyance. Myocarditis, resulting from a constant back pressure on the heart from large goiters, is an important factor in our mortality statistics. It is true that a certain number of persons with adenomatous goiters go through life and never suffer any consequences. From my observation and experience I do not advise my patients to take this chance.

Toxic Adenomatous Goiter. An adenomatous goiter untreated will develop toxic symptoms on an average of twenty-five years after its appearance in about one out of every two cases. The onset of symptoms is so gradual and insidious as to be seldom observed by the patient for several years. Even after the patient reports to his physician to be treated for hypertension, heart trouble or Bright's disease, the presence of a small adenomatous goiter which is the focus of the trouble may be overlooked for some time. Advanced cases of this type offer a high surgical risk, and there is little that can be done, either in the preoperative or postoperative care, that is of much benefit. Two years ago Plummer stopped digitalizing all these cases except those of broken compensation. He has felt that a lowered surgical mortality has resulted. Personally I have been hesitant about this step, although I am always ready to acknowledge the genius of Plummer. Iodine is not a factor except in the presence of an associated exophthalmic goiter. When in doubt always administer iodine for a week, as in this short time no harm can result and trouble may be avoided. Auricular fibrillation is a frequent sequela. It is remarkable that, in some instances, within a few hours after operation the pulse becomes regular and remains so. In other cases the irregularity persists. If thyroidectomy is performed under local anesthesia the risk is materially decreased. Pneumonia and cardiac failure are complications not unlikely to occur in long-standing cases.



III. Fortunately large adenomatous goiters as this seldom become toxic. The heart is damaged, however, by the constant back pressure.



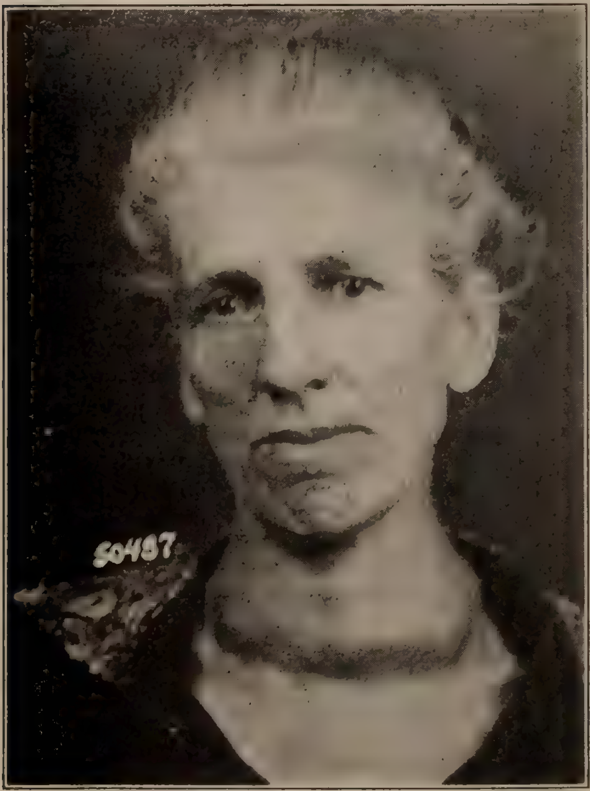
IV. Same patient one month after operation. The relief of dyspnoea was almost immediate.

Iodine Hyperthyroidism. The promiscuous use of iodine in the treatment of goiter as advocated by certain physicians, health authorities and persons of no medical knowledge whatever has greatly increased the incidence of this condition. In a series of 50 cases which I recently reviewed, I found that Lugol's solution of iodine administered by family physicians was responsible for six of the cases, including three that terminated fatally. Eight patients had been treated by the same physician. In seven cases patent medicines were the cause of the development of toxicity. It is impossible to review the clinical symptoms in this paper, but it is important to note that iodine should not be administered for more than three weeks to persons having adenomatous goiter after the age of twenty-one. Not every case will develop symptoms of iodine hyperthryroidism, but in those who do, serious consequences may result.

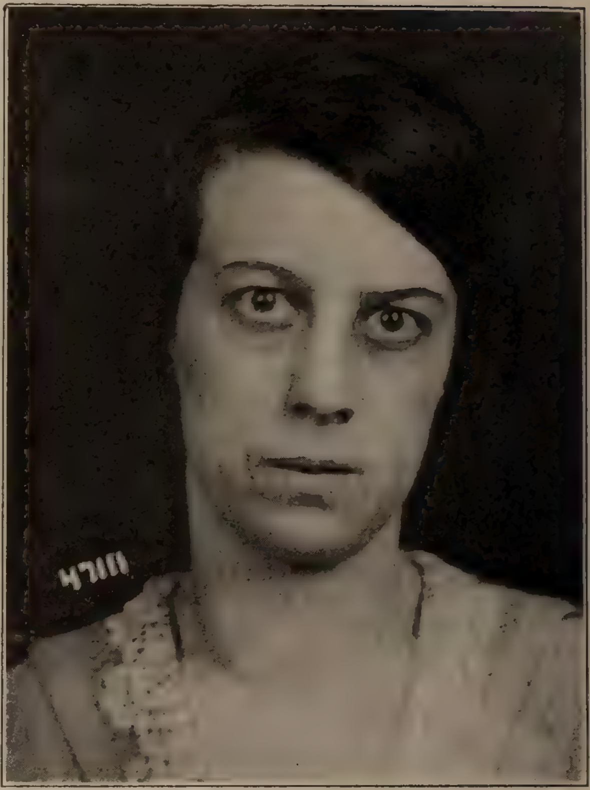
Treatment of these cases is, of course, prevention. Once symptoms have developed the drug should at once be withdrawn. Rest and symptomatic treatment may effect a medical cure. Surgery is indicated in the majority of instances and may be performed with considerable risk. Every effort should first be made to improve the patient's condition by medical measures.

Exophthalmic Goiter. Etiology. We are no closer to the solution of the etiology of this disease than we were a decade or two ago. Whether or not there is a predisposing constitutional factor, whether infection is important or whether some psychic stimulus from nerve strain or shock is important cannot be said. It is a fact that the disease is apparently increasing rapidly in this country and in greater ratio in the male sex. It progresses in series of waves of varying intensity, an unusually severe type appearing after the influenza epidemics. Its incidence seems to be related somewhat to the presence of colloid goiter, the two types occurring in a high ratio in the same districts.

Treatment. Happily we have made remarkable progress in the treatment of this disease owing to the discovery by Plummer of the efficacy of iodine as a preoperative measure. The long-drawn-out periods of hospitalization and consequent financial drain to the patient with the painful and often serious ligation and stage operations have been eliminated. I have used iodine in the preoperative and postoperative care of my patients for the past four years, and believe the surgical results achieved are largely dependent upon the use of this drug. Many patients admitted to the hospital in a crisis, that formerly might not have survived, respond remarkably to iodine. Patients come to the operating room quiet and composed and return to their rooms in the same condition. It is unnecessary to deceive the patient as to the time of operation; on the contrary, they are informed of the exact hour. The element of hyperthyroidism has been practically eliminated as a surgical complication, but this does not prevent the occurrence of pneumonia, cardiac failure or, perhaps most important of all, injury to the recurrent laryngeal nerves. In a previous article attention was called to the remarkable change effected in the pathology of the gland by iodine. There is a reversion of the hyperplastic gland to colloid so that operation is less tedious and difficult, the gland being neither as vascular nor as friable.



V. Case of iodine hyperthyroidiam. The use of iodine in the treatment of adenomatous goiters may result in serious consequences. The B. M. R. in this case was plus 52 per cent. Operation resulted successfully, although performed with considerable risk.



VI. There are certain factors not indicated by the basal metabolic rate nor even the clinical symptoms that suggest a severe hyperthyroidism. The rate in this case was only plus 34 per cent.

In this short paper it has been impossible to

VII. The same patient five months following operation for exophthalmic goiter. Recovery has been complete, the patient having regained her normal health and strength.

call attention to many important diagnostic points of differentiation, and an effort to do this will be made with the slides to be shown.

Myxedema and Cretinism. These two diseases are, with the exception of goiter, probably the most important involving the thyroid gland. It is well known that cretinism occurs wherever goiter is prevalent. The highest incidence of this condition is found in Switzerland. If we are to check the spread of this affliction in our country we must prevent the increase of goiter. Otherwise, after several more generations of goiter, we may certainly expect a marked increase of cretinism.

Myxedema may develop as the result of an infection that produces an acute or chronic thyroiditis and ultimate destruction of the gland. This may occur in untreated conditions or following a thyroidectomy. The characteristic symptoms of an increase in weight, a dry skin, loss of hair, retarded mental and physical effort are too well known to need discussion. Valuable contributory data may be obtained by a gastric test meal showing an hypochlorhydria and a blood test showing a secondary anemia. These patients may be treated for years as cases of chronic nephritis or myocarditis. Perhaps the most brilliant therapeutic result that may be observed in the realm of medicine follows the intravenous administration of thyroxin. Within a few hours the skin becomes warm and moist, there is a rapid loss of weight, the patient is no longer dull and lethargic, but again becomes active and alert both mentally and physically.

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DISEASES OF DUTCHESS COUNTY A CENTURY AGO

By FRANK OVERTON, M.D., PATCHOGUE, N. Y.

DR. JAMES E. SADLIER, President-elect of the Medical Society of the State of New York, has run across a book entitled "A Review of the Diseases of Dutchess County from 1809 to 1825, being the subject of two addresses read before the Medical Society at their Annual Meeting in 1819 and 1825; also an essay on a disease of the jaw bones, to which is added an appendix containing notes and elucidations" by Hunting Sherrill, late President of the Dutchess County Medical Society.

The book was published by S. C. Schenck, 252 Broadway, New York City, and printed by J. Seymore, John Street. It bears the date 1826, and a record that it was prepared in accordance with a vote of the Society, and the same vote requested to members to subscribe for the publication. This record is signed by Calvert Canfield, Secretary, April 9, 1826.

Dr. Sherrill began the practice of medicine in Hyde Park, Dutchess County, in 1809. However, he is listed in a New York City Directory of 1842 as having an office at 8 Morton Street. One of his other books records the fact that in 1859 he had a pharmacy at 513 Hudson Street. He was a Homeopath and wrote an extensive treatise on "Homeopathic Practice of Medicine" in 1853. He also wrote a pamphlet called "Suggestions on Small Pox" in 1852, in which he advocated the use of a triturate of smallpox virus given internally. In 1835 he published a pamphlet on the "Pathology of Epidemic Cholera." In 1859 he wrote a fifty-page pamphlet called "A Temperance Medical Lecture." All his writings were sane and sensible and do not show any leanings toward the partisan practice of medicine.

The first address in the Review of Diseases of Dutchess County describes the prevailing diseases which Dr. Sherrill saw in the vicinity of Hyde Park during the decade 1809-1819. The first epidemic was one of severe malaria, concerning which he writes: "In 1809, when I commenced the practice of medicine in this county, I found it very subject to fevers of the intermittent and remittent types, and in the autumn assuming symptoms of high bilious grades of disease. Creek fever, and Hyde Park fever had become proverbial in this part of the country. The same type of disease spread more or less through the county, particularly along the banks of Wappingers Creek, especially near the alluvial longs as you approach its source. The disease obtained various local and popular names. Still it was all remittent bilious fever and governed by the same general laws.

"The vernal season opened with intermittent fevers of a mild character, and occasional remittents. As the season advanced and the weather became warm, the intermittents became more severe and obstinate, and the remittents increased in proportion to number as well as in severity. Toward autumn and in the fall, real bilious remittents became very prevalent. These frequently were attended with symptoms of great severity."

Dr. Sherrill then describes the disease—rigors, restlessness, nausea, and severe pains in the head and back, and a yellow skin. Dysenteric symptoms were often present. The cases often lasted two weeks, although, he says:

"When the patient had early and proper attendance, the tendency of the disease was to intermit on the fifth, seventh, or ninth day and form a salutary crises."

The author continues: "This was the constitutional character of the diseases during the summer and fall of 1809, 1810, and 1811, though there was less sickness in 1811 than in the preceding years, and those cases were of a milder grade. The remainder of those years were generally healthy, although there were more or less cases of phlegmasial disease, as catarrh, pneumonia, enteritis, croup, etc. This period of 1811 was also attended with a peculiarly obstinate cutaneous eruption, which frequently extended into blotches and sores; from what circumstance I know not, but it obtained the popular name of merino itch. This eruption often resisted the usual remedies for common cutaneous affection. To effect a cure, it was often necessary to have recourse to active mercurials externally, and alternatives internally. May not this disease have been a precursor of one of more violence that followed it—the winter epidemic?

"The method which proved most successful in the cure of these fevers was—in the intermittents, effectually to cleanse the alimentary canal; and in the intermission, to administer bark (cinchona) bitters, wine, etc.; and during the febrile stage, diluents and sudorifics. The patient was sometimes much benefitted, but anticipating the fit, by an anodyne, or an anodyne combined with sudorifics. It was sometimes necessary to vary the mode, by anticipating the fit, with blisters, or substituting mineral preparations instead of, or combined with the bark.

"We have remarked, that the fever was more mild in the autumn of 1811, than it had been during the preceding years. It exerted less force in its action, and the cases were less numerous. The disease declined early in the fall: it seemed to have spent its force, and finally suspended its operation on the human system, not only for this year, but nearly so for every year since; so that it may be considered, that here terminated the train of summer and autumnal bilious disease; and our county has been subject to very little of that character of disorder since."

The second epidemic to be described was one of influenza. Dr. Sherrill begins its description on page 20 as follows:

"In the latter part of 1811 and the commencement of 1812, an unusual degree of health existed. We had no fevers of any particular description, and few other diseases, until about February. Cases of disease began to occur, somewhat novel in their appearance and progress, which operated with unusual force on the human system, and in many cases terminated fatally and unexpectedly. It was no less than the commencement of a disease that called forth an exertion of the medical faculty; that excited much anxiety and solicitude in the community; and called upon its members frequently to witness its melancholy effects, and frequently to draw forth their sympathies or mingle their tears with bereaved friends or relatives, from bereavements of those who had fallen victims to the *winter epidemic.*"

The doctor describes the disease as follows:

"The case was generally ushered in with agues, or chills, which frequently continued an unusual period. Generally, the longer time they continued the more obstinate was the case. Sometimes there was a sudden prostration of strength, and great want of action of the skin. Frequently at the commencement, the patient was affected with violent pain in the chest, difficulty of breathing, pain in the head, back, and some one or all the limbs, and nausea, and puking of bilious matter. Sometimes they were attacked with the unual symptoms of autumnal bilious fever, attended with a yellowness of the skin, yellow eyes, a yellowish tinge on the tongue, etc. Sometimes the patient was attacked with dysenteric affection, together with pain, and some of the other symptoms noticed."

The epidemic seems to have almost disappeared during the summer, but it reappeared in the following winter. Dr. Sherrill says that the Rev. L. Birch of Stanford, who devoted the most of his time to calling on the sick, gave the number of deaths in his parish as follows:

January	4
February	4
March	18
April	24
May	11
June	2
	63

He adds that the town has an area of 50 square miles, and contains 2,350 inhabitants.

Dr. Sherrill himself saw 112 cases during the second winter, of whom 7 died. He says:

"The disease again disappeared in 1813 on the approach of warm weather. A very healthy summer and autumn ensued. The train of the remittent bilious autumnal fever has been nearly extinct since the appearance of the winter epidemic. The summers and autumns in general have been healthy: the winter and vernal seasons have produced some cases of disease, in addition to the ordinary diseases of the season, which assumed more or less the character of the epidemic, which may be considered sporadic cases of that disease."

Dr. Sherrill devotes several pages to a discussion of the treatment of the disease. He says:

"The great business of a practitioner of medicine, at the appearance of numerous violent cases of disease, which he is called upon to alleviate, or conduct the suffering patient through, is to investigate the nature of it, to refer it to some general laws of morbid excitement, to observe the manner in which it produces its effects on the system, and to adopt some rational, and if possible, a successful method of cure. Some time previous to the appearance of this disease among us, we had had numerous and various accounts of a complaint that had prevailed in several parts of the Eastern States with a good deal of violence and mortality. Those accounts of the disease in the East, together with the method of treating it, were frequently contradictory, as they were brought to us by common intercourse and verbal communication, by newspaper intelligence, and by some professed medical publications. The opinion respecting the nature of the disease to the Eastward, which was more generally held in this county, which was the most popular and generally received, was, that it was spotted fever from debility, or that it was a disease of a direct typhoid character, and that all evacuating remedies were injurious in the cure of it."

"When the disease first appeared, I did passively receive the doctrine that we had an epidemic of a direct typhoid character; and this was so much in accordance with popular opinion, that it required very considerable firmness to resist the current that set in from every direction against every species of depletion; hence nurses, old women, and uninformed individuals soon appeared with hemlocks, essences, cordials, and a vast host of heating sudorifics, the use of which was commenced with the commencement of the case, ready to lop off the heads of the hydra epidemic."

The doctor devotes 14 pages to a discussion of the best mode of treating the disease, and quoted numerous authorities from Sydenham to Dr. Benjamin Rush, whom he calls the Sydenham of America. He decided on cathartics and blood letting as the best. He says:

"The use of the lanert was commenced cautiously, particularly it was used in those cases where there was a pneumonia attack. After bleeding an emetic was given, which was followed by a course of cathartic medicines so as to produce repeated and thorough alvine evacuations.

"In the operation of the cathartics, there was generally a copious discharge of bilious, feculent matter. After the bleeding, the pulse commonly became more full and fair, which was particularly the case after the other evacuations; and then the patient was pretty readily got into an easy moisture, by diluting drinks and gentle sudorifics.

"The case occasionally so far partook of the phlegmasial type, as to require a repetition of the bleeding, and that sometimes on the sixth or seventh day, particularly in the latter part of the spring. In 1812, R. Nelson, Esq., now editor of the *Indiana Herald,* who was very much prostrated in the attack, was bled at first, after which, the symptoms were such as to require two more bleedings to remove the disease. The system appeared to be relieved, and reacted much better in many cases by taking a small quantity of blood at first, and repeating it. This was in imitation of the slow manner in which nature discharged the blood in those cases of spontaneous hemorrhage.

"In that type of the disease in which the lungs were not affected, blood-letting generally appeared unnecessary. The first remedy, therefore, was an emetic, or a course of cathartics. The purgative medicine was given so as to produce a number of copious evacuations: these were followed, intervened, or combined with diluents and sudorifics, and externally blisters, or some other application to parts locally affected. I was often agreeably disappointed, on making a second or third visit, to find the patient, particularly children, who had been considered dangerously ill, sitting up, or in a playful, or comfortable, or convalescent state, after the operation of the evacuating medicines. In this type of the disease, the remedies varied very little from those which had been successfully used in the bilious remittent fever of the preceding years; excpt an earlier and more liberal use of wine appeared servicable."

Dr. Sherrill then gives some statistics of the cases which he saw during the second winter of the epidemic. The cases numbered 112 of whom 61 had lung evolvements and were bled—five twice and one three times. There were seven deaths. Four of the fatal cases were of intemperate habits. "One had been in the habit of drinking from a pint to a quart of spirits a day, so said his friends. The disease seized him like a whirlwind, and soon carried him off. The other three intemperates having recently come into the place, had their prejudices about them, and obstinately refused being bled, though their situation urgently required it. One of them died in a state of furious delirium, with full symptoms of depression and turgescence of the system. One of the others took few or none of the medicines directed, and got little or no nursing. If those four that literally destroyed themselves are deducted, one hundred and eight cases remain, out of which there were three deaths—equal to one in thirty-six."

The third outbreak of disease to be described was of an uncertain nature. The author describes its origin as follows:

"In the autumn of 1814, our citizens were affected, and in some instances fatally so, in consequence of a febrile disease, which appeared to have its origin with the militia who were doing camp duty at Harlem and Brooklyn, in the vicinity of the city of New York. From this circumstance the disease received the appellation of the Harlem or Brooklyn fever. There might have been some propriety for it as a common or popular name. Owing to a pretty large detachment of the militia of this county being sent there on military duty, a number sickened there, and some died; some sickened and came home on parole, and others sickened after their return.

"The disease, however, was not confined to this class of people; it occasionally attacked others, though the principal part of the cases were among those of the family or attendants of those who had been in the army.

"The symptoms attending the disease were rigors, pain in the head, back, and limbs; the stomach was more or less disordered; the eyes were red, or bloodshot, tongue slightly furred; pulse sometimes full and firm, and at others small or yielding."

The treatment was by blood letting, emetics, and cathartics.

The fourth epidemic was one of sore throat, which began early in the year 1819. The soreness was accompanied by membranes and external swellings; and sometimes with suppuration. That the disease was probably due to a streptoccocci infection is confirmed by the closing paragraph of the description:

"Mingled with this complaint, and immediately following it, we had cases of pneumonia, influenza, rheumatism, etc.; in all which, as well as in all febrile diseases of the forepart of the year, there has been a peculiar disposition to affection of the head, with pain, stupor, and sometimes delirium. Those cases of catarrhal pneumonia and affection of the head, with fulness, stupor, and some delirium, came near proving fatal in several cases; they were cured by large bleedings, and other active evacuations."

The epidemic of sore throat was followed by an outbreak of "cyanchae maligna, or scarlet fever." The author continues, "No deaths occurred."

Referring to the events immediately preceding the meeting of the society, Dr. Sherrill said: "While the inhabitants of the metropolis, and the cities along the sea-board, almost from one end of the territory to the other, have been excited by fears and anxieties, and shunning the seats of pestilence, and fleeing their homes in 'wild confusion,' in consequence of the prevalence of malignant disease (yellow fever), which appeared with threatening devastation—our county has in general this season enjoyed an unusual degree of health. The autumn brought with it some cases of remittent fever, attended more or less with bilious symptoms, which in some instances has showed a disposition to protect its existence to a very considerable length. Whether this is owing to some peculiarity of the season or the type of the disease, or to some other cause, remains for further observation to determine."

In closing the paper the author says: "It will be perceived that the practice of medicine is not a business of nostrum or specific—that diseases are not to be met with, simply confined within the lines of nosological arrangement, nor cured by specific remedies for specific diseases; but that the character of the disease, the stage of the case, and the grade of excitement, ought to govern the prescriptions—that a faculty of discrimination in detecting and applying remedies to them, constitutes the most correct and most skilful physician. In such reflections, the members of this Society will see the importance of their situation. Organized under the patronage of an enlightened legislature, they become the guardians of the public health, and may be enabled to overawe empiricism and promote a rational and systematic method of managing diseases."

The second address of the book was given before the Dutchess County Medical Society at its annual meeting in November, 1825. It begins with a description of the diseases prevalent in 1820. Dr. Sherrill says:

"The year 1820 commenced under very favorable circumstances of exemption from general disease. A very few cases of phlegmasial affections marked the winter and vernal period. A few intermittents and mild remittents were the principal train of diseases of the first summer months. As the season advanced, the dysentery became epidemic: in some sections of the country it was attended with obstinate and alarming symptoms, and in many instances with fatality. The various ordinary derangements incident to this disease of the alimentary canal took place, which was frequently attended with considerable arterial action and fever. Bloody discharges from the bowels was almost an invariable symptom. The evacuations were sometimes scanty, attended with tenesmus; but frequently they were copious, partirularly after cathartics were used, and they frequently had the appearance of thick, bloody water."

The doctor describes his treatment as follows:

"In the early stage, particularly as the cold season approached, bloodletting in some cases was beneficial. This was best to be succeeded by emetics of ipecacuanha, or cathartics, of which calomel was a leading article, with something to aid its operation, when it was very serviceable to give remedies to determine to the skin, and sheathe the lining of the bowels. It was also found highly beneficial to give opiates occasionally, and particularly as an anodyne at night, in sufficient quantity to allay the pain and irritation. These remedies were to be followed by astringents, tonics, etc., as soon as the case would bear it. In several instances, as is perhaps too apt to be the case, time was lost by beginning with astringents too early, before the vascular excitement had been removed in the early stage. The fatal cases were about in proportion of one to twenty."

Concerning the diseases of the next year, the author says:

"In 1821, nothing peculiar marked the early part of this year. In some sections of the county, phlegmasial diseases prevailed to a moderate degree, particularly those of a peripneumonic type. They generally yielded to antiphlogistic remedies. It was a peripneumonic attack of this kind in May that terminated the life of the first President of this Society, Dr. Samuel Bard.

"Much is due to him for procuring the passage of the law by our Legislature, under the auspices of which we are this day assembled, and out of which has grown that advancing respectability of the medical character which, by the irradiating influence of science, has overawed, and almost obscured empiricism."

The author adds in a note: "No one thing, perhaps, is better calculated to correct medical abuses and professional jealousies, than well regulated medical societies. To effect that object it is advisable to have judicious laws, and those regularly enforced."

Dr. Sherrill describes smallpox in Dutchess County and its diminution "after the introduction of kinepox." In July, 1808, a case of smallpox occurred in the Alms House of New York City, and started an epidemic which spread to Dutchess County where it produced many deaths during the following winter. "Much of its influence was resisted by the use of kinepox. From the use of kinepox and probably in some measure from the subsiding or passing by of the atmospheric predisposition to produce smallpox, the disease disappeared in the spring of 1809."

The author says that very little was heard about the existence of smallpox until 1823, when numerous cases appeared in various parts of Dutchess County, most of which were varioloid. Dr. Sherrill gives a lengthy discussion upholding the protective value of vaccination with kinepox.

Measles is briefly discussed, and a fatal pneumonic type of black measles is described.

Dr. Sherrill also made general remarks about lung diseases, and says:

"The disease, which is more general than any other among us—which terminates more lives than any or all others to which our community is subject—which prevails every year, and at every season of the year, but more generally in cold weather—is the different grades of inflammation of the chest, arranged by nosologists under the various terms of bronchitis, influenza, peripneumonia, pleurisy, pneumonicula, etc.

"It has been three times epidemic within our time. In 1807 the influenza with peripneumonia spread through the county and extended itself over the United States. It was so universal in its operation that all, or nearly all, felt its influence. The late Dr. Wheeler of Red Hook observed that he did not know a person in that town who had escaped it.

"The disease that prevailed last spring was of a very active phlegmasial type. As is observed by John Bell, 'the lungs were frequently stuffed and crammed with blood.' When exhibiting a small pulse, prostration of strength, and a pallid countenance, there was the most urgent call for bleeding. And I have not met with a disease where the patient required more bleeding, or in which he bore it better. Although some cases recovered without the use of the lancet, yet in most cases of much activity it was used with advantage, and frequently it was necessary to be several times repeated."

Dr. Sherrill seems to put much stress on a classification of diseases into two types, the inflammatory and the typhoid. For the inflammatory diseases, blood-letting, cathartics, and sweatings were prescribed in order to "deplete" the system and remove congestion. For the typhoid group, tonics and stimulants were used. The book contains much discussion regarding these two types of diseases. Dr. Sherrill says:

"It has been considered that in many instances this disease is connected with a typhoid diathesis, or that there is a great proneness to that state of the system. Hence we hear of pneumonia typhoides, of typhus supervening, and that the patient may be run down if depletion is used, etc. As far as my observation has extended, I have not observed such a state.

"In addition to the testimony of a number of my medical brethren in favor of the asthenic nature of those diseases, their inflammatory character will appear, when it is observed that the antiphlogistic depletory course of treatment was uniformly pursued, and that out of the numerous cases that passed under my prescription, there was but one death (a child), and one case which terminated in consumption. The patient has since died. There was no case that exhibited a black tongue, or in which a typhoid state supervened.

"Whatever the diathesis of disease may be, as we leave the banks of the Hudson and approach the Connecticut River, I have not been able fully to determine. But, as it relates to our county, it will prove a dangerous delusion to adopt the position of Dr. Miner, that the inflammatory nature of disease has entirely left our country, and that 'all diseases partake of a typhoid character.' Numerous facts are not wanting to show the generally decided inflammatory or congestive nature of our diseases."

Childbed fever is the last disease discussed in the second chapter of the book. Dr. Sherrill considered it an inflammatory disease to be treated by cathartics and bleeding. He acknowledges the inefficacy of all forms of treatment, and says:

"It ought not to detract from the reputation of a practitioner to lose his patient in this disease, after the avowal of such men as Burns, that he could say what had failed, rather than what had cured; of Bard, who declared it to be a most fatal disorder; of William Hunter, who used bleeding and cathartics in one woman, and she died—sudorifics and fomentations in another, and she died; who tried the stimulant plan in another, and she died; in short, all plans failed; or of a Professor in Edinburgh, who, as we are informed, lately told his class that he considered it an incurable disease."

The book also contains an article on "Caries of the Jaws of Children," which was given before the Medico-Chirurgical Society of the University of New York in 1808, while Dr. Sherrill was physician to the Alms House. The disease seems to have been an aggravated form of advanced scurvy, possibly complicated with Vincent's angina. Dr. Sherrill says:

"In the inquiry into the causes of this affection, it will be proper to take into consideration the situation and diet of those who are subject to it. In an institution like the Alms House, there is necessarily a numerous collection of persons in one room. In the nurseries appropriated solely for children, there are about fifty or sixty inhabiting the same apartment, who consequently sleep, eat, and respire within a small compass. Medical history informs us, that the diseases of confined and crowded places have a gangrenous tendency; and experience confirms the remark. Though particular attention is paid to cleanliness in those rooms, there is more or less miasma generated and floating in the confined atmospheres, which will assist other causes in producing diseases, or render diseases obstinate which are otherwise produced.

"Their food is principally brown bread and molasses, though sometimes they have white bread; and latterly, considerable sugar instead of molasses."

As to treatment, the author prescribes mouth washes, tonics and Peruvian bark. It is interesting that the solution of copper sulphate which he found of value is still a standard form of treating Vincent's angina.

PRENATAL CARE*

By ASA B. DAVIS, M.D., F.A.C.S., NEW YORK, N. Y.

THE care of women during pregnancy is not entirely a new development. In the distant yesterdays there were private practitioners who devoted themselves largely to obstetric cases, with good results. They had no hospital facilities, no laboratories—except a few essential reagents and microscopes in their offices. These they used, not in the systematic routine which is followed in our time, but as indications then pointed to their need. It was necessary for them to be close clinical observers. They were the trusted family doctors and friends, almost members of the families which they watched over. They possessed a training and aptness for their work, guiding the majority of their patients safely through the process of reproduction, even though their repair work was woefully inadequate. They were outstanding men in advance of their times. Were they with us today they would use the knowledge and facilities which we possess, and which too many of us do not employ, and they would still be in the van in obstetric practise. We have such men, better trained, in every way better equipped, who are quietly doing creditable work in caring for obstetrical patients in their homes. There are not enough such obstetricians.

I believe it will be instructive to go back forty years and glance at the hospital facilities for maternity cases in this city. There was the Lying-In Asylum, since merged in the Nursery and Childs Hospital. Bellevue had about a dozen beds for emergency cases, the Charity Hospital on Blackwells Island had rather an active obstetrical service, Nursery and Childs Hospital, Infant Asylum, Foundling Hospital, the Brooklyn City Hospital, Long Island College Hospital and Kings County Hospital; in all, probably two hundred and fifty beds is a generous estimate.

Some of the general hospitals would occasionally admit maternity cases and care for them in the wards with other patients. In 1888, Sloane Maternity was opened and hailed as a step in advance. While it took high rank with the institutions of that time, and is among the best of today in practise, teaching and results, the early best, according to present standards, was not very good. Like the other maternities of that date, it had its share of sepsis, eclampsia, hemorrhage, morbidity and mortality. Prenatal care, as then known and practised, would be accorded too much dignity by even calling it a gesture.

Formerly, our immigrant population was of different stock, coming largely from the agricultural classes of northern Europe. They were more developed, intelligent, had lived better and presented fewer problems than those who swarmed in from southern Europe and the near east forty or more years ago. Many of these settled in the lower east side of New York, adding to the squalor already there, and presenting such examples of crowding, ignorance, filth in person and surroundings as would be difficult to find anywhere now. The midwife flourished. Not the type who had received long and careful training in the maternities of Europe, but usually the ignorant woman of middle age, who had reared her family, and without training taken up the duties of accoucheur, cook and housekeeper in the families which she attended.

In 1890 a group of men organized the Midwifery Dispensary which was merged three years later in The Society of the Lying-In Hospital of the City of New York, giving life and activity to this ancient organization which had been quiescent for many years. They began work in the tenements of the lower east side with headquarters in Broome Street, patterning their work at first after the out-door department of the Boston Lying-In Hospital. It was my good fortune to be called as lieutenant to this group of men, a few months after the organization of the Midwifery Dispensary, to act in the capacity of resident physician. The chief motive which actuated them was the training of undergraduate pupils in obstetric practise. The records show that during the first year 199 women were confined, in the second 955.

Upon looking back, it seems to me rather remarkable that these men possessed a vision which should materialize in later years into something like "prenatal care" as we understand it today.

For instance, at the beginning of the second year, and thereafter, a new form of history chart was employed which called for a detailed obstetrical history of the patient. Physical examination was made, and careful external and internal pelvimetry, height and weight were taken. The expression of the countenance, now too often written "cheerful" or otherwise, was noted; the idea being to quickly detect or call attention to the facies of possible tuberculosis, cardio-nephritis, richitis. Attention was paid to the attitude of the patient, searching for any readily apparent skeletal deformities, spinal curvatures, hip diseases and so forth. The breasts were inspected for changes due to pregnancy, deformities of the nipples, and as to the prospects of the mother being able to nurse her child. Measurements were taken of the height of the fundus uteri, and urinalysis done. Another chart called for notation of the salient points of labor in considerable detail, also the condition of the child, sex, weight, total and vertex coccygeal length, various circumferences and diameters. There were places to record the condition of the placenta, cord and membranes, any deformities or injury to the child and the condition of its circulation and respiration. There were still other headings calling for notations in regular order of the subsequent condition of mother and child. With few changes, this form of chart is in use at the present time. It was a comparatively easy matter to work out such charts on paper, but it was quite a different thing at first to induce prospective patients to submit to the examination called for. We were dealing with ignorant, apprehensive and easily frightened people who had been accustomed to treatment by midwives, or by doctors who had little or no time for, or belief in the necessity of observation during pregnancy, and were called in to attend the delivery and perhaps make a few calls thereafter.

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There was great poverty in the lower east side, and our first patients were those who came because obstetric care was furnished free of any charge. At first it was slow and uphill work to induce these women to become patients and submit to any kind of examination; many of the earlier cases were not examined very thoroughly. Often, when placed upon the examining table they would make a great outcry, thereby stampeding a dozen or more waiting patients. Gradually this state of affairs was overcome, the work grew rapidly and was limited only by the ability of our staff to care for these cases. One August we confined 357 women in their homes. As a rule these women made application during the last weeks of their pregnancy. An attempt was made to secure subsequent urinalysis by providing each applicant with a bottle, labeled with directions, to be returned at a given date. This was almost entirely unsuccessful. I mention these conditions to contrast them with our experience at present.

Now, our patients come gladly, and readily subject themselves to what must be a somewhat irksome series of questions by the history clerk, social worker, and, for the in-door patients, the financial clerk. They willingly allow examination without complaint, apply earlier in their pregnancy, and nearly all return at stated intervals as directed for observation, instruction, urinalysis and blood pressure. From 2 to 3 per cent of the applicants show positive Wassermann. These receive systematic care from a specialist in the hospital.

Our patients seem eager to co-operate and learn everything possible that will aid them in doing their part to take proper care of themselves during pregnancy. These results have been attained only by gradual education of the people seeking free or nearly free hospital care. Like instruction is going on in similar institutions. These women would not submit to the expenditure of time and necessary inconvenience had they not learned to believe that by so doing they were securing something of great value.

Up to eight or ten years ago, as we had long believed and have since tested, something was lacking in the care of our pregnant women. Early in our history, in the case of patients whose examinations showed deformed pelves, cardiac disease, nephritis, the presence of new growths and so forth, an abnormality chart was affixed to the usual chart of pregnancy. This was well as far as it went, but the follow up of such cases was not systematic, and too often the value of these observations was lost on this account. In all branches of medicine it had long been felt that hospital and dispensary patients especially suffered a great loss by the failure to follow up and advise them until they were restored to health; and that doctors, in their turn, were deprived of much valuable knowledge because in too many instances they were unable to know the end results. While this need had been recognized and discussed for several years, the appearance of a remedy in practical working was comparatively sudden all over the country. Some institutions were able at once to establish a complete social service and follow up system to account for every patient and, from time to time, such patient's condition. The great benefit derived from this course was at once apparent. The better maternities throughout our country have achieved almost startling results by adopting this plan, designated as "ante-partum" or "prenatal" care, and it is safe to say that in the last six years the appearance of convulsive toxemia in such institutions has been reduced by at least 75 per cent. Other complications of pregnancy have, in many instances, been detected in their incipiency and corrected before they became serious. This, I take it, is good preventive medicine.

In this connection I think it is illuminating to quote from an article written by Dr. James A. Harrar, of the Staff of the Lying-In Hospital, Dr. Harrar says: "The incidence of recognized severe toxemia as expressed in cases admitted to the wards for treatment has increased. In 1919 there were nine; in 1920, eleven; in 1921, twenty-eight; in 1922, forty-two; in 1923, thirty-one. and in the first six months of 1924, twenty-eight. While we have been discovering and recognizing more toxemia, we find to our great satisfaction the incidence of the convulsive type, eclampsia, has extraordinarily decreased. Formerly we would have forty and fifty cases every year, but in 1919 we had twenty-seven cases; in 1920, twenty-three; in 1921, twenty-two; in 1922, eight; in 1923, thirteen, and in the first nine months of 1924, nine. Perhaps an eclamptic convulsion can develop without warning, but in a pregnant woman whose careful prenatal instruction has taught her proper living and on whose urine and blood pressure timely observations have been made, it is extremely rare. During six months in 171 emergency labors, one in every eighty-five had eclampsia, while in 2,515 regular applicants in the same period who had more or less prenatal care, eclampsia occurred in only one of four hundred and twenty cases. The latter all gave warning signs of a developing toxemia. We can by no means always prevent eclampsia, but we usually can anticipate its occurrence." Adding to these statistics up to December 31, 1925, we find that for the whole year of 1924 there were thirteen cases of eclampsia, four being emergencies, and during 1925, eleven, three of which were emergencies. Similar experiences are being reported from maternities throughout the country where prenatal care is carried out. The results achieved in gaining better control of this one complication of pregnancy well repays all efforts expended in prenatal care.

It would be difficult to summarize all of the other good results. Patients apply earlier in their pregnancy and keep themselves in better condition. There are fewer cases of threatened abortion and, where this threat does appear, more are successfully treated and carried on to full term. The cases of pyelitis are detected earlier, cardiacs are supervised with more satisfactory results; pelvic deformities and disproportion between the pelvic capacity and the unborn child are foreseen; there are fewer premature births, and thus we could go on throughout the entire list of abnormalities which may occur during pregnancy.

I think the reports of several cases are instructive. About two years ago, two multipari were admitted to the wards of the Lying-In Hospital on the same day. One had applied previously, been examined and instructed to return at regular intervals. This she failed to do and was lost trace of, being brought in about four months later in labor, a well developed eclamptic. The second patient was seen for the first time by a physician in the suburbs who recognized her condition by blood pressure and urinalysis. Within a few hours she also was admitted to the hospital, soon developing convulsions. Both of these women were delivered. In each case there was suppression of urine, all symptoms became worse and, failing to respond to treatment, died within a few hours of each other, thirty-six hours after admission to hospital. They had both been delivered of several children without trouble. Doubtless, pressure of work and the care of their families, and the fact that they had safely passed through previous confinements, made them neglectful of their condition. One, contrary to advice, the other having had no supervision whatsoever. In each case, a family of young children was left, the mothers dying unnecessarily.

Several months ago a primipara nearly at full term was brought to the hospital in an ambulance, having repeated convulsions and showing all the well marked symptoms of toxemia. She had received prenatal care regularly from early pregnancy, having visited the hospital ten days before when observations were made without revealing any untoward symptoms. She recovered, but the child was stillborn, due, so it was supposed, to intoxication. A private case, a primipara pregnant with twins, under regular observation showing discomfort and moderate oedema. On February 2, blood pressure was 110, and there were faint traces of albumin in the urine. This has been present throughout pregnancy and was probably due to vaginal contamination. On February 16, blood pressure was 134. There was marked swelling and pain in the lower right extremity, also some headache. Urine report received on the 17th showed the presence of a large amount of albumin, hyaline and granular casts and considerable pus. This patient lived out of town but appeared at the hospital in response to a call about four hours after the report had been received. Blood pressure at that time was 150, and urinalysis similar to that already mentioned. Although two weeks from calculated full term, her abdomen was so large and tense, and the symptoms so sudden and alarming that induction of labor was begun shortly after her admission. Eleven hours later there was evidence of fetal distress, uterine contractions were forcible and frequent, cervix dilated to about 4 cm., and blood pressure 165; there was headache and occasional flashes before the eyes. Delivery was by lateral incisions of the cervix. The first child was delivered by medium forceps, and some of the delay in dilitation accounted for by posterior position and a very short cord. The second delivery was by version. Each child weighed between five and six pounds and was living. The cervix was repaired and in a few days all untoward symptoms disappeared. It is fair to say in this case that great added nervous strain was placed upon the patient owing to the serious illness of her husband. However, it seems to me that these histories point to the advisability of observation being made at least once a week during the last month of pregnancy. In this case eclampsia was undoubtedly averted.

Over a period of twenty-five years or more there has been a progressively increasing interest in and provision for obstetric cases. This is not limited to any locality but is general through the whole country. The bed capacity for maternity patients has been expanded by many thousands, and attention focussed upon this branch of medicine which is being studied not only by those in charge of maternity services, but by medical and lay, public and semi-public organizations. Thus we find in 1921 the American Association of

Obstetricians, Gynecologists and Abdominal Surgeons, at their annual meeting, appoint a committee on maternal welfare which has since been working in conjunction with a like committee appointed by the American Gynecological Society. The reports of this committee give evidence of intensive study and far-reaching work. The scope of this paper does not permit more than brief excerpts from these reports. In one place we read: "Due to long and active efforts at prevention, Birmingham (England) has the lowest rate of morbidity and mortality of any large city in the world. That city, according to the *Bulletin,* Department of Health, New York City, May, 1921, during the years 1915 to 1921, shows a death rate from puerperal causes averaging 31.94 per 10,000." Further on we note: "The State of New York, 1915 to 1921, inclusive, shows a death rate from all puerperal causes averaging 54.9. In New York City the rate was 46.1. Puerperal septicemia mortality in New York City for the period was 30 per cent of the total mortality. Maternal mortality from all causes varies but little in New York State; while there was an increase in 1918, due, doubtless, to the prevalence of influenza, the average for the five years was 14.4. In puerperal sepsis in 1919 New York City showed the world's low record of 11.4 per 10,000." And also the following: The report of Dr. Alfred C. Beck of Brooklyn, in a paper entitled 'End Results of Prenatal Care,' gives a table of comparisons of three series of 1,000 cases each, with the following results:

Series 1. No prenatal care—stillbirths, 35; infant deaths, 41; total, 77.

Series 2. Visiting nurse, but no physician—stillbirths, 25; infant deaths, 22; total, 47.

Series 3. Prenatal care throughout, under medical supervision—stillbirths, 19; infant deaths, 6; total, 25."

These statements deal briefly with the conditions in New York City and State. Reports are made from many other states and large cities. The whole report of this committee is worthy of most careful study. Birmingham, England, is a large manufacturing town. It undoubtedly has slums as well as all other grades in the social and economic scale; yet, according to the report, it maintained its enviable record over a period of six consecutive years. I cannot believe that the results obtained were brought about by one group, but were arrived at by concerted effort and co-operation of doctors, nursing organizations, maternal and health centers, and a guided and instructed public, While we cheerfully give all allowable credit due to prenatal care, and it is much, we cannot ascribe the great achievements in obstetrics in recent years wholly to this phase of the work. If New York City has shown the report of maternal mortality as stated above for 1919, I am confident that this is far beyond its irriduceable minimum. The results can be made far better than this report shows.

In maternities where prenatal care is the rule, bed capacity is taken up for months in advance and in this way the possibility of admitting many emergency cases is reduced. Better results is the experience in such institutions until those who are responsible for these results feel a possibly not-too-well-founded assurance that obstetric practice as a whole has improved. While to some extent this is true, such confidence is too often rudely shaken. Thus, at the present time there is a patient in the wards of the Lying-In Hospital, slowly recovering. She was admitted as a emergency case giving a history of several days' labor, unsuccessful attempts at high forceps and craniotomy, showing a mutilated and infected vagina and cervix, third-degree lacerations of the perineum, a vescico-vaginal fistula, and an undelivered, mutilated, dead fetus.

One needs but to enquire at the maternities of our city hospitals where emergency obstetrical cases in considerable numbers and many in desperate condition must be admitted; or to do consultation work in obstetrics, to be impressed with the amount of dreadful work, and the woeful lack of care thus made evident here in our city today.

Several months ago a committee on public health and hygiene met in New York and issued a brief report in the public press, which stated: "Although great progress has been made in the care of maternity cases in some areas, there has been no improvement in obstetric results, in the country as a whole, during the past twenty-five years." The committee on Maternal Welfare of the American Association of Obstetricians, Gynecologist and Abdominal Surgeons states that annually in this country sixteen thousand women die in the process of childbirth. J. S. Herbert, M.D., of New Orleans, presents a paper in the present March number of the *American Journal of Obstetrics and Gynecology*: "A Critical Analysis of 250 Prenatal Charts." This paper should be carefully studied. Dr. Herbert states: "Conservatively estimated, 25,000 women die every year in this country from immediate or remote effects of childbirth. Approximately 8,000 from infection, 5,000 from eclampsia and 4,000 from hemorrhage. And all these deaths, if not preventable entirely, are at least capable of being greatly reduced."

In obstetric records in eighteen nations studied, the United States, as a whole, ranks among the lowest. While this is undoubtedly true, yet there are maternities in this and other cities of our country which achieve unequaled results. It is probable that in the future these results will be surpassed. A few statistics are instructive. These particular hospitals are selected because the records are conveniently at hand. Like results can undoubtedly be found in the reports from some other hospitals.

WOMAN'S HOSPITAL

1923—Confinements	1103
Maternal deaths	8
Stillbirths	44
1924—Confinements	1207
Maternal deaths	3
Stillbirths	56

(Entirely indoor service. Something over 50% private patients.)

MANHATTAN MATERNITY AND DISPENSARY

1923—Confinements	1334
(Indoor, 814)	
(Outdoor, 520)	
Maternal deaths	1
(Cause unknown, during anaesthesia)	
Stillbirths	35
1924—Confinements	1358
(Indoor, 961)	
(Outdoor, 397)	
Maternal deaths	3
(Eclampsia, rupture of uterus) (Pernicious vomiting, 1 each)	
Stillbirths	47

SLOANE HOSPITAL FOR WOMEN

1924—Confinements	1595
Maternal deaths	18
(Emergency cases, 9)	

NURSERY AND CHILD'S HOSPITAL

1924—Confinements	2277
(Indoor, 1833)	
(Outdoor, 444)	
Maternal deaths	9
Stillbirths	83
(Indoor, 74)	
(Outdoor, 9)	
(Of these, 53 were either macerated or premature)	

LYING-IN HOSPITAL OF THE CITY OF NEW YORK

1924—Confinements	5463
(Indoor, 3813)	
(Outdoor, 1650)	
Maternal deaths	23
(Indoor)	23
(Outdoor)	0
Stillbirths—Unclassified.	

BROOKLYN CITY HOSPITAL (5)

13 deaths in 2000 consecutive cases..........0.65%

Causes of Death

Pulmonary embolus	5
Nephritic toxemia (acute)	3
Eclampsia (Fulminating) (undelivered)	1
Puerperal septicemia (Streptococcus)	1
Long labor (64 hours) shock—retraction ring	1
Concealed hemorrhage	1
Peritonitis following vaginal hysterotomy for nephritic toxemia	1
	13

The nurse who carries through instruction and advice in informal talks with pregnant women is a very important factor in prenatal care. There is a rapidly growing public which receives prenatal observation and guidance. There must still be a vast public which is indifferent, ignorant and careless. Nor is this limited to the lay public. There is far too large a contingent of the medical profession which come under this heading.

The excuse is often made that the bad obstetric results are chargeable to the rural districts. In part this may be true, but it is the whole truth. No worse results can be found than those often witnessed in cities. In the maternities showing the best results, there is still room for improvement. At least, they have shown the way in which progress is being made. The lack of hospital facilities is given as another explanation by the private practitioner. This excuse is not valid. Any procedure in obstetrics, even Cesarean section, can be successfully conducted in the patient's home. Complications are more conveniently managed, observed and nursed in a well equipped hospital. Out-patient departments care for thousands of women in their clinics and deliver them in their homes. Much of this work is actually done under supervision, by doctors and pupils whose training is not far advanced, for patients and in surroundings quite as unfavorable as any to be found in private practice. The results differ very little for the various institutions and are surprisingly good. In morbidity and mortality they rival those of the indoor departments.

Several years ago, during four and a half consecutive years, in the Out-door Department of the Lying-In Hospital, between ten and eleven thousand women were confined in their homes without one maternal death. Of the complicated cases sent into the hospital during this time, twenty died. A maternal mortality of five-tenths of one per cent.

Great responsibility rests with the obstetrician. This cannot be delegated to nurses or lay organizations. It is very important to secure a thorough history of the pregnant woman. The primipara is, obstetrically, an unknown quantity. But a reasonable forecast of the outcome of her confinement can be arrived at by careful observation and examination. It should not be possible in this day and age for a woman to continue having stillbirth after stillbirth, or terribly injured children, because of disproportion between pelvis and fetus. Pregnancy continues over many months. During that time more of the gross complications which will appear at confinement, than is now the case, should be foreseen and provided for in advance. More doctors who practice obstetrics need to take honest account of themselves and recognize their inadequate equipment in obstetrics, learn to keep their hands off complicated cases to the end that fewer of these are admitted in labor, or infected by careless unclean examinations, or with mother and fetus mutilated by unsuccessful attempts at operative delivery made by those whose training in no way entitles them to the assurance which they manifest in undertaking such operations, too often after several days of labor. Large order as it is, I can conceive of no one thing which will do more towards better results in obstetrics than the doing away with the "emergency" case. Seeing to it that every pregnant woman in our land is given adequate prenatal care. It will take years for the forces now interested to accomplish this. In the meantime thousands of women are dying unnecessarily. So long as these deaths are numbered by thousands each year, it matters not whether it be fifteen or twenty-five thousand. We accept this state of affairs with complaisance, as we would not were the lives of these women suddenly wiped out in some small area. We need rousing, awakening to a vivid realization of this largely avertable catastrophy which is now, today, taking place. The responsibility rests with doctors, various organizations, with each individual of the community, with all of our people.

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PRESENT DAY ASPECTS OF MIGRAINE*

By EDWARD F. HARTUNG, M.D., New York, N. Y.

HEADACHE is a symptom associated with such a great variety of disturbances that the diagnosis of the underlying cause in a particular case leads one practically through the entire field of pathological states. In any attempted classification of the different types of headaches the symptomatic headache must be eliminated in order to bring some order into the complex problem. In the group of headaches which are not merely transient and symptomatic there are those which are due to a definite traceable pathology such as meningitis, tumors, hydrocephalus, arterio sclerosis, etc. Of the group of headaches in which no definite pathology has yet been generally accepted, migraine easily demands our first attention. It stands out because of its peculiar and baffling nature, and the importance of its being recognized not only in the typical cases but even more so in the abortive and atypical cases.

For a number of years the problem of headache has been made the subject of study in the medical department of the Post Graduate School in New York. Lately I have had the opportunity in collaboration with Dr. Ludwig Kast at the hospital and in private practice to study a series of patients whose main and outstanding complaint was headache.

Diagnostic classification of these patients runs as follows:

Diagnosis	Number of Cases
Migraine	50
Nose and Throat Conditions	22
Eye	7
Ear	3
Respiratory Conditions	4
Gastro-intestinal	32
Gynecological	35
Neurological	16
Hypertension	12
Rheumatic	18
Miscellaneous	10
Undiagnosed	43

In this series migraine constitutes about 20% of the total number. Let me emphasize again that this series includes only patients whose outstanding and usually only complaint was headache. I think this accounts for the small number of cases due to eye strain, constipation and some of the other common causes, for in these cases the patients frequently make their own diagnosis and seek relief directly at other than the medical department for the causative factor.

First, I wish to review briefly the distinguishing features of this type of headache, especially for the reason that by some it is felt that migraine is not a distinct clinical entity at all. However, after a careful study of headache patients, it seems to us that the clinical picture of migraine stands out as clear cut as most recognized diseases.

Briefly, migraine is an hereditary malady characterized by recurrent severe headaches. Begin-

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* Presented before the Buffalo Academy of Medicine by invitation on October 27, 1926.

ing as a rule in early life, the attacks usually cease or change in character spontaneously at the climacteric. They come with varying periodicity, are of short duration, with intervals of ordinary well being between the attacks. With the headache there is usually associated nausea and vomiting and at time visual and vague somatic disorders, and lastly its recurrence is independent of those accidental causes which determine other kinds of headache.

It is now beyond doubt that migraine is in a very large majority of cases an hereditary malady. It is rather unusual on close questioning to find a patient suffering from migraine who does not give a familial history. Buchanan, after a statistical study of hereditary migraine at the Mayo Clinic, claims that the heredity follows the Mendelian law of inheritance. His work is extremely interesting and if verified would lead to many important conclusions. For example, the migraine tendency would have to be considered as an innate constitutional characteristic as deeply set and as ineradicable as the color of the hair, or tallness or any other inherited feature.

The location of a headache is important from a diagnostic viewpoint, but there is no rule of thumb for determining the cause of a particular headache by the position. All unilateral headaches are not migraine and all migraine headaches are not unilateral. Headaches resulting from a one-sided sinusitis give beautiful pictures of hemicrania. So also does glaucoma. The so-called rheumatic or neuralgic headaches and the indurative headaches are usually one-sided. On the other hand, migraine headaches are frequently bilateral or alternating or deeply centrally located. As a matter of fact, the pain of migraine is usually so intense that the patient finds difficulty in localizing it.

The nausea and vomiting, which frequently accompany an attack are usually so outstanding that the rest of the symptom complex is often overlooked by the physician. He attributes the attack to some digestive disorder. Many a case of migraine is buried under the vague blanket diagnosis of biliousness. Beyond the fact that bile-stained mucus is brought up after prolonged wretching there is nothing but a hypothetical disorder of the liver. It is true that chronic cholecystitis is at times met in association with migraine, and this may act as an exciting factor in producing attacks, but it cannot be the fundamental basis of the malady. We believe that this vomiting, coming at the peak or climax of the paroxysm, is cerebral or reflex in origin because in the usual migraine case there is no consistently demonstrable gastro-intestinal disorder, functional or organic.

The visual disorder in migraine has always attracted particular attention. Its main characteristic is a blind area usually to one side of the centre of vision, coming as a rule at the onset of an attack. These are usually described as scintillating, or like a redoubt or fortification. They are of short duration, in the typical case lasting from fifteen to thirty minutes. Many explanations have been offered, the most widely accepted being that the disorder is due to a disturbance of the cerebral circulation of the visual area. Our belief, however, is that these visual symptoms are caused by pressure of the physiologically enlarged pituitary on the optic chiasm.

But perhaps the most important ear mark of migraine is its periodicity, extending over the greater part of the patient's life, the attacks as a rule being unassociated with the ordinary causes of headache, such as constipation, eyestrain, etc.

Just as important as the recognition of the typical migraine outlined above is the recognition of the migrainous tendency in its various atypical and abortive forms. It is rather common to see patients who have periodic attacks of scintillating scotomas without the development of headache. Also there are cases where headache alone or vomiting alone or mental confusion and aphasia alone constitute an attack. The makeup of the individual, his family history, together with occasional complete attacks give a key to the diagnosis.

Abdominal migraine has been described but the diagnosis is of doubtful standing. Epilepsy and glaucoma are from time to time considered as late developments of migraine, but discussion of this point is beyond the scope of this paper.

A review of the literature on migraine reveals a multiplicity of alleged causes for the malady. There is hardly a human disorder that has not by some one or other been suspected of being the basis for migraine. In late years there is a tendency for each specialty to claim migraine for its very own. The eye men claim that it is due to refractive errors; the nose and throat specialists that it is due to infected tonsils and sinuses, deflected septums and irritated spheno-palatine ganglions. Constipation is a convenient category to which to assign these patients, as well as chronic cholecystitis. Various pelvic disorders, ovarian, uterine, and menstrual are blamed. Protein fat, and carbohydrate has each been blamed. Excess uric acid, a deficiency in calcium, nitrogen retention, and hyperbilirubinaemia are mentioned. Focal infection is, of course, mentioned as a cause for this as for many other diseases.

None of these explain migraine. It is unreasonable to claim that an abscessed tooth or a cholecystitis, or any other recently developed pathology, is causing a migraine which has had its inception in early childhood and continues to the climacteric. The very nature of the malady stamps it as deep set constitutional disorder.

Constipation or eyestrain or a retroverted uterus may be the immediate exciting cause of a particular migrainous attack, but this is not the fundamental explanation. For example, a patient with migraine may have an attack due to constipation at one time, emotional stress at another, or carbohydrate excess at another time. In short, removing the immediate exciting cause will almost never entirely effect a cure. The medical histories of some of these patients are pitiable indeed. Frequently they have run the gamut of medical and surgical specialists, they are wearing glasses, have had two or three nasal operations, have borne with great patience all kinds of diets, possibly have had their appendicies and gall-bladders removed, and yet they still have their headaches.

As to the theories of migraine which seek a more fundamental explanation must have merely an historical interest. Only two need our attention now. One is that migraine is a manifestation of a vasomotor disorder of the cerebral circulation, either transitory hyperemia or anemia or both alternating.

The other theory to which we ourselves are inclined is that migraine is a pituitary disorder, and proof is gradually accumulating to place this idea on firmer ground. Due to extra demand on the organism, the pituitary is called upon for an increased output of its secretion and with the acceleration of its activity becomes engorged and enlarges. Being inclosed in an inexpansible bony cavity, the sella tursica, its enlargement causes pain. The outlet to the sella is superiorly and here the optic chiasm is situated. De Schweinitz, in a recent monograph has shown that the chiasm is frequently in direct relation with the superior surface of the pituitary gland. Pressure on the chiasm could anatomically account for the visual symptoms, the scotamas, and hemianopsias so often seen with migraine.

Many elements of the migraine constitution readily suggest an endocrine association, for example, the onset of the malady around puberty, and its cessation around the climacteric. Also the fact that women, while they may have an attack at any time, frequently have one around the menstrual period. Another interesting observation is that women who become pregnant are very apt to be practically free from attacks for the entire nine months, and after parturition the attacks will recur. This is not an invariable observation, but is common enough to be distinctly significant. Many factors in the symptom complex and the makeup of the patient suggest a pituitary disfunction. Such, for example, are the sympathetic nervous suppression or atonia exhibited by the low blood pressure that these patients usually present, the general asthenia, low fatigue threshold, extreme reaction from loss of sleep, and susceptibility to carbohydrate excess. During the attack there is apt to be slight diarrhea, irritable bladder, a still lower blood pressure, a slow pulse and pallor. All these suggest a vegetative nervous disorder, a suppression of the sympathetic tone, and more fundamentally suggest to us a dispituitarism with hypo-pituitarism predominating. It is to be recalled that the hypophysis, in association with the thyroid and the suprarenals, stimulates the sympathetics, a suppression of its activity leading to vagotonia. An attack of migraine would be considered an attempt on the part of the hypophysis to assist the control of sympathetic system when it becomes too attenuated.

We have X-rayed a large series of sella tursicas in these cases. The X-ray technique of taking the sella is variable, the apparent size of the sella being dependant almost entirely on slight variations of focal distances and angles. Besides no mathematical method of comparing the size of sellas as they present themselves in X-rays has been worked out. However, it is our distinct impression that the sellas in migraine patients are predominantly small, giving little room for expansion except upward. When an extra demand is made on the pituitary for an increased output of its secretion it has little room for expansion in a small sella.

It is true that while pregnant women are apt to be free from attacks of migraine, their pituitaries are definitely larger in size and weight. But this enlargement is a slow process in pregnancy and may not give symptoms, just as slow-growing cerebral tumors frequently do not cause disorders until decidely large.

As to other laboratory observations in migraine one finds the patient peculiarly normal, considering the severity of his attacks. For centuries there has been in the minds of medical men a vague association between uric acid and migraine. Our series fail to show it. We were also interested in the blood calcium, sodium and potassium in migraine patients. It is quite certain to us that there is a definite autonomic nervous system disorder in migraine, and varying proportions of these substances are supposed to regulate the sympathetic-parasympathetic balance. Our figures, however, were not significant of any abnormal variations either between or during an attack. Our data along these lines is to be published shortly.

In considering the treatment of migraine one is reminded of Dr. J. L. Tierney's rueful remark that migraine is philosophically interesting though therapeutically pride-breaking. However, I feel that we can markedly ameliorate the condition. We can make the attacks much less frequent and much less severe.

For the individual attacks the best we can do is to treat them symptomatically. Coal tar products usually in combinations give the best results. The headache is at times so severe that nothing but morphine gives relief but morphine should never be given. A dark room, rest, quiet and resignation on the part of the patient complete the treatment.

But between the attacks a patient should be subjected to an exhaustive examination and all outstanding pathology should be removed, but the necessity for operation should be weighed with great care. Intestinal hygiene should be the first line of attack. The treatment of constipation will not cure the patient but will contribute to make the attacks less frequent. Emphatically I do not think there is any special diet for migraine. The diet to be recommended should depend on the abnormal states, if any found, such as intestinal putrifaction, fermentation, or cholecystitis.

The next line of attack should be directed against focal infection. Abscessed teeth, diseased tonsils, pus in the urine, etc., are definite contributory factors in migraine. Also correction of gynecological abnormalities is of extreme importance.

All this, of course, may be suggested for almost any medical condition, but a vigorous approach is especially important in migraine, because one is working in the dark, as it were, hoping that one may hit upon the irritating factors.

An extremely important duty is to impress upon the patient the realization of his low fatigue threshold, and this applies not so much to fatigue due to laborious work or exercise as to work associated with mental and emotional stress.

As to the drugs and medicines recommended for migraine, most will be found wanting. The list would include luminal, bromide, cannibus indica, caffeine, strychnine, pilocarpine, ergot, atropine, nitroglycerine, calcium preparations for oral and hypodermic use, peptone injections, horse serum, placental extracts, and many others.

Endocrine therapy, however, gives some remarkable results at times. One is lead by the predominating endocrine disorder, if any, found. In accordance with our theory of the pituitary roll in migraine, we gave pituitary gland products a thorough trial, and recommend that you use them as an adjunct to your general treatment. One may give the pituitary hypodermatically, or by oral administration. In the former case we give ½ to 1 c.c. of anterior lobe extract, together with half that amount of porterior lobe extract For oral administration, which is just as efficacious, in some cases, we give 1/20th of a grain of the whole dried gland three times a day. Small doses are advisable because they can gradually be increased, and large doses make the attacks more frequent. One may well be sceptical in believing that such a small dose as 1/20 of a grain has any physiological rôle whatever. But we feel that it has a decided effect on the organism. An interesting effect, not especially desired, which we have observed is that immediately on beginning the administration the bowels are somewhat loose. This effect lasts two or three days and then disappears. It is not noted in every instance but it has been such a decidedly recurrent observation that we cannot consider it a mere coincidence. Of course, in our cases where pituitary was tried, no other therapeutic measure or advice was given. Some patients received no benefit whatever from pituitary administration, but in most cases there was marked improvement with less frequency and less severity of the attacks. We have four patients who have had no attacks after the commencement of pituitary therapy. We continued the treatment for six months and they now have had almost three years of relief. In brief while pituitary is not at all a cure for migraine it usually ameliorates the situation.

Now it is to be remembered that a hypofunction of the hypothysis may be accelerated by stimulation of other endocrine glands which are known to be definitely linked to it, notably the thyroid, adrenals, and the gonads. Remarkable benefit in migraine is at times obtained by administration of thyroid or ovarian substance or corpus lutein, if the history and constitution of the patient indicates their need.

In conclusion permit us to say that this paper does not pretend to relate anything newer or more startling than a viewpoint. The age-old problem of migraine is still unsolved, but we feel we are gradually groping our way to an understanding of this interesting disorder. Its final solution awaits a further elucidation of endocrine and autonomic mechanisms. But at present let us at least recognize the condition when we are confronted with it, not only in its typical manifestation but—of even more importance, in its various atypical forms.

A PLEA FOR BETTER REPORTING TUBERCULOSIS CASES

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A STUDY of the completeness of reporting cases of tuberculosis in this State, and a comparative study of our reporting, with records of other states, shows that there is much to be done if New York State is to assume the coveted first place among all of the states, in this phase of public health work.

During 1924, New York State stood fifth among the states in the number of reported cases per one death in that year. If we adopt three reported cases per death in a given time as an accepted minimum ratio, there were only two states in the Union which had reached that goal, namely, Kansas, which had 3.3 cases; and Maryland, 3. Next was Illinois, 2.7; Minnesota, 2.6; Hawaiian Islands, 2.4; and New York, 2.1.

A study of 4,259 deaths occurring in New York State showed that nearly one-half of the cases which terminated in death had not been reported when death occurred, and less than 25 per cent of the total had been reported more than a year before death. Pulmonary cases were reported better than other forms, such as bone and joint, gland, or intestinal. The importance of reporting cases of non-pulmonary disease apparently is not appreciated by many physicians. Every case of tuberculosis should be reported, whether it be bone, gland, peritoneal, meningeal, or otherwise.

Economic conditions, as well as preventive medicine, have had a definite influence on the reduction of the tuberculosis death rate. Although we have every reason to be encouraged by this reduction, the question is, have we as physicians done our part in every instance to prevent the spread of this disease?

None of us deny that tuberculosis is a communicable disease, yet we may hesitate to encourage or carry on a study of conditions which have been instrumental in making our patients ill. When practicing physicians discover a case of tuberculosis, they rarely have the time necessary to conduct an epidemiological study. If they find it impossible to conduct such a study, they should seek the assistance of the public health nurse, through the health officer or the superintendent of the county sanatorium, if one be located in their county. A thorough study of family and other contacts will many times be the means of discovering the focus from which this disease has been transmitted. A child with tuberculous glands may respond to treatment resulting in apparent cure, and surgery or extension of disease is avoided. However, unless the focus from which this child received the infection is removed, other children may become victims of the disease with fatal results. Many times this focus is in an adult member of the family who is ignorant of the presence of any disease. Proper investigation and recommendations may not only be the means of eliminating further spread of infection, but many times will be instrumental in securing treatment for such a person.

Physicians in private practice can do much to assist the public health officials in placing New York State in the lead in this phase of public health, by reporting promptly to the local health officer all cases of tuberculosis, in any form, within twenty-four hours after the diagnosis is established.

The superintendents, or those in charge of hospitals, dispensaries, public or private institutions, are also required by law to report every patient having tuberculosis in any form, who comes under their observation, within twenty-four hours thereafter.

Every physician, except those who are employed in a hospital, sanatorium or similar institution, who is willing to enforce the "Procedures and Precautions" which are noted on the reverse side of the report card, and so indicates at the time of making the report, is entitled to a fee of one dollar from the community in which the patient resides. In the event that the attending physician is unwilling to assume the responsibility, it then becomes the duty of the health officer to enforce these procedures and precautions.

In order to improve reporting the following suggestions are offered:

(a) An *educational campaign* which will reach physicians through medical journals, county medical societies, direct communications from local health officers, etc. This campaign to be carried out in cooperation with the State Department of Health, State Medical Society, The State Committee on Tuberculosis and Public Health, and by local tuberculosis associations, local health officers, county medical societies and others.

(b) *Regular and systematic inspection service* by the Division of Tuberculosis of the State Department of Health, of records for cities and for institutions, with studies of case reporting and suggestions to city health officers for improvement in case reporting, including regular systematic check of cases found in institutions against reported cases.

(c) *A regular and systematic check of tuberculosis deaths* against reported cases by the State Department of Health with stimulation of health officers in cities to secure adequate reports, and direct correspondence with health officers and physicians in towns and villages in order to stimulate early reporting.

(d) *Legal procedure* through the health officers and local boards of health for repeated violations of the law provided under Section 320 of the tuberculosis law.

EDITORIAL

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For list of officers of County Medical Societies, see this Journal, advertising page xxx.

OFFICERS OF COUNTY MEDICAL SOCIETIES

The County Medical Society is the unit of organization of the Medical Profession of New York State; and its President, its Secretary, and its Treasurer constitute the County Society in nearly all matters in which any one has dealings with the Society. A correct list of these officers is therefore of great value. Such a list is published on advertising page xxx of this Journal.

This, the fifth issue of the Journal since the officers for 1927 were inaugurated, is the earliest issue in which the list could be published, because the lists of some societies were received only recently.

The officers of many County Societies have also omitted to send news of the meetings. Those of only twenty-nine societies were received during 1926, and every one that came in was printed.

News of the County Societies should be one of the most important features of this Journal, especially when the societies do good scientific work, or take progressive actions.

THE LAENNEC EXHIBIT

The New York Academy of Medicine has an exhibit relating to Rene Theophile Hyacinthe Laennec, who, one hundred and ten years ago, invented the stethoscope—the distinctive insignia and equipment of the modern physician and the revealor of internal functions of the living body.

The distinction of Laennec is that from his brain there sprang full grown a new branch of medicine, that of physical diagnosis. One reading his books gets the impression of modernity, even to the nomenclature of the physical signs.

Laennec was a profound student of pathology, and an expert in the art of practicing medicine. He coordinated the findings of the autopsy and operating rooms with those signs which may be discovered on the living body. He was a musician and a poet, and he adapted his keen ear and his gifted imagination to the development of a new art of which the stethoscope was the symbol and the practical instrument of precision.

The Laennec exhibit occupies a long glass case extending across the library of the Academy. It contains about seventy-five articles, mostly editions and translations of Laennec's books. His principal work was entitled "Medial Auscultation," and covered the diagnosis of diseases of the heart and lungs. He says that the idea of the stethoscope came to him while he was attempting to listen to the heart of a fat woman. He recalled seeing some children amusing themselves by applying a stick to the ear and listening to scratchings done on the other end which were inaudible to the naked ear. He rolled a sheet of paper into a tube and through it found that he could hear the heart sounds with magnified distinctness.

Laennec's stethoscope consisted of a short hollow tube about twice the size of a lead pencil, and with a shallow cup on each end. There are physicians today who prefer this form of stethoscope to the form ordinarily in use.

The principal events of Laennec's life were as follows:

1781—Born in Brittany.
1795—Began to study medicine at Nantes.
1799—Army surgeon in a Nantes military hospital.
1801—Resumed his medical studies—this time in Paris.
1802—First medical publication—on the ossification of the mitrol valve.
1804—Graduated from the Paris Faculty.
1802—Pathological studies.
1814-16—Assistant physician at the Saltpetriere.
1816—Chief of the medical service at the Hospital Necker, and invented the stethoscope.
1819—Published the first edition of "Traite de auscultation mediale."
1820—Retired for a rest.
1822—Returned to Paris and was made professor of medicine in the College de France.
1824—Married.
1826—Published a second edition of his great work.

Laennec died in 1826 at the age of 45 of pulmonary tuberculosis. He himself says that he considers that he caught the disease through a finger which was infected while doing an autopsy, and which developed a mass of tubercles.

Laennec was learned in the classics. He wrote Greek and habitually used the Latin language in teaching his pupils. Although he was small in stature—five feet three inches tall—yet his personality and attainments commanded the respect and love of his associates, and the reverence of all physicians through the succeeding years.

BLEEDING IN THE TREATMENT OF GEORGE WASHINGTON

The charge has frequently been made that physicians were responsible for the death of George Washington because they treated him by excessive bleeding. The abstract of an article by Dr. W. A. Wells, printed on page 258 of this Journal, shows that Washington suffered from acute edema of the larynx—a condition for which bleeding was the only known remedy at that time.

There is a scientific foundation for bleeding. A depletion of the fluids of the body is likely to cause the absorption of the fluid from the edematous larynx. The experience of eminent physicians proved that this expectation was sometimes realized. However, a modern physician, knowing the virulence of the streptococci, could not expect the subsidence of the edema to cure the patient, for the virulent toxins would still remain in the body.

The truth is that the physicians who treated Washington applied the best medical skill available at the time. The bleedings which they performed were based on scientific facts which today are recognized as sound. Bleeding today is recognized as a desirable procedure which physicians do not apply, even in suitable cases, because of the sentimental objections to its application by both physicians and laymen.

The scientific basis for bleeding is discussed on page 234 of this Journal, in a review of a book describing the diseases prevalent in Dutchess County ten years after the death of Washington.

WEIGHT REDUCING

Physicians and dictators of fashion both decree that slimness of figure is correct for health as well as good looks. How to reduce weight is an approved topic of parlor conversation, and the popular answer is, to avoid fattening foods, and foods which are "rich," whatever that means.

The people expect to achieve slimness and long-windedness by doing a brief penance of self-denial of one or two beloved dishes; but the problem is not so simple as that; to reduce weight is a difficult and complicated process, and often dangerous. It involves the application of psychology as well as food composition. The physician who undertakes to advise a patient how to reduce must be familiar with calories and their production by various foods. He must also know the dangers of too rapid reduction, and be ready to have analyses of the blood and urine made as they are required.

The importance of the subject of weight reduction, and the widespread popular interest in it, has led the American Medical Association to appoint an Adult Weight Conference. Some of the results of the deliberation of the Conference have been the preparation of articles on dieting, which are published in the magazine section of the Sunday *Herald Tribune*. The one on February 20 was by Dr. Thomas D. Wood, Professor of Physical Education, Columbia University. The article gives sample diets which any one wishing to reduce may follow. But the essential part of the advice is that any one seeking to reduce in weight should do it under the care and direction of a physician, and after a physical examination.

There is a two-fold obligation implied in Dr. Wood's paper. First, to the patients to go at the dieting problem intelligently, and according to the principles of scientific medicine; and second, to the physician to prepare himself to give the proper advice scientifically and medically.

The question has arisen whether or not the giving of dietetic advice is to be considered the practice of medicine. It is the practice of medicine to prescribe a diet to contain a certain number of calories, even when the preparation of the diet is left to the patient.

It is notorious that the usual methods of reducing weight lead to weakness and fatigue, because of the lack of essential food elements. It is perfectly possible to reduce at the rate of two pounds a week with only slight discomfort from hunger, and with an increase of strength and comfort.

Any one who does periodic health examinations efficiently must needs know how to advise a patient to reduce in weight with safety and comfort, for over-weight is one of the fundamental conditions which affect health and strength and longevity.

THRIFT WEEK

Physicians, as well as others, need to keep clearly in mind certain principles on which financial independence is based. These are well stated in the New York *Herald Tribune* of January 14, Commenting on the National Thrift Week, January 17-23, the newspaper suggests that the semi-annual dental inspection and the annual physical examination be supplemented by a personal economic audit and the correction of financial defects which may be found. It offers the following plan:

"Every citizen is urged to measure himself by the *Ten Point Creed*, upon which the thrift movement is based. One may learn his own economic efficiency by giving himself credit for ten per cent of each of the following points which he follows with conscientious thought and business acumen:

1. Work and earn.
2. Make a budget.
3. Record expenditures.
4. Have a bank account.
5. Carry life insurance.
6. Own your own home.
7. Make a will.
8. Invest in safe securities.
9. Pay bills promptly.
10. Share with others."

This is a simple creed which every physician may be proud to follow, and which most physicians do follow in a manner befitting their education and standing in the community.

THE PEOPLE'S PART IN THE PRACTICE OF CIVIC MEDICINE

Doctors are sometimes criticized for their inability to prevent the onset of diseases. It is the doctors' work to point out the way of prevention; it is the people's work to follow that advice.

It is beyond human possibility that doctors can set forth the dangers of illness and the beauties of strength and vigor so forcibly that all the people will feel compelled to follow their advice. If the doctor warns the people and offers himself as a guide on the way to safety and health, he has done his part fully and well. The people themselves must do their own walking down the straight and narrow way to health and strength.

The physicians of New York State offer to immunize the people against diphtheria; the acceptance of the offer requires an immense amount of persuasion and instruction by school teachers, public health nurses, and other lay workers.

Rabies has been certified by the State Commissioner of Health, Dr. Matthias Meade, Jr., in several communities of five counties, but the outcry against impounding pet dogs straying on the streets is apparently louder than that of the advocates of protection.

Are doctors responsible for the ignorance and apathy of the people in public health matters? Not in these days when health lectures and radios, and especially newspapers carry health information in far greater quantity than the people can assimilate.

LOOKING BACKWARD

This Journal Twenty-Five Years Ago.

The Smallpox versus Dr. Pfeiffer:—This Journal for March, 1922, contains an article describing the contraction of smallpox by Dr. Pfeiffer, an anti-vaccinationist of Boston:—

"A smallpox case destined to be famous in the history of the progressive victory of therapeutic science over the ranks of ignorance, prejudice, quackery and sentimentalism is that of Immanuel Pfeiffer, M.D., of Boston and of Bedford, Mass. This physician was certainly one of the most vigorous and intelligent of the anti-vaccinationists, yet he was very certain, in his own mind, that small pox is not a contagious disease, but that it is rather the product of bad hygiene and evil diathesis.

"Dr. Pfeiffer has been for many years emphatic in his denunciation of vaccination. He deemed it always an injury and never a benefit, but he denounced it especially because he considered compulsory vaccination a violation of the rights of the individual, however strikingly oblivious such rights may be of the undoubted rights of others, far more numerous, in their demand to be protected by the State from all preventable disease.

"Dr. Pfeiffer, to his honor be it said, had the courage of his convictions on this subject, and in this respect at least he differed from the great majority of his cult. During a recent anti-vaccinational hearing before a committee of the Massachusetts Legislature he undoubtedly determined to prove that to a person in vigorous health, as he himself then was, smallpox is not a contagious disease. This fact he hoped to demonstrate and he chose the means best adapted certainly to make his expected demonstration publicly emphatic. To obtain permission from the Boston Board of Health to visit the numerous patients in the city's smallpox hospital on Gallop's Island was for him, as for other physicians, a comparatively easy matter.

"Permission was readily granted, and on January 23d, well escorted by officials of the Board, he visited the hospital. He thoroughly examined the institution, and went to the bedside of many of the patients, and he took all precautions which other visitors take to avoid infection (such as wearing of a close-bound gown and cap, washing the hands, beard, hair, etc., on leaving), save that of vaccination.

For the next ten days, more or less unknown to himself, he was watched and attended by physicians from the Board of Health in order that the public might be protected from infection from his anticipated disease. During these ten days he was at his office and in the anti-vaccination hearings, as was his wont. But on February 3d, ten days after his visit to the hospital, when the officer called at his professional office on Washingon Street, Dr. Pfeiffer was not to be found, nor did he appear at the State House hearing.

"On the following Saturday, fifteen days after the visit to Gallop's Island, the Boston Board of Health received notice from a physician that Dr. Pfeiffer was ill at his home in Bedford with what was probably smallpox, and asking expert diagnosis, the case having been reported by Dr. Pfeiffer's son to the Selectmen of that town. Experts went at once to Bedford and found Dr. Pfeiffer suffering from a very bad attack of the disease.

"The latest news from the bedside of this for once useful anti-vaccinationist is that he may recover, although he is suffering from the confluent type of the disease. All hope that such will be the case. In the event that this wretched malady leaves him alive, we may perhaps expect from him one of three things—either that he will deny that his disease was smallpox, or that he will relinquish his public opposition to a world of demonstrated medical wisdom; or that he will admit that smallpox *is* contagious and that the public therefore needs protection from its awful ravages by any and every feasible means."

MEDICAL PROGRESS

Waves of Disease.—H. Curschmann refers in this article to peaks in the graphs of disease incidence which occur in all maladies irrespective of cause or nature. Their study was begun many years ago by Juergensen. To take the incidence of a given disease—pandemic influenza for example—the recrudescence seems associated with the birth of a new generation without any acquired immunity. In the case of pernicious anemia, on the other hand, we note a sudden jump in 1915-16 followed by a still larger one in 1925. To what may we attribute these increases? Not the war and post-bellum hardships because the rise is seen in other countries which did not participate in the war. Do we have to think in this connection of a contagious element? For the present Curschmann gives up the riddle as insoluble. A similar increase has been noted in some of the acute leucemias, but the obscurity as to the cause is the same here as in Biermer's disease. That two groups of blood disease happen to show the same increase should, but does not, throw any light on it. At the same time chlorosis is showing a striking falling off, which indeed was noted as far back as the end of the last century. A graph quoted shows that in reality a sharp drop occurred in 1893 with a slight temporary rise at the beginning of the century followed in turn by a further steep decline until today the disease is almost extinct. The falling off in a disease once so common is a mystery to most clinicians, although Deneke shows with some plausibility that the trouble increased with tight lacing and declined when the women abandoned this custom. Contributory factors of the same type are plentifully evident as in movements toward open air, exercise, sensible clothing. However, by investigations among certain industrial classes, as the Polish reaping women who still show some chlorosis, it seems to be premature to claim that women can get rid of chlorosis by leaving off corsets and living out of doors, while in a comparison of the curves of corset wearing, etc., with the curves of chlorosis incidence there is no close correspondence seen, so that Curschmann abandons the teaching of Deneke as ill founded. We next have to speculate on whether some mutation of the human constitution has at the same time caused chlorosis to give place to several much more serious blood states. The factors which we have to analyze in this connection are feeding habits and other customs which make up civilization, psychic factors, various infections and climatic and meteorological conditions. We see in the industries how conditions like lead poisoning come and go, because we know the causes and the prophylaxis, but in the diseases which we do not understand similar causal agencies obtrude themselves and then vanish. Climatic factors may influence cell permeability in a way which, while its other effects are not obvious, may play a great rôle in disease. This great factor is the one which is the hardest to understand and control, and this difficulty handicaps us greatly in a study of the other factors.—*Muenchener medizinische Wochenschrift,* December 31, 1926.

Cold Feet as a Pathological Condition and Cause of Disease.—A. Brauchle has written a monographic article on this subject which does not lend itself to summing up in a brief abstract. The latter may therefore be restricted to the subject of prevention and treatment. If the condition is congenital it is a mistake to use warm or hot water to offset it or to make use of heavy footwear or depend at night on the hot water bottle. Instead the feet should be bathed cold and rubbed warm beforehand. The shoes should always be warm and tight but the stockings loose-meshed and changed often. In warm weather the thinnest footwear is allowed with going barefoot when practicable. The child should be about as much as possible and in study periods should be allowed to get up and run about. Exercises, such as rising on the toes, are recommended. Many other hygienic suggestions are given which apply in general to adults as well as to children. The management of the cold damp foot is very similar. The mechanism of cold feet involves a vicious circle, there being an excessive loss of heat without the reactive hyperemia which should follow. In the cold feet of the neurasthenic and hysterical there is also a state of angiospasm. The conditions to which cold feet may contribute are manifold—all of the catarrhal and exposure diseases, the neuralgic and rheumatoid, etc. In a diphtheria epidemic the cold-footed children are the first to be attacked. Engelmann has sought to uphold the existence of a law that the more remote the organ from the feet the more apt it is to suffer. If this is so, one would expect cranial neuralgia and rhinitis to be more common in these subjects than enteritis or cystitis.—*Muenchener medizinische Wochenschrift,* December 3, 1926.

Urticaria from Cold.—G. B. Podestà of the neurologic clinic at the University of Genoa relates two cases in which the application of cold produced locally wheals and constitutionally the hemoclastic reaction of Widal. In fact Widal and Abrami reported a case of urticaria from cold which is of the same type as the author's material, save that the exposure to cold was general and not local. Mibelli reported cases similar to the author's in 1923 and other references are given in the bibliography but are not mentioned in the text. It is certain that the condition is extremely rare and it does not appear to possess any special clinical importance. The first patient was 32 years old when first seen and his peculiarity did not manifest itself until two years previously, although he must often have been exposed to cold from his occupation of sailor. The wheals and pruritus appeared on the exposed areas—face, hands—and were burdensome. The author tried to immunize him by injecting calcium chloride and his own blood but the benefit derived therefrom was not permanent. The other patient was a middle-aged woman who had developed her peculiarity four years before consultation. Her face and hands were the seat of urticaria whenever she washed them in cold water. It was in this patient that blood studies showed the presence of the colloidoclastic shock. The patient also exhibited dermographism with red wheals, and many vasomotor phenomena were manifested after the exhibition of alkaloids, endocrine substances, etc. It does not appear that any exact diagnosis was made or any benefit from treatment obtained, although the author speculates extensively on the nature of the peculiar humoral state.—*La Riforma Medica,* November 15, 1926.

Status of Chemotherapy.—B. Nocht of Hamburg, writing in a supplement to the *Klinische Wochenschrift* of November 26, 1926, gives a comprehensive summary of our progress in this resource, using the term in the sense of specific activities directed against the causation of the disease, conceived as a bacterium, a protozoon, etc. Much that is called chemotherapy does not come under this conception, but anthelminthics, insofar as they are chemical substances given to destroy nosoparasites, do belong here. Antibacterial therapy is discussed first and while many chemical substances are employed for the internal treatment of germ diseases the results obtained have not yet proved of revolutionary significance, as is readily seen when we compare them with the results obtained in the treatment of diseases due to spirochetes and trypanosomes and even to fungi. The action of iodine in actinomycosis and sporotrichosis is, however, not exactly chemotherapeutic in the strict sense of the term, for in the author's opinion it merely removes the product of the disease without attacking the cause. The great triumphs of chemotherapy are seen in connection with syphilis and frambesia, African sleeping sickness, the leishmanioses, amebic dysentery, and malaria, and their treatment with arsenicals, antimonials, emetine, and quinine. Two other protozoan affections may be added to the above—epidemic relapsing fever and the contagious pneumonia of horses, although in the latter it is rather the prophylactic than the curative property of salvarsan which is concerned. But certain diseases of spirochetic origin, as yellow fever and Weil's disease, fail to respond to spirillicides. The arsenical synthetic "germanin" appears to be able to control the South American horse plague known as mal de Cadera, and it is said to be equally efficacious in the trypanosome disease of the camel.

A Comparison of the Effects of Supplementary Feeding of Fruits and Milk on the Growth of Children.—Agnes Fay Morgan, Glatha D. Hatfield, and Martha A. Tanner (*American Journal of Diseases of Children,* December, 1926, xxxii, 6) report the results of observations made on 47 children living in the California State Schools for the Deaf and Blind, where the house diet was excellent, though somewhat deficient in raw fruit. The children were divided into four groups, those of one group receiving as a supplementary lunch one-half pint of milk; those of the second group a medium orange each; those of the third group four pulled figs each, while a fourth group was used as a control. The results of these additions to the diet were judged by the Baldwin-Wood, the Pirquet, and the Dreyer standards. The percentages of the original groups showing increases, after fourteen weeks, in standing and sitting heights were greatest in the milk group; in chest circumference, chest expansion, and vital capacity in the fig group, and in hand-grip strength in the orange group. The average of all measurements showed the number of increases in the fig group to the largest. A possible correlation is suggested between the increase in chest measurements of the fig group and the increased carbon-dioxide capacity of the plasma resulting from the excess basicity of the fig ash and its laxative value. An average of all the gains showed the orange group first, the fig and milk group next, and the control group last. The gross average gain in pounds was greatest for the milk group, and the average percentage gain in weight above that expected, according to the Holt standard, was largest for the orange and milk groups. At the end of fourteen weeks 7 children were changed from milk to orange, and 7 others from orange to milk, and the feeding continued four weeks longer. The average rate of gain in weight was considerably decreased in those changed from orange to milk, while those changed from milk to orange were very little affected.

Duration of the Transmissibility of Scarlet Fever.—E. Bernhardt, a Berlin school physician, mentions a case in 1912 in which a child who had been treated in an isolation institution was allowed to return home with a running ear after a six weeks isolation. A few days after its return the father developed a scarlatinal angina which proved fatal. Recently the author has had a similar case in which a boy of 8 years was allowed to return home after six weeks isolation. Desquamation was over but an afebrile otitis media was just beginning. He was forbidden to return to school and automatically went back to the care of the family physician, who forbade to the four younger children attendance at the school and kindergarten, and to them and the mother alike attendance at public gatherings. There was no household quarantine. Nothing happened until the rupture of the tympanic membrane in the convalescent boy, whereupon a three-year old sister promptly developed the disease and was taken to the hospital, where she was soon followed by a seven-year-old brother. This episode taken in conjunction with the earlier experience appears to show that the pus of scarlatinal otitis is actively contagious with a very short latent period of one to two days; and that in these postscarlatinal otitides the isolation period should be prolonged until there is no longer risk of contagion. The author advocates a routine isolation of seven in place of six weeks independent of the ear complication. He could find no possibility of any other source of infection of the two return cases.—*Deutsche medizinische Wochenschrift,* December 3, 1926.

Treatment by Drugs.—In a presidential address to a Branch of the British Medical Association, H. Guy Dain (*British Medical Journal,* December 25, 1926, ii, 3442) takes exception to the tendency to regard the use of drugs, with the exception of those known to be specifics in the treatment of certain diseases, as in the main unnecessary and useless. This has not been his experience. He first mentions the diminishing use of opium, and states that he always experiments with combinations of other pain-relievers as long as possible before resorting to the use of this drug. In a few cases of inoperable carcinoma he has found useful a formula containing magnesium carbonate 5 grains, potassium citrate 5 grains, alum sulphate 2 grains, tincture of opium 2 minims. In acute "cold in the head" a few doses of ammonium chloride 10 grains, sodium salicylate 10 grains, chlorodyne 10 minims, produce almost magical results, but with the constituents tried separately the same effect cannot be obtained. In acute pneumonia it is dangerous or even fatal to give saline aperients, especially magnesium sulphate; expectorants are almost equally undesirable, as they increase the risk of the condition in which the patient literally drowns in his own secretions. In the early stages Dain prescribes quinine and calcium chloride, hoping to keep the air-passages dry, with the addition of opium when there is much pleuritic pain. In epidemic influenza earlier relief of symptoms is afforded by the use of quinine and aspirin. In an advanced case of alcoholic cirrhosis of the liver with ascites, aspirin caused diuresis and made further tappings unnecessary. Also in a case of tuberculous peritonitis the administration of salol acted like a charm; the fluid and symptoms disappeared and the patient has remained well for fifteen years. Salol is useful in conditions of intestinal catarrh or diarrhea, alike in small children and in older people. In mucous colitis, besides the salol, liquid perchloride of iron, liquid perchloride of mercury, and tincture of hyoscyamus, of each 15 minims, taken half an hour before food, give excellent results. Not all patients, however, respond to this. In severe and prolonged cases great benefit may be derived from iron and ammonium citrate 5 grains, liquor hamamelidis 15 minims, tincture of opium 2 minims, the opium being omitted when pain and diarrhea are not present. In cases of "nerves" potassium bromide 10 grains with liquor strychninæ 3 minims [1/35 grain strychnine hydrochloride] is helpful. In the vomiting of pregnancy a mixture of sodium bicarbonate and bismuth with the addition of bromide is most effective. In the treatment of failing heart muscle Dain has had good results with the administration of adrenaline by mouth, in spite of the fact that we are told that it is only effective when given hypodermically. Among effective tonics which are not expensive are strychnine hydrochloride with chloroform or peppermint, or Easton's syrup [syrup of phosphates of iron, quinine, and strychnine (N. F.)], 30 minims in water.

The Rationale of Foreign Protein Therapy.—Dr. C. Mez, a botanist, seeks an explanation of the good results often obtained from the injection of foreign protein. For the past 16 years much experimental research into medical subjects has been carried on in the Königsberg Botanical Institute; for while the research is botanical in method and aims it has a strong bearing on medical problems. Freund has already pointed out two wholly distinct effects of foreign protein injection. One, of course, is stimulation or irritation, for foreign protein of any sort possesses this property while the other, which appears later, is toxic in character. This distinction is fully in accord with the author's viewpoint. He finds that the initial stimulative action increases the production in the blood of an enzyme which breaks up albumin and is nonspecific in character. This enzyme is normally present in slight degree and its function is to disintegrate albumin after cell death and thus detoxicate it. In the second stage of the process the antigens which appear in the blood form antibodies which are specific. In other words, the enzyme digests the antigens with production of the antibodies. Buchner has said that an antitoxin is nothing but a toxin made harmless—detoxicated. This view is opposed to the common belief that an antitoxin is a product of the patient's own blood albumin, which the author regards as quite untenable. The real defender of the patient is the enzyme produced in excess by the presence of the foreign substance and the real immunization is the transformation of the antigen into a harmless substance.—*Muenchener medizinische Wochenschrift,* October 29, 1926.

Treatment of Infantile Rickets by Intramuscular Injection of Cod-Liver Oil Concentrate.—Lawson Wilkins and Benjamin Kramer administered to two children with active rickets a concentrate of cod-liver oil by the intramuscular route at weekly intervals, in doses equivalent to 25 c.c. of the oil. Fresh calcification of the rachitic cartilage appeared within three weeks. The changes in the concentration of calcium and inorganic phosphorus of the serum were identical with those previously observed following the oral administration of cod-liver oil. Whereas cod-liver oil increases the absorption of phosphorus and calcium from the intestine, as shown by Howland, the fact that it is effective when administered intramuscularly indicates that it is not purely a local action upon the intestinal mucosa but is a general one and exerted through the circulation. In preparing the concentrate cod-liver oil was saponified by means of alcoholic potash and extracted with petroleum ether. One cubic centimeter of this petroleum ether is equivalent to 1 c.c. of cod-liver oil. The dose to be administered was measured into a dish and the petroleum ether allowed to evaporate in the air. The solid residue, redissolved in ethyl ether, was injected into the gluteal muscles of the patient.—*Bulletin of the Johns Hopkins Hospital,* January, 1927, xl, 1.

Treatment of Raynaud's Disease.—E. P. Poulton, writing in *The Lancet,* December 18, 1926, ccxi, 5390, advises in the milder cases attention to the general health and the application of simple local measures, such as rubbing the hands, bathing them alternately in hot and cold water, the wearing of gloves, together with large draughts of physiological saline solution in the early morning. Galvanic electricity, high frequency currents, and diathermy may also be of value. In the more severe cases, especially when gangrene threatens, Einhorn's treatment should be adopted. This consists in the administration of large quantities of sterile saline solution (0.85 per cent) at body temperature through a duodenal tube. The tube need not enter the duodenum but should be introduced to the 28-inch mark. With the patient on his right side, two pints of saline are run in, and subsequently one pint every half hour, until 8 to 10 pints have been administered. The treatment may be carried out for four or five days in the week for a period of two or three weeks, watching for pulmonary edema, which sometimes occurs. Tominek of Prague uses intravenous injections of radium emanation in physiological saline solution, the dose being 2 to 3 millicuries, gradually increased to 15 millicuries. He suggests that radium is antagonistic to adrenaline which is responsible for the spasm. Surgery is to be considered only in the most intractable cases. The methods that have been employed include that of Leriche by which the periarterial sympathetic nerves around the femoral artery are removed; injection of alcohol around the artery, and more recently the method of Davis and Kanavel which consists in the removal of the lower and middle sympathetic ganglia of the sympathetic chain of the neck. The oxygen bath is valuable and has not been sufficiently employed. The limb is placed in a wide-mouthed rubber bag, which is filled with oxygen and bound air-tight on the limb above the affected part. Amputation should never be resorted to unless the whole end of the limb is becoming gangrenous.

The Malaria Treatment of Early Syphilis.—F. Bering would not submit all victims of early syphilis to inoculation with malaria virus, but if there were a positive Wassermann in the cerebrospinal fluid at the close of the regular treatment—say about the end of the two-year period following infection—he would feel justified in taking this step for the prognosis would justify it, even if the positive test were feeble. This condition he would attack with arsphenamine, mercury, or bismuth, for this course can clear up the liquor and he would combine the three remedies in the same treatment; but if the liquor then reacted positively he would go over to the malaria treatment. The first to make use of the latter in comparatively early latent syphilis was Kyrle and the author has followed his technique, including an intravenous injection of quinine tc cut short the malarial infection. The author has now treated 137 patients with manifest or latent syphilis within the first two years after infection or latent syphilis within the first two years after infection. The puncture of the spine to test the efficiency of the cure should not take place until after the expiration of four months. All of this series were submitted to the puncture and while the author gives no figures he states that the results were very satisfactory. In some of the manifest cases syphilides which had been rebellious to regular drug treatment disappeared promptly under the use of the malaria virus. On the completion of the malaria treatment the author adds a course of arsphenamine.—*Muenchener medizinische Wochenschrift,* November 26, 1926.

LEGAL

By **LLOYD PAUL STRYKER, Esq.**
Counsel, Medical Society of the State of New York.

THE HAZARDS OF MALPRACTICE SUITS

The hazard of malpractice actions for the physician was again brought forcibly to the attention of the writer through a recent decision of the Supreme Court of Wyoming in the case of *Phifer against Baker*. In that case a child aged nine years sustained a fracture of her left arm between the wrist and elbow and charged negligence on the part of the defendant doctor in bandaging the arm too tightly at the time of the first treatment and refusing to loosen the bandages. A verdict of Ten Thousand Dollars was recovered and was sustained by the Court of Appeals. And recently in New Jersey a judgment for Thirty-five Thousand Dollars for the alleged malpractice of a physician was recovered.

The hazard of malpractice is with the physician always. While we have great faith in the jury system and believe that in the long run justice is obtained in the courts, the fact remains that in each case the conduct and treatment of a physician is the subject which twelve ordinary laymen are authorized to pass upon.

Of course it is obvious that many times very bad results are obtained through no fault or negligence on the part of the physician, and yet oftentimes these results are so impressive that there is always the danger that a jury may be swayed by sympathy with the patient and may conclude that the undeniably bad result has been occasioned through the doctor's fault. In cases where the facts are in dispute, there are instances in which the verdict of the jury (the jury being the sole judges of the facts), must be upheld by the higher courts, even though the verdict is so large as to result in the impoverishment of the defendant.

Recognizing these truths, the group plan of insurance was inaugurated by the New York State Medical Society some five years ago. It has been operated with signal success and with the approval of all those who have availed themselves of its benefits. To a doctor who is harassed and perplexed and worried and concerned over a malpractice action in which he finds himself the leading character, there is a peculiar comfort which comes from the knowledge that if the verdict goes against him the judgment will not be paid by him, but by the insurance with which he has been foresighted enough to protect himself. Despite these facts, cases are constantly arising in which doctors have not protected themselves by insurance and in which it is always possible that a verdict might be rendered which would result in heavy financial embarrassment if not in financial ruin.

During the last month your counsel had the pleasure of vindicating, in a very serious malpractice suit, the rights of one of the leading obstetricians of the metropolitan district. The case was one in which the child had lost the sight of one eye through ophthalmia neonatorum. The claim of the plaintiff was that the doctor had failed properly to treat the eyes of the child at birth. In this case, had the jury decided against the doctor, a verdict in a very substantial amount would have been the result. The doctor was financially responsible, but such a verdict would have been a serious blow to him, not only from the standpoint of his professional standing, but to his pocketbook as well. This particular physician is now insured under the group plan, but his insurance was not taken out until after the occurrence which formed the basis of the suit. The feelings which this member of the medical profession suffered during the three days of the trial are such as your counsel would be glad to have other physicians avoid. The doctor knew that an adverse verdict would involve consequences of the gravest character and he knew also that had he been insured, at least the financial onus would have been borne by the insurance carrier rather than by himself. Fortunately, a verdict was recovered from the jury in behalf of the defendant, thereby vindicating him in his practice and avoiding any financial loss. This satisfactory result, like so many which we have been fortunate in securing, cannot, however, be anticipated in every case.

Every malpractice action presents a serious risk to the physician and such a source of worry as those only who have faced one fully understand. The means whereby the crushing load of financial worry may be lifted from the shoulders of the doctor sued for malpractice was earnestly sought by your State Society and its officers five years ago. They met and solved this problem through their inauguration and maintenance of the splendid group plan of insurance, which in every detail has justified all the hopes which were entertained for its success.

From experience in hundreds of cases, your counsel is at a loss to understand how any physician is willing to assume the grave financial risk in the practice of his profession without protecting himself through the medium of the Society's highly satisfactory group plan.

In numerous instances where physicians have seen fit to take out insurance in companies other than that in which the State Society's group plan is carried, your counsel has received inquiries as to whether or not physicians thus insured are entitled to his services. All of them seemed desirous of securing his services. Unfortunately, however, where a physician is insured in a company other than the Society's insurance carrier, such physician cannot secure your counsel's services where the policies in such companies provide that the policyholders must accept the services of the counsel of the company issuing the policy. This, so far as is known, is a provision common to all policies.

From a long experience the writer is convinced that no commercial company has ever attained to that complete understanding of the physician's problems which is possessed by the carrier under the group plan. This company has, and on all occasions displays, complete confidence in your counsel's judgment and never suggests a settlement, nor is indeed willing to make a settlement except in cases where your counsel feels a settlement is justified. In every instance the doctor's reputation and his professional standing are of paramount consideration.

Once again your counsel cannot too strongly emphasize the value of the group plan of insurance and of the importance, to each individual doctor, of availing himself of its inexpensive and highly beneficial protection.

PLASTIC OPERATION WITH RESULTANT SADDLE NOSE

A young man engaged in the occupation of a photographer had sought advice from the defendant for the relief of obstructed nasal breathing and the correction of a nasal deformity.

In a malpractice action instituted against the surgeon it was charged that by reason of the negligence and carelessness of the surgeon in the performance of the operation too great a quantity of the septum was removed, causing the bridge of the plaintiff's nose to fall, thereby obstructing his breathing to an extent greater than it had been obstructed before the operation and distorting his features and otherwise injuring him in his health and in his occupation and business.

In this action he sought to recover damages for the injuries alleged to have been sustained by reason of the negligence in the operation.

When the patient first came to the surgeon in October, upon examination the surgeon found that the patient had a hook nose hanging down, with a lateral displacement to the left; also a marked deflection of the nasal septum obstructing the breathing space through the nostrils. It was also found that the nasal obstruction was complete producing pressure symptoms and headaches and stagnation of the nasal discharge.

After the examination the surgeon advised the performance of a submucous resection for the correction of the deviated septum, the removal of the hook, the shortening of the nose and the correction of the lateral displacement. The operation was consented to, and after the proper anti-septic preparation and the cleansing of the external parts of the nose, the mucous membrane was cocainized with a ten per cent. solution of cocaine hydrochloride. Adrenalin hydrochloride was applied to control the bleeding and a weak solution of cocaine hydrochloride and adrenalin was injected.

A submucous resection was then performed, an incision being made through the mucous membrane of the left side of the septum, through the perichondrium, the mucous membrane elevated and the incision made through the cartilage up to but not through the mucous membrane on the right side of the septum. When separation was completed on both sides, the quadrilateral cartilage of the septum was removed with a pair of forceps. The remainder of the obstructing septum was removed in the usual manner with Ritter forceps. Upon the completion of the submucous resection the surgeon then proceeded to the removal of the hook.

Incision was made at the edge of the triangularis cartilage on both sides. He freed the subcutaneous tissue from the cartilage and bone. He then sawed inward toward the median line from both right and left side with Joseph bayonet saw. He then freed the sawed-off hook from any remaining attachments with a sharp-edged buckle-pointed knife, then removed, freed and separated hook with a pair of forceps, smoothed the rough edges with a Joseph file and smoothed the cartilage by cutting away in very small strips with a sharp-edged, buckle-pointed knife. In the elevation of the point of the nose an incision was made between the quadriangular cartilage and septum mobilus to free the entire anterior portion of the septum. He then removed the triangular piece of the lower end of the quadrilateral cartilage. He connected the upper freed portion of the septum with the lower incision. He then sutured the new formed lower end of quadriangular cartilage with several sutures.

The lateral displacement was corrected by an incision made into the external lower end of pyromiformis opening on both sides. The periosteum was freed from the bone from the lower external end of the pyromiformis opening to radix nasi; sawed through with a knee-shaped Joseph saw through processus frontalis and osseous maxillaris on both sides; freed portion of bone was bent toward the medium line to straighten the lateral displacement and to correct the secondary width of the nose.

The nose was packed with sterile gauze and supported and held in place with adhesive plaster. The patient was put to bed with ice compresses to nose and there were daily dressings for about five or six days. He remained at the sanitarium for about four days following the operation. The patient then returned to his home but came back for daily dressings for about two weeks. At this time no complications of the field of operation were observed and no complaint was made by the patient. He breathed freely through the nostrils on both sides and there was no occlusion at that time.

Thereafter the patient called upon the surgeon once or twice each week for about two months, by which time he needed no further treatment; his nose had healed and he was breathing freely.

The next heard from the patient by the surgeon was when he returned the following June, and upon examination it was found that a keloid had formed at the site where the lateral cartilage had been removed. Under a local anaesthesia the keloid was removed and the patient remained at the sanitarium over night following the operation. He returned daily to the surgeon for a period of ten days, at each of which times the wound was dressed. Thereafter he was seen by the surgeon twice a week for two weeks. This was the last time the patient was seen by the surgeon.

The action finally came on for trial, the trial of the same consuming three days. Expert testimony by physicians was introduced on behalf of both the plaintiff and the defendant. The plaintiff likewise testified in his own behalf and exhibited himself to the jury, showing the results of the operation, he at that time having a very marked saddle nose. The defendant likewise testified in his own behalf, describing in detail the technic in the performance of his operation and in the subsequent care. After hours of deliberation had by the jury, a verdict was returned by it for the defendant, thus terminating the action in the surgeon's favor.

PREGNANCY—INJECTION OF PITUITRIN FOLLOWED BY ABSCESS

One of the defendants in this action, a physician specializing in obstetrics, was engaged to attend the plaintiff during her pregnancy. It was charged that upon his recommendation the plaintiff procured a room in a hospital conducted and operated by the other defendant; that the physician conducting the hospital had neglected and failed to perform his duties towards the plaintiff so that one of the nurses at the hospital improperly gave the plaintiff a hypodermic injection, causing an infection and an abscess, endangering her life and that of the unborn child; that it subsequently became necessary for the plaintiff to procure other medical and surgical attendance; that the plaintiff became an inmate of another hospital where she remained for a period of about ten days and was not entirely cured until a long period after her discharge from said hospital.

On July 14th the patient, a primipara, had been in labor intermittently all morning and at the time of delivery there was a cessation of labor pains; there was, however, complete dilatation of the uterus, the vaginal canal was clear with the head well engaged. The physician thought that it would probably be necessary to resort to forcep delivery. Under his instructions a ½ c.c. of pituitrin was hypodermically administered to the patient. There was a spontaneous reaction to the pituitrin and the patient was delivered of a normal child. No tear of peritoneum or laceration of any kind. The patient was returned to bed in good condition. On the day following the delivery there appeared upon the thigh of the patient a large red area. This area of redness continued to enlarge from day to day. No positive diagnosis of the condition was made by the physician who delivered her. After consultation it was thought that the patient probably had erysipelas or an abscess. As there was no accommodation at the sanitarium of which the plaintiff was a patient for surgical treatment, the physician attending the plaintiff suggested and recommended her removal to another hospital. Five days following the delivery the patient was removed in a private ambulance to another hospital where the proper surgical attention could be given her. No further treatment was rendered by the defendant to the patient and nothing further heard from her until the institution of the malpractice action.

During the pendency of this action the defendant died and the action therefore abated.

NEWS NOTES

COMMITTEE ON PUBLIC RELATIONS

The sub-committee of the Public Relations Committee met by appointment with the sub-committee of the Tuberculosis and Public Health Committee, at the Biltmore Hotel, New York City, on Wednesday, February 9, 1927, at 3 P. M. The following were present: Drs. Farmer, Britt, Mr. Folks, Mr. Nelbach, Dr. Williams and Dr. Lawrence; also Deputy Commissioner Brooks of the Department of Health, Drs. Fisher, Van Etten and Mr. J. A. Kingsbury.

Dr. Farmer announced as the subject for discussion, "The Creation of County Health Units," and urged that the discussion be informal and free, so that the committee could later prepare a report to be submitted to the joint committee on February 24th. He asked Mr. Folks to open the discussion.

Mr. Folks said that he and Mr. Nelbach had prepared some suggestions, both pro and con, with regard to the establishment of a county health unit and, upon invitation he read the following:

A. *Points In Its Favor:*

1. Modern public health, a many sided matter of great specialization, and requires a number of different things to be done; *e. g.,*
    - (a) Consultation service in five or six medical specialties;
    - (b) Communicable disease control;
    - (c) Statistics;
    - (d) Public Health Nursing;
    - (e) Laboratory Work;
    - (f) Public Health Education;
    - (g) Sanitation.

Impossible for state itself to provide all these services in all towns, villages and cities.

Towns, villages and small cities are all too small to be able to carry on all these activities in its particular area; they could not afford to employ the specialists and agents to provide all these services, nor would there be enough of each kind of work in such localities needing to be done to justify employment of such specialists or agents by such small localities.

2. The county, generally speaking, is the local governmental unit best fitted by population and economic resources and by actual experience over a period of years, to provide facilities for meeting modern social welfare needs; *e. g.,*
    - (a) Almshouse;
    - (b) Jail;
    - (c) Probation system;
    - (d) Children's court;
    - (e) Tuberculosis hospital;
    - (f) Laboratory;
    - (g) General Hospital;
    - (h) Widows' pensions.
3. Experience in other states has shown that the county is the most practical local unit of health administration; as in Ohio, North Carolina, Alabama and Virginia.
4. Experience in Cattaraugus county over a period of four years has demonstrated the suitability of the county as the governmental unit of health administration.

B. *Arguments Cited Against the County Health Unit:*

Expense, because under the present statute, the system of town, village and city health units is continued along with the county health unit.

* * * * * * * * *

Dr. Lawrence offered the following points which he had collected with regard to advantages of a county health unit:

1. Stimulates idea of local self government.
2. Permits of more accurate adjustment of budget funds to immediate needs.
3. Precedent in Department of Education, highways, and tuberculosis work.
4. Recognized as unit in legislation.
5. Can afford full time health officer and staff, making possible a health service approaching in adequacy that enjoyed by cities.
6. Facilitates cooperation with State Department of Health.
7. Facilitates raising necessary funds.

As an argument against the creation of a county health unit, Dr. Brooks suggested that supervisors are likely to be more political than members of a town board.

Mr. Kingsbury took exception to this and stated that in his experience boards of supervisors have shown themselves to be very deliberate bodies, comparing favorably with the larger legislative units.

Dr. Farmer asked whether it is the intention to abolish local health officerships.

Dr. Brooks said that the Department of Health had considered introducing to the law a permissive clause for such action by county supervisors. He felt that, in some instances, the supervisors would want to aboilsh the town health officers on the ground that their maintenance in conjunction with county health officership is too expensive. The district state health officers, he said, are of the opinion that, in general, there would be violent objection to the abolition of county health officerships. He said further that he felt there would be very slight objection to the abolition of town boards of health; that even the health officers themselves would in a majority of instances, prefer to work under a county health board.

Mr. Kingsbury thought the board of supervisors should be given such opportunity.

Mr. Folks said that Dr. Stanton P. Hull, president of the New York State Sanitary Officers' Association, believes that his association would raise no general objection to the abolition of county health officers where the county health unit is created.

Dr. Farmer then called for specific discussion of the question, "Should County Health Units Be Encouraged?"

Dr. Britt thought, that in such procedure, the County Medical Society should be consulted first of all, and its reaction ascertained. He wondered what reactions by County Societies have been noted.

Dr. Brooks stated that the Department of Health's program is, first, to consult with the County Society before anything more is done.

Dr. Britt, when asked whether he had any reactions from physicians, offered a number of letters that he had received from physicians in Cattaraugus county in response to a questionnaire he had sent out, from which the following deductions were made.

1. As to whether there had been a reduction of sickness since the organization of the county health unit—11 physicians replied negatively, while 3 thought there had been.
2. As to whether the county health officership operated against the best interests of the physician—12 answered in the affirmative and 2 in the negative.
3. As to whether it affected the specialist—1 replied enthusiastically in the affirmative.
4. As to whether the activity met with general approval—6 thought it did because of the intensive advertising it carried with it: 1 thought the result was indifferent, while 3 did not believe it met with general approval.

Dr. Williams questioned the value of data collected thus, on the ground that the question of the reduction of sickness was a matter for statisticians to work out and could not be based upon the reports for so short a time as one or two years in one small county.

In summing up Dr. Farmer said that the creation of county health units, it would appear, would be beneficial and that we should probably consider plans to promote such; that the committee's work would be to help develop a satisfactory plan.

Mr. Folks offered the following resolution, which was unanimously adopted:

"WHEREAS, After a full discussion of the subject of county health units, it was the opinion of the representatives of the State Medical Society and of the State Charities Aid Association, that such units would be desirable for the following reasons:

"1. Stimulates idea of local self government;

"2. Permits of more accurate adjustment of budget funds to immediate needs;

"3. Precedent in Department of Education, highways, and tuberculosis work;

"4. Recognized as unit in legislation;

"5. Can afford full time health officer and staff, making possible a health service approaching in adequacy that enjoyed by cities;

"6. Facilitates cooperation with State Department of Health;

"7. Facilitates raising necessary funds;

"8. Would aid community to profit by law which provides state aid in public health activities to counties.

"Therefore, Be It Resolved, That we urge the establishment of county boards of health and county health officers in the various counties of the state under the existing enabling law."

* * * * * * * * *

Mr. Folks, speaking on the plans of promoting the creation of county health units, said that his organization approached the county through the local Committee on Tuberculosis and Public Health and, later through the State Department of Health to the County Medical Society.

Dr. Brooks said that the Department of Health's approach was always through the County Medical Society.

Dr. Farmer suggested that the Public Relations Committee should consider a recommendation to the House of Delegates that the presidents of the district branches be encouraged to familiarize themselves with the subject of the creation of county health units, and take it up with the counties in their districts.

Dr. Fisher said that it was his idea that every County Society should take an active interest in the matter and that they should have a Committee on Public Relations always ready to treat with other agencies that would be interested in advancing health activities.

Dr. Britt announced that a meeting was contemplated for representatives of the County Societies in the Eighth District Branch, at which this subject would be taken up. The Meeting will very likely be held within the next month.

Mr. Kingsbury suggested that the Governor's conference would greatly stimulate immediate interest in the creation of county health units.

After a more general discussion of the position the County Medical Society should take in the creation of a county health unit, the following resolution was framed and offered by Mr. Folks:

"Resolved, That it is desirable that, when the

creation of a county health unit is contemplated, the movement be initiated in the Medical Society of the county, and

"That the County Medical Society manifest its cooperation by taking favorable action at its earliest opportunity, and

"It is also desirable that when the county health unit is established, the County Medical Society shall keep itself fully informed and, from time to time, submit suggestions, concerning the plans and operation of the unit, and interest itself in securing constructive cooperation between the members of the profession and the constituted legal health officers."

This resolution was unanimously adopted.

After some further discussion as to the reasons for establishing a county health officership, it was suggested that a representative from each of the two organizations and from the Department of Health, be requested to confer on the details of the creation of county health units, and report to their several committees the results of their deliberations, such committee it was suggested, should consist of Mr. Nelbach from the State Charities Aid Association, Dr. Lawrence from the State Medical Society, and a representative that Dr. Nicoll might name from the Department of Health.

THE LAST ILLNESS OF GEORGE WASHINGTON

The *Virginia Medical Journal* for January contains an article entitled "The Last Illness, and Death, of George Washington," by Walter A. Wells, M.D., of Washington, D. C. The paper is the result of much historic research, and was read before the annual meeting of the Medical Society of Virginia, in New York on October 13, 1926. The article is of extreme interest, especially at this season of the anniversary of his birth; but space permits the publication of only the following abstract:

Thursday, December 12, 1799, was raw; but Washington rode about his farm from ten until three o'clock, all through a sleet storm. On Friday, the 13th, Washington has a severe sore throat, but went out to mark some trees in the afternoon. That night he was hoarse, but he looked over the papers and read many extracts aloud. On Saturday, the 14th, he called Mrs. Washington at 3 o'clock in the morning, saying that he felt very sick and had an ague. He could then scarcely speak, and he breathed with difficulty, and could hardly swallow. At about daybreak a pint of blood was drawn from the General by the overseer of his farm.

The first call of his physician, Doctor Craik, was made at 9 o'clock that morning. The doctor bled Washington again, and gave him a gargle, which nearly strangled him. At 11 o'clock the bleeding was done for a third time. At 3 o'clock Dr. Elisha Dick, of Alexandria and Dr. G. R. Brown of Port Tobacco, came to consult with Dr. Craik, and the three bled Washington for the fourth time. The record is that the blood came slow and thick, but there was no fainting.

All through the afternoon Washington appeared to be in great distress owing to the difficulty of breathing. He continued in that state up to ten minutes before the end, when he breathed easier. He died between ten and eleven o'clock on that Saturday evening, December 14, 1799.

The diagnosis made by the attending physicians was cyanche trechealis. Dr. Wells suggests four possible diagnoses according to the present standards:

1. Acute laryngitis.
2. Quinsy.
3. Laryngeal diphtheria.
4. Inflammatory edema of the larynx.

Dr. Wells discusses each of these possibilities, and decides that the fourth is correct. He gives the sources of information available to doctors in 1799, and says that a textbook on medicine in common use was "First Lines in the Practice of Medicine," by William Cullen, Professor of Medicine in Edinburgh, from which place both Doctor Craik and Doctor Brown graduated. Dr. Cullen describes cyanche trachealis as a rare disease, attended with a croaking voice, difficult respiration, fever, a sense of "straightening" about the larynx. "It does not always run a course of inflammation, but frequently produces such an obstruction of a passage of air as suffocates and thereby proves suddenly fatal."

Regarding treatment, Dr. Cullen's book says:

"As we suppose the disease to be an inflammatory affection, so we attempt a cure of it by the usual methods of inflammation and which for the most part we have found effectual. Bleeding, both topical and general, has often given almost immediate relief, and by bleeding repeatedly has entirely cured the disease. Vomiting immediately after bleeding seems to be of use, and sometimes removes the disease."

Dr. Wells discusses the two modern treatments, adrenalin and tracheotomy, which would be used today. Adrenalin was discovered in 1901 over one hundred years after Washington's death. Trecheotomy was first done in 1782 by Andree, of London, but the operation was seldom used. Two French surgeons had published a pamphlet in 1798, advocating the operation in angina; but it was not generally accepted as of much value until 1826 when Bretonneau wrote on laryngeal diphtheria.

Dr. Wells discussed the criticism that the bleedings killed the General. Bleeding was the standard procedure of the day, and doctors would not have persisted in doing it if had been often attended with bad results.

Dr. Wells also discusses General Washington's previous health history. His father had died at the age of 49 from an affection similar to that of the General. His grandfather died at the age of 37, and his great-grandfather, at 54. Nearly all the other known members of the Washington family were short lived; but his mother was 82 when she died.

Washington has a severe attack of smallpox which he caught in the Barbados where he had gone with his brother, Lawrence, who seems to have had tuberculosis. Soon after his return from the Barbados, he had "a violent attack of pleurisy, which reduced me very low."

During the Braddock campaign, he developed an unknown fever, which his servant also had.

Two years after the Braddock campaign, while he was still doing frontier work with the army, Washington had a severe attack of dysentary, which compelled him to return home. He suffered from recurrent attacks of the disease for some months.

In 1761, Washington had a fever, probably malarial. Dysentary recurred in 1768, and kept the General in the house for a week.

Washington had malaria in 1786, and was relieved by "Bark" administered by Doctor Craik.

In the late spring of 1789, Washington had a severe carbuncle on his left hip, which kept him in bed for six weeks, while he was treated by Dr. Samuel Bard.

When Washington visited Boston a little later he caught a troublesome cold with inflammation of his eyes. This form of sickness became prevalent throughout the city, and was called the "Washington influenza."

In 1790, Washington had pneumonia in Philadelphia, in which he suffered two relapses.

In 1793, Jefferson wrote to Madison, "The President is not well. Little lingering fevers have been hanging about him for a week or ten days, and affecting his look most remarkably."

In August, 1799, he wrote of "Debilitated health occasioned by the fever which deprived me of 20 pounds of weight."

Washington began to have trouble with his teeth before 1754, and he lost them all and replaced them with a false set at a comparatively early age. He began to use glasses at the age of 46. He was noticeably hard of hearing during his later years.

Whenever he was sick, Washington was always downhearted, and thought that the end was at hand. Yet he never showed the least sign of fear, but always maintained that he was ready to meet death at any time.

Washington was large of stature,—six feet, three and a half inches in height,—and was athletic and muscular. He lived much in the open air, and had the reputation of eating simply. Yet he was peculiarly subject to sickness.

Dr. Wells has made a valuable contribution to medical literature by rendering available the facts about the health history of George Washington.

QUEENS COUNTY MEDICAL SOCIETY

The regular meeting of the Queens County Medical Society was held on Tuesday, January 25th, 1927, at 8.30 P. M., at Jamaica Lodge I. O. O. F., No. 247, 159-29 90th Avenue, corner 160th Street, Jamaica, President, Joseph S. Thomas, in the Chair. The minutes of the annual meeting, as published in the Bulletin were approved.

Dr. Fleming reported for the Censors, who recommended the following physicians who were elected to membership:

Harold W. Draffin, M.D., 102 Clinton Avenue, Jamaica, L. I.

Everett Godfrey Fausel, M.D., Jamaica Hospital, Jamaica, L. I.

Max Lehman, M.D., 161 Hallock Avenue, Ridgewood.

John William Mahoney, M.D., 36-33 Bell Avenue, Bayside, L. I.

Joseph William Mooney, M.D., 2810 Ditmars Avenue, Astoria, L. I.

Adalbert Schafer, M.D., Cross Island Boulevard and 34th Avenue, Auburndale, L. I.

Margaret Stanley-Brown, M.D., 151 Quentin Street, Kew Gardens, L. I.

Ivan Snider, M.D., 3664 Sixty-fourth Street, Woodside, L. I.

Adam B. Wolf, M.D., 968 Forest Street, Ridgwood.

An informal report of the Legislative Committee was made.

Dr. Thomas brought before the Society the matter of members volunteering to attend the camps of the Boy Scouts during the summer of 1927, for periods of two weeks or longer if desired.

The following scientific program was presented:

1. Paper, "Some Practical Points in the Treatment of Fractures," by H. C. Courten, M.D.

Dr. Courten discussed the management of certain common fractures outlining methods of reduction, position in which the limb should be placed and types of retention apparatus.

Special emphasis was placed on the use of the X-ray and the securing of film records of the course of the fracture, from its original condition until its final discharge.

The talk was illustrated by X-rays of the various fractures mentioned.

2. Paper, "Dust and Pollen-borne Diseases," by Albert Vander Veer, Jr., Deputy Physician, New York Hospital, O.P.D.

Dr. Vander Veer spoke of dust hypersensitiveness, due to the ordinary dust of the house, occurring more frequently during the winter months and in children. There was often an hereditary history of hypersensitiveness and the child was subject to respiratory affections, commonly mild but which might be a true bronchitis or even pneumonic. Dust sensitiveness was revealed by the reaction to the intradermal test with extract of house dust. To prepare the extract, to one volume of dust from the vacuum cleaner was added two volumes of physiological salt solution containing 0.4% phenol and after sufficient contact at room temperature this was filtered through a Berkefeld filter. There should be no sterilization by heat. An amount of the extract sufficient to see was enough for the intradermal test.

The treatment of the dust hypersensitive child consisted of keeping him in a dust free atmosphere, especially in the bedrooms, from which carpets, rugs and feathers of all kinds were excluded, allowing on the floor only rugs that could be frequently washed. When the weather permitted, the child was kept out of doors. Active immunization was accomplished by subcutaneous administration of the extract, beginning with 0.1 cc. and repeating every fifth day over a period of some weeks. When established, active immunity was maintained by the administration of one dose every month throughout the winter.

Dr. Vander Veer explained that only air borne and not insect borne pollens produced pollen disease. He explained that over one-half of the hay-fever cases were hypersensitive to rag-weed (late cases), any one variety of which was sufficient for the test and treatment. One-third were hypersensitive to grasses (end of May to end of July) and responded to Timothy. Ten per cent were early cases (month of May) were mild and not very important. Pollen extract was standardized by the nitrogen content. In strong concentration, its action might be dangerous. Hence commercial preparations were made weak. These were suitable for highly sensitive cases but less valuable for less sensitive cases. They were administered subcutaneously for immunization; avoiding veins. Severe reactions were indicated by itching, giant urticaria, marked malaise, general appearance, production of asthma, etc., and were treated by stopping absorption with tourniquet around arm and administering 5 to 10 minims adrenalin. Patient should remain in office fifteen minutes after which there was no danger of severe reaction. Results of treatment, satisfactory in 85%; improvement in 10%; no improvement in 5%. Discussion by Drs. E. E. Smith and J. J. Salerno.

A vote of thanks to the speakers of the evening was passed.

Collation.

Attendance, 38.

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on January 19, 1927, was called to order at 9 P. M., the retiring President, Dr. Cunniffe, in the Chair.

Dr. Cunniffe thanked the members of the Society for their cooperation and expressed his appreciation of the work of the committees during the past year. He especially thanked three members of the Society, past presidents, Dr. Simon M. Jacobs, Chairman of the Building Committee, Dr. Philip Eichler, and Dr. Edward C. Podvin, Chairman of *The Bulletin* Committee.

The following candidates were elected to membership: Raphael Bellantoni, Abraham Clahr, Charles Wilmer Fitch, Irving Friedman, Samuel Gartner, Emanuel B. Kaplan, Max Kliger, Abraham D. Teitelbaum.

Dr. Gitlow, appointed by the President as a committee to appear at a conference at the Board of Health, at which Dr. Harris presided, reported that at that meeting the main decisions were that, first, laboratories shall be supervised and registered by the Department of Health, and, secondly, nobody shall be a director of a laboratory unless he have a medical degree, or an A.B., B.S., M.S., Ph.D. or Phar.D.; and if he has the necessary degree, he shall also be required to present suitable evidence that he is capable of running a laboratory.

The scientific program then proceeded as follows:

1. "Some of the Early Manifestations of Coronary Disease," David Greenberg.
2. "Some Modes of Infection in Theumatic Fever," Ernest P. Boas.

The discussion on Dr. Boas' paper was opened by Dr. Murray H. Bass. Discussion on Dr. Greenberg's paper was opened by Dr. Sydney Steiner. Others participating in the discussion were Drs. Selkin, Jacobstein, Fisher and Leiner.

The discussion was closed by Drs. Greenberg and Boas.

Dr. Cunniffe introduced the newly elected president who took the chair and delivered the following inaugural address:

"With the advent of the new year, certain very definite problems loom up for our consideration. For the purpose of discussion these may be classified into three divisions: Scientific, Public Health, and Economic. There really is no distinct line of cleavage between the scientific and public health, and there certainly is a decided fusion of public health and economic problems.

"Only a small percentage of physicians in the City of New York have access to hospitals. It shall be our aim to enlarge the field of hospital facilities available to the general practitioners.

"It will be the aim of the Scientific Committee to present to the Society papers of general scientific interest rather than of subjects of a specialized nature. We again urge the organization of special Sections where such of our members who desire to limit their study and practice may find others similarly inclined, ready and willing to cooperate with them in their investigations and study.

"Among the Public Health problems which come to the fore are some of those which we have inherited from the previous years and which are still in the formative stage. Periodic Health Examinations of apparently healthy persons must continue to give us much thought during the current year. Be fully prepared for such examinations so that when the call comes, you do not hesitate, and the lay organizations, ready to aid you by ethical propaganda, do not turn from you and spurn your half-hearted response, and instead purchase your business-loving associate to do the work for them.

"The active immunization against diphtheria by toxin-antitoxin is a problem which we must take hold of immediately. The State Society has undertaken this campaign throughout the rural districts, while Dr. Harris, the Commissioner of the New York City Department of Health, is putting forth strenuous efforts to immunize all children that can be reached through the agencies of the Department Baby Health Stations and the public schools.

"Various welfare organizations, notably the New York Tuberculosis and Health Association, through their several Borough Committees, are planning to distribute cards and leaflets in this campaign of educating the public. Members of this Society should be ready. Inform your clientele of the value and importance of these injections, and immunize their children without delay.

"The Committee on Public Health and Medical Education is prepared to work in harmony with any doctor who desires to advance the general purpose of educating the people in health matters.

"It is the Economic problem, however, which gives us most concern. It is becoming increasingly more evident daily that the opportunity for the young physician to live in accordance with the standard more nearly suited to his qualifications and scientific attainments is non-existent. Indeed, the more mature practitioner cannot frankly boast of a large measure of financial success.

"In private practice, even on superficial investigation, it becomes immediately apparent that, while health is of paramount importance, the smallest item of the family budget is for medical services. This applies to the wealthy no less than to the poor. Only recently the trustees of an estate were haled to court by the guardian of a poor little rich girl, twelve years of age, to show cause why the poor orphan should not have her allowance of twelve thousand dollars increased to twenty thousand dollars annually. Among the items enumerated for her expenses, which included thousands of dollars for food, clothing, education and amusements, the entire sum available for medical services was six hundred dollars, three per cent of the annual allowance pleaded for. And this for a child of twelve whose physical well-being ought pre-eminently have first consideration.

"On the other hand, while the poor suffer from the lack of means with which to purchase proper and sufficient food, clothing, and habitation, they are the recipients of gratuitous medical services when ill. And while wonderful structures are being erected to house the sick poor, the doctor's name is seldom mentioned in connection with the institution, even though he is giving his services freely to check suffering and aid humanity.

"True, in the days of old when the physician ministered to the body as the holy man ministered to the soul, payment for services was no consideration, but we are not living in the days of the ancient Pharaohs. We are an integral part of a great struggle for supremacy, and whether we admit it or not, we shall either be vanquished and become mere commodities to the masses, or be victors and again take our place as leaders and respected men of science and benefactors of the human race.

"Why we have failed thus far and how to retrieve our former position should occupy our attention. Let us diagnose our own ills, and by intelligent endeavor and concerted effort eradicate the cause and return to a healthy economic state commensurate with the dignity of our profession.

"A well defined syndrome appears to us commonly present to explain our weakness, however complex its character may seem and no matter what its ramifications. It is the failure to work in unison, the lack of harmony in our struggles for recognition. Among laymen this discord among physicians is a by-word, and unfortunately for us, is utilized by them for our own undoing.

While we may adopt various measures after proper discussion and study to ameliorate the economic status of the practicing physician, none will avail us except by a harmonious accord among us.

"A plan entirely suitable for our purposes, to which I have given considerable thought, I now desire to present to you for your earnest consideration. It represents a scale of fees for medical services rendered by the general practitioner in his private practice.

"We are well aware that the prevailing system of receiving remuneration at so much per call, generally three dollars for a home visit and two dollars for an office consultation, is erroneous, lacking in justice to the physician and fairness to the patient. To give such attention to a case as may be found essential for its successful treatment, a physician should not be limited in the number of calls to the bedside because of his desire to retain cordial relations with his clientele by reducing the amount of his bill to a minimum, on the one hand; nor, on the other, are we so entrenched financially that we are willing to make numerous calls gratis, just so that our professional conscience may remain undisturbed.

"A retainer charge, if you please, of a minimum of ten dollars for an outside call for the purpose of diagnosis and treatment of a simple condition such as an acute tonsilitis, which may or may not require one or two additional visits for which no additional charge be made, should be the accepted rule. If a diagnosis be made of a disease of more or less limited duration, such as the more common infectious or communicable diseases, a definite fee be charged at the outset, such as fifty dollars for scarlet fever, twenty-five dollars for diphtheria, fifteen dollars for measles, and with the provision that in the event of complications or sequelae other additional charges in proportion be allowed.

"Such a procedure will put a case completely into the hands of the practitioner who with the sense of security that his calls are not limited by the fear of antagonizing the family, will in fact gain its approval and complete confidence by his earnest attention to the care of his patient."

SCHUYLER COUNTY MEDICAL SOCIETY

The annual Spring meeting of the Schuyler County Medical Society was held at The Glen Springs, Watkins Glen, New York, on June 10, 1926, president Rollin O. Baker occupying the chair, and a quorum being present. Dr. George H. King was elected president, Dr. John M. Quirk, treasurer, and Dr. Frederick B. Bond, secretary, for the ensuing year.

Dr. Albert Warren Ferris was elected delegate to the 1927 meeting of the State Society, and Dr. Rollin O. Baker, alternate delegate.

Dr. John R. Williams, chief of the Medical staff of Highland Hospital, Rochester, read the paper of the evening, on "Hypertension Under the Use of Liver Extract."

Fifteen Physicians from neighboring towns were present, together with their ladies, all of whom were entertained at dinner, before the meeting, by the Management of The Glen Springs.

OTSEGO COUNTY MEDICAL SOCIETY

The Annual Meeting of the Otsego County Medical Society was held in the Oneonta Hotel, December 14, 1926, with Dr. R. W. Ford in the chair, Dr. J. C. Smith recording, and twenty members present.

The nominating committee reported on the following names and on vote the secretary cast a ballot for their election: President, Dr. F. H. Marx, of Oneonta; Vice-President, Dr. F. J. Atwell, of Cooperstown; Treasurer, Dr. F. L. Winsor of Laurens; Secretary, Dr. A. H. Brownell, of Oneonta; Censor, Dr. J. W. Swanson, of Springfield Center; Delegate to State meeting, Dr. A. H. Bissell of Cooperstown; Alternate, Dr. L. C. Warren of Franklin.

Dr. Mills made a report on County Laboratory foundation. After some discussion the matter was left with the same committee for further consideration.

The matter of display diphtheria immunization cards in the waiting room of the physicians was approved.

The Secretary was requested to write Dr. Gordon of Brooklyn to arrange a series of lectures for the Society beginning any time after the middle of March.

Dr. Marx presented a new treatment of varicose veins.

After dinner Dr. John E. Jennings gave an illustrated lecture on "Cancer of the Breast" that was full of interest and information for the members.

DR. JAMES B. CROFF

Dr. James B. Croff, Secretary of the Erie County Medical Society, died suddenly and alone on January 31, in his office in Buffalo. He was well known and respected, and took a deep interest in his County Medical Society and in civic medicine.

THE DAILY PRESS

FAMILY BUDGETS

How much money does it take to support a family? The newspapers have recently discussed that question from the standpoint of the opposite ends of the scale.

The New York Herald-Tribune of January 28 carries an article on the amount spent by the 4,000 families who live on Park Avenue, New York, between thirty-fourth and ninety-sixth streets. The figures are given by the Park Avenue Association, Inc., which made a statistical research into the expenses of the families living in this area.

The average yearly income of the families is over $75,000—while some are over a million. This income is spent for the following purposes:

	Average per Shopping day	Average per year
Amusements, Theaters, cabarets, etc.	$19,230	$5,000,000
Art Galleries and antiques	57,690	15,000,000
Automobiles	38,460	10,000,000
Auto renting	3,840	1,000,000
Candies	7,692	2,000,000
Charity	19,230	5,000 000
Drugs, perfumes, etc.	15,384	4,000,000
Electric Appliances	7,692	2,000,000
Flowers	11,538	3,000,000
Foodstuffs	76,920	20,000,000
Furniture, decorations, rugs, etc.	57,690	15,000,000
Furs	61,536	16,000,000
Garaging	19,230	5,000,000
Gift Things	19,230	5,000,000
Glass and china	7,692	2,000,000
Hairdressing and beautifying	15,384	4,000,000
Hardware	7,692	2,000,000
Jewelry	76,920	20,000,000
Laundries and cleaners	13,461	3,500,000
Leather goods	7,692	2,000,000
Linens, laces, etc.	19,230	5,000,000
Men's shoes	7,692	2,000,000
Men's wear, tailoring, haberdashery, etc.	57,690	15,000,000
Millinery	26,922	7,000,000
Moving and storage	3,846	1,000,000
Music, pianos, etc.	9,615	2,500,000
Real estate (rentals)	69,228	18,000,000
Restaurants and Catering	38,460	10,000,000
Stationery	7,692	2,000,000
Traveling, foreign and domestic	57,590	15,000,000
Women's shoes	15,384	4,000,000
Women's wear	192,300	50,000,000
Yachts	26,922	7,000,000
Totals	$1,096,107	$280,000,000

The expenditures for a family near the other end of the social scale are discussed on February 13, in the New York Times. The article states:—

"How much does a New York family maintaining a fair standard of living require for its needs? The question has been studied by the National Industrial Conference Board, with the cooperation of retail stores, real estate men and business executives.

"A corps of field workers under the direction of Margaret Loomis Stecker, who conducted the survey for the National Industrial Conference Board, went into rooming houses and to numerous social agencies to find out what it costs the working girl to live."

The object of the survey is stated in the following extracts:

"The results, while not offered as a complete analysis of the cost of living in New York City, are held to be a fair approximation of the average minimum requirements to maintain a fair American standard of living. The conclusions are of particular interest since there has been no general study since the Federal survey of 1919. Recurrent wage negotiations furnished a need for the estimate. The effect of the migration of workers from the more densely populated districts to the outer rim of the city provided another striking reason for the study.

"What industrial workers and office workers are actually required to spend now to maintain a minimum standard has been worked out in carefully prepared tables and charts. Employers who are concerned with cost of living statistics as a basis for wage adjustments will find detailed answers to their many questions in the report.

"The Labor Bureau, Inc., using the minimum health and decency budget of the United States Department of Labor as priced to June, 1926, would set an annual total of $2,330.93 as "a bottom level below which a family cannot go without danger of physical and moral deterioration." For the manual worker's family in Queens, the Board's estimate is $436.17 below the Federal minimum and $177.98 less for the office worker."

The actual budgets are discussed as follows:

"The investigation shows that rents, fuel, clothing and other costs fluctuate widely in the various boroughs of New York, while the cost of living is virtually identical in all. An industrial worker's family of five requires, it is, estimated, a minimum of $1,880 a year; an office, or white collar, worker's family of the same size requires $2,119. On this basis the factory worker must earn $36 a week and the office worker nearly $40. Rent continues to be the most impressive burden on the head of the family.

"A Brooklyn office worker, out of his $40 expense every week, must give $10 to the landlord, nearly $15 to the grocer, butcher and milkman, and spend at least $5 to clothe himself, his wife and three children, while more than $9 goes for sundries, including candy, tobacco, insurance, recreation and the like. The same sized family in Manhattan would cost $41.47 to maintain.

"A factory worker who lives in Queens, to provide for his wife and children, splits his $36 weekly minimum expense into $7.38 for the landlord, twice as much for food, nearly $5 for clothing, and about $8 for sundries. In addition, he must pay for coal, which brings his housing cost to the same level as that of the Brooklyn office worker.

"The following yearly estimates are for Queens:

	Manual Worker's Family	Office Worker's Family
Housing	$384.00	$480.00
Fuel, light	87.50	107.80
Food	762.32	762.32
Clothing	248.62	290.63
Sundries	411.32	512.20
Total	$1,893.75	$2,152.95

"Although the cost of living was practically identical in all boroughs, the differences in certain expenses were rather striking. For the families of industrial workers there was a very slight financial advantage to be gained by living in Brooklyn, with Richmond, Queens, the Bronx and Manhattan a little higher in the order named. The average for the city as a whole differed from the average for the separate boroughs by less than $1 a week.

"Although generally his salary lags behind the wages of the mechanic and factory worker, the office worker's expenses were found to be uniformly heavier. He lives in a better house and he has to dress better to hold his job. Not only the kind of clothing but the length of time it may be worn is different from the white collar worker than the factory toiler. His children do not live in an industrial community and therefore have to be better clad. He has to pay more rent than the mechanic who wants to live near the shipyard, refinery or factory where he is employed. Nor can the office worker as a rule take his lunch to the office; he cannot eat as coarse meals and the cost of what he gets is higher."

Comment on these two sets of budgets belongs to statisticians and moralists rather than physicians.

ANTI-EVOLUTION LAWS

The New York *Tribune* of January 10 records the passage of an anti-evolution bill by the lower house of the Arkansas Legislature, and the defeat of a similar bill in New Hampshire where it died in committee.

Bills forbidding the teaching of human evolution in public schools are pending in about a dozen states. Their supporters justify them on religious grounds, fearing that evolution is opposed to current religious creeds that are founded on the Bible, and is especially at variance with the story of the origin of man as told in the Bible. This JOURNAL during the past year has printed comments of leading scientists regarding what is known of the antiquity of man and his origin. (See this JOURNAL, March 15, 1926, page 290; August 1, page 691, and October 15, page 877).

What has this agitation over evolution to do with physicians? One application is that a renowned champion of the literalness of the Bible, Dr. John Roach Straton of the Calvary Baptist Church, New York City, is quoted by the New York *Herald-Tribune* of February 7 as saying:

"There is still undoubtedly a place for the doctor in the scheme of human life, especially in the field of diagnosis prevention, and the simpler forms of surgery. Doctors and drugs are for helping through Nature, and for the natural man and those who do not know the truth. Divine healing is for those who fully trust the Lord and have the faith to walk with Him without any human crutch or dependence whatsoever. The Hebrews throughout their journeyings through the wilderness had no doctors and no drugs. The secular schools of scientific medicine do not make even an effort to get at the root of disease, namely, sin."

Dr. Straton was also quoted as saying that he had come at last to stand with those who are opposed to vaccination of helpless children.

Dr. Straton is representative of the group that consider the Bible to be as literally true in science as in revelation. In contrast with his attitude is that of Dr. Harry Emerson Fosdick whose address on "The Debt of Religion to Science" is printed on page 173 of the February 15 issue of this JOURNAL.

BOOK REVIEWS

METHODS AND PROBLEMS OF MEDICAL EDUCATION. Fifth Series. Division of Medical Education, The Rockefeller Foundation, New York City, 1926. Quarto of 225 pages.

This is the fifth in the series of collected teaching methods published by the Division of Medical Education of the Rockefeller Foundation. Although mostly given over to Washington University and McGill, clinics and departments of other medical schools are included. There is a very interesting description of the Didactiscope, an ingenious reflecting device for witnessing operations and a unique clinical record chart from Mount Sinai Hospital.

C. A. G.

OBSTETRICS. By John S. Fairbairn, M.D. 16mo of 221 pages, with 29 illustrations. London and New York, Oxford University Press, 1926. Cloth, $1.75. (Oxford Medical Publications.)

Fairbairn's little handbook surveys the entire field of obstetrics in a brief yet very comprehensive way. There is not a line of padding in the book. Not just a short text book—or anything like a compend—it is an excellent example of what a text book for the medical student might very well be. The perspective is excellent and detail, though limited, is sufficient. A very creditable and useful book.

C. A. G.

THE ABDOMEN IN LABOUR. Being a General Practitioner's Clinical Study of the Parturient Abdomen. By Norman Porritt, M.R.C.S., L.R.C.P. (Lond.). 12mo.

This little book is unique in that it represents the accumulated observations of a general practitioner in a life long clinical study of the parturient abdomen. Much that he discovered for himself is not new, yet his sketches of fetal positions are very interesting. The book severely criticises the left obstetric position so popular in England, and makes a very convincing argument for the dorsal. Would that all general practitioners had the clinical instinct so well developed.

C. A. G.

GENIUS. Some Revaluations. By Arthur C. Jacobson, M.D. Octavo of 160 pages. New York, (Adelphi Company) Greenberg, (1926). Cloth, $2.50.

It is eminently fitting that this book should be written by a physician, since the critical study of genius in its biological relationships belongs properly to medicine; and it is fortunate for the reader that a physician with such rare qualifications for the task, literary and otherwise, as Dr. Jacobson, should have done it. It is difficult to review the book in limited space because it is so full of interesting things. We can only allude to a few of the topics discussed in it, as:

The relationship of the divided consciousness, the secondary personality, to creative activity. The cases of many geniuses are cited to show how dependant on release from inhibitory mechanisms by various agencies was their creative activity.

The special part played by alcohol in freeing genius from its inhibitions.

Certain pathological relationships of genius, and the disastrous results of the intoxicating and narcotic drugs used by the possessors of genius to release it from its inhibitions, and also the destructive effects of the disease toxins which produced the same release in so many cases. It is pointed out how these possessors of genius sacrificed themselves for their creations, and how the world too often ignored the debt which it owed to them, and treated them with indifference and inhumanity. Which reminds us of what Goethe said of the world's treatment of its geniuses: "Some they stoned and some they crucified."

The relation of tuberculosis to the creative mind. The cases of fifty odd literary stars of the first magnitude are analyzed with special reference to the part played by tuberculosis in their literary productiveness.

The alleged "insanity of genius," which the author denies. A most interesting critical study of the case of Swift is given, and the sanity of that great genius vindicated.

The relationship between double or multiple personality and ethnic hybrisism. The cases of Presidents Wilson and Roosevelt are compared: the former, of fairly pure ethnic strain, did not reveal "incongruous traits assignable to different personalities," while the latter, in whom a number of different ethnic strains mingled, was a "bundle of contradictions." The author cites many cases illustrative of the good and bad effects of ethnic hybridism, but says that "the possession of a multiple personality spells neuroses and psychoses more often than it spells Roosevelt."

The part played by a "bad" ancestry in the development of genius. The author concludes that from the viewpoint of the development of genius such an ancestry is not always to be deplored. He cites the case of Jonathan Edwards, whose paternal grandmother was divorced for adultery and other immoralities, and expresses the opinion that the energy and well known vigor and will to freedom of this grandmother "constituted biologically considered, an excellent inheritance."

The scientific merit of this book, its wealth of literary allusions, its intense human interest and its singular charm of style, give it a wide appeal—to the philosopher, physician, biologist, psychologist, sociologist, literateur, artist and man of culture generally; and also to the "intellectual plebians," to use the author's phrase, whose lower curiosity relishes intimate details about those with shining names. The fact that there are many things in this book which will shock and even antagonize some people will not detract from its interest.

EDWARD E. CORNWALL.

OBESITY. By LEONARD WILLIAMS, M.D. Octavo of 171 pages, with 20 illustrations. London and New York, Oxford University Press, 1926. Cloth, $3.35. (Oxford Medical Publications.)

The author feels that a treatise on Obesity should appear at frequent intervals and indicate the current attitude towards this condition. He writes, "The unlovely condition called corpulence, or obesity, has been divided into three stages, known respectively as the enviable, the comical, and the pitiable. Such a classification is based upon a false estimate of values; for no case of obesity is enviable, most of them are, in a sense, comical, and all are pitiable. There are only two kinds of obesity—the one is alimentary in origin, and is caused by surfeit; the other is endocrine in origin, and is caused by under-action of an endocrine gland." The author, in this volume of 170 pages, shows the ill effects of overeating and insufficient exercise. The second part of his task is to show the evil effects of abnormal action of some of the endocrine glands; this is a speculative field to date. The book has been carefully prepared, is well written and instructive.

H. M. MOSES.

OUR NEIGHBORS

RURAL MEDICAL AND HOSPITAL SERVICES

Extracts from a paper by Dr. W. S. Rankin, DirectorDuke Endowment, Charlotte, N. C., published in the American Journal of Public Health, January, 1927.

The predominant interest of public health has moved farther and farther away from environment and nearer and nearer to man himself. Having cleaned up his surroundings, having cut the trunk lines of morbific communication, having closed practically all avenues of infection except the unsuspected and undetected carrier, public health within recent years has sought to protect where it could not prevent. Prevention is public; protection is personal. So today, especially in the more advanced health departments, we find an increasingly larger part of the budget going into pre-natal clinics, infant welfare clinics, medical inspection of schools, and periodic health examinations.

The future of public health will be determined by the medical services of the country—by their adequacy and their availability.

Personnel and Facilities.—In considering the adequacy and availability of the medical services of this country, let us be sure that we have the same understanding as to what the term is intended to include. Medical services as here used consist of two parts: (1) medical personnel, and (2) medical facilities or hospitals. Medical personnel and medical facilities are so closely related that we get a wholly distorted picture if we look at the one without the other. Adequate facilities—a good hospital service, with the assistance of nurses and technicians—enables one doctor under urban conditions to do the work of at least two doctors without such assistance. And under rural conditions, where spaces are great and time consumed in travel commensurate, adequate facilities will enable one doctor, with his patients brought to him and with the assistance of nurses and technicians, to do the work of not less than three or four doctors without such supplementary services. With medical facilities restricted or absent, a large medical personnel is necessary; with facilities provided and adequate, a small medical personnel can meet the needs.

Adequacy of Medical Services.—From time to time it is charged that the medical services of this country are inadequate. These charges rest largely upon a decrease in the number of medical schools since 1906 and an increase in population. The proportion of physicians to population fell off but 15 per cent, from one physician for 670 people, to one for 772 people, an addition to the average practice of 102 people. Along with this slight decline in medical personnel in proportion to population there occurred a tremendous increase, more than 100 per cent, in medical facilities or general hospital beds. Keeping in mind the fact that facilities double and treble the service arm, the reaching power of the doctor, and that medical services include *both* personnel and facilities, we are safe in saying that medical services have not been decreased, either absolutely or relatively, since the change in the order of medical education and practice (usually regarded as effected in 1906). On the contrary, medical services have been greatly augmented. With one doctor for every 772 people, and with 2.5 general hospital beds for every 1,000 population there is no inadequacy of medical services in this country about which to become alarmed. There are other phases of the medical problem far more deserving of our concern.

Availability of Medical Services.—Medical services may be adequate but not so distributed or placed as to be physically and financially accessible to a large proportion of the population.

With respect to medical personnel, for the year 1923, in towns of 1,000 population and under, there was one doctor for 1,238 people; in cities of 100,000 population and over, there was one doctor for 536 people, or, in other words, the medical personnel serving urban people was twice that serving rural people. In places of intermediate population groups there was a corresponding intermediate proportion of doctors to people.

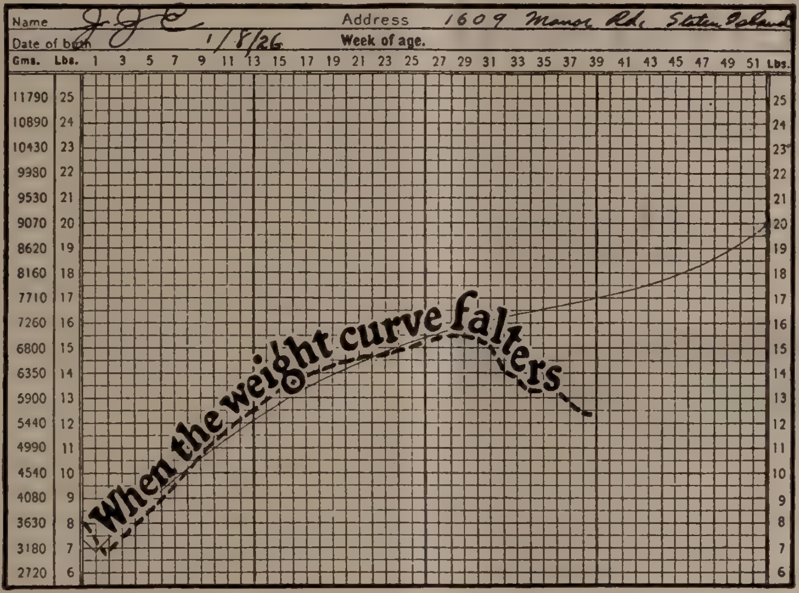
The disproportionate medical personnel is not wholly quantitative; it is also qualitative. The doctors of urban communities are, as a rule (to which there are notable exceptions, of course), the best doctors. The urban population is at least four times better served than the rural population with scientific medical care.

Availability of Facilities.—Taking into consideration the fact that the city has twice the medical personnel and, man for man, twice as efficient medical personnel as the country, and that the city has from three to four times the medical facilities of the country, it is most conservative to say that the rural medical services of the United States are considerably less than one-fifth as adequate as urban medical services.

Advantages and Economy of Efficient Rural Medical Facilities.—Rural hospitals or improved rural medical facilities will do three things in the building up of an efficient rural medical service.

First, they will make it possible for the best men now located in the smaller towns and cities to enlarge their field of service, (1) by supplying these men with the same nursing and techni-

(*Continued on page 268, adv. xvi*)



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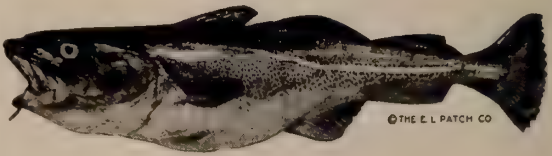
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(*Continued from page 266*)

cal assistance that is available to the medical personnel of urban centers; and, (2) by assembling the patients and so saving the time of these better types of rural physicians which would otherwise be consumed in country travel. By such assistance plus such saving of time it would be possible for one first-class rural practitioner to give from two to four times the service that is possible without hospital facilities.

Second, improved rural medical facilities will attract more first-class medical men to rural practices and, in so doing, relieve an urban medical congestion that had engendered a spirit of commercialism in medicine, and also relieve a rural depletion of medical personnel that has aroused public concern which has threatened reactionary legislation.

Third, rural hospitals will not only afford a more efficient medical service, measured by modern standards, but will supply a far more economical medical service than is at present available to rural communities.

One good doctor plus a hospital is equal to not less than three good doctors minus a hospital. An average county of 30,000 people, let us say, is served by 20 doctors; the average income of the twenty doctors, that is, the cost to the community per doctor is $5,000. A county is far better supplied with medical services with one hospital plus twelve doctors, than without one hospital plus the twenty doctors. In added medical facilities and subtracted medical personnel we would have an improved medical service with the saving of the cost of eight doctors at $5,000 each, an annual saving of $40,000. This would more than pay the cost of the hospital to the public for both construction and the treatment of one-third of the patients as charity cases.

The public economy of the rural hospitals appears when we consider (1) the saving of medical mileage fees to rural residents, and (2) the saving in the number of doctors necessary for rural practice. Ordinarily a mileage fee of seventy-five cents is charged for travel beyond the town or city limits. For a rural resident living from six to ten miles in the country, this means a mileage fee for each visit of from $4.50 to $7.50—a sum more than sufficient to pay the hospital charges, including in most cases nursing service and drugs; and a treatment given in the hospital will be from two to three times more efficient than that which is possible in the home.

Provide rural hospitals and establish that magnetic influence in rural medicine that has attracted the larger and better part of the profession, with the depletion of rural sections for medical care and the congestion of urban cultures with medical personnel. Provide rural hospitals and establish that vitalizing influence in medicine without which scientific medicine becomes sluggish, incapacitated, inert, dead.

SKIN TESTS IN BRONCHIAL ASTHMA

The February issue of the *Atlantic Medical Journal,* the official organ of the medical societies of Pennsylvania and Delaware, contains an article on "The Interpretation of Skin Tests in the Diagnosis of Bronchial Asthma" by Dr. Richard A. Kern, of Philadelphia, Pa. The following extracts from his article describe some of the observed discrepancies between the manifestations of protein sensitiveness in the bronchi and those in the skin.—Editor's Note.

When the allergic nature of certain diseases—asthma, hay fever, vasomotor rhinitis, some types of eczema, and others—became recognized a few years ago, skin testing was hailed as a valuable addition to our diagnostic armamentarium, and such it has indeed proved to be. However, many discrepancies have been found between the skin reactions, on the one hand, and the clinical picture and therapeutic results on the other; discrepancies which have led the unskilled into error and which have shaken the faith of many in the value of the method. The proper interpretation of skin tests and their limitations are the subject of this discussion. Skin reactivity does not parallel either the intensity or the type of the clinical picture presented by the patient. Skin hypersensitiveness is one manifestation of general hypersensitiveness. Fortunately for us, it usually accompanies hypersensitiveness of other parts of the body, for instance the nasal or bronchial mucosa, but it may be greater or less in degree, or perhaps, wholly absent, or it may be present alone, without clinical manifestations of hypersensitiveness elsewhere. These various combinations give rise to obvious difficulties.

Skin reactivity is not proportional to the severity of the clinical picture. Of two asthmatics, both sensitive to horsehair, the one may give a very markedly positive skin reaction to horsehair protein, while the other reacts only very slightly. Therefore, we cannot judge the severity of the disease by the result of the skin test. What is more important, it makes it more difficult to decide what to call a positive reaction.

Another type of reaction that may easily be overlooked is the delayed positive. These are apparently very rare, but the writer has met one undoubted example. A patient with angioneurotic edema on several occasions by both cutaneous and intracutaneous testing with onion protein gave a reaction that never appeared in less than two or three hours, and which would increase for as long as twenty-four hours when the material was injected into the skin. If he ate onions, he would invariably have a severe outbreak of urticaria to the point of frank purpuric lesions.

Is skin sensitization ever completely absent in the presence of hypersensitiveness elsewhere in the body? I believe that this does occur. Va-

(*Continued on page 270—Adv. xviii*)

OLD FRIENDS ARE BEST

TIME provides the acid test for many things. Acquaintance grows into respect and respect into friendship as the years pass and positive qualities have an opportunity to assert themselves. It is thus with human friendships, and we see a marked parallel in the relation of the physician to the drugs upon which he relies.

New and untried remedies come and go. Many enjoy a brief moment of popularity. Few survive the acid test of time.

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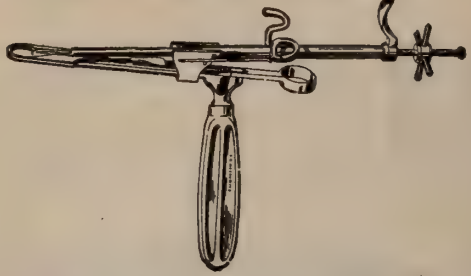

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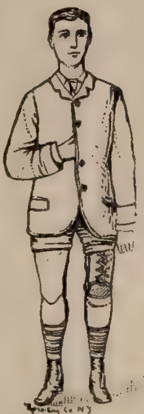

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CRUCHES AND ACCESSORIES

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rious observers have seen cases of typical seasonal hay fever or combined hay fever and asthma, yet with negative skin reactions by all methods of testing. Occasionally such a patient will give a weakly positive conjunctival or intranasal reaction to a pollen extract, pointing to a true pollinosis in these individuals.

Skin reactivity may be so excessive as to be very confusing. This occurs in those individuals with dermatographia, in whom the slightest trauma to the skin causes a marked angioneurotic local swelling. In these patients, the reading of tests by the intracutaneous method is particularly difficult, for the control as well as all the tests may give characteristic wheals with irregular "pseudo-pod" outlines and a wide zone of erythema.

Skin reactivity is often present when there is no clinical manifestation due to the substances reacting positively. It is a common experience in testing an asthmatic to obtain positive reactions to one or more foods, yet eating or abstaining from these foods may have no influence on the patient's symptoms. This is probably explained in this way: Skin tests with foods do not duplicate what happens clinically. In the test a native unsplit protein is artificially brought in direct contact with cells and serum, and if sensitization to that protein exists, a positive reaction will occur. But, practically, conditions are quite different; many of our foods are first much altered by cooking; they are then probably rendered harmless by the processes of digestion; and they come in contact with an unbroken mucous membrane.

Variability in skin reactivity is not merely an individual one. Age also seems to play a part, and younger patients react more strongly than do those of more advanced years. This may account in part for the greater number of diagnostic failures in the latter. Occasionally, we find that a patient may react to a given substance in a variable degree on different days. A weakly or a questionably reacting protein may on second testing give a definite positive. Therefore, slight or questionable reactions should always be repeated.

It is obvious that skin tests have very definite limitations. Far from giving us a true picture of the etiology in a given case, they might be said to show us a much distorted image in an imperfect mirror with many flaws and not a few blind spots. To interpret the reactions properly, we must have a full realization of their shortcomings least we fall into frequent error. Yet with all their deficiencies, the fact remains that skin tests constitute our most valuable single aid in diagnosis of human hypersensitiveness.

HEALTH RESOLUTIONS

The Texas State Journal of Medicine for February prints the following health resolutions for laymen which have been promulgated by the State Board of Health:—

"I shall have a complete physical examination made by my family physician at the earliest opportunity to determine if any defects exist, which, if corrected now, would prevent serious organic trouble in later life.

"I shall give my children protection from diphtheria by having my family physician make them immune to this disease by administering toxin-antitoxin.

"I shall safeguard the health of my family and community from smallpox by the only known method to prevent this disease—that of vaccination.

"I shall do everything possible to prevent the spread of communicable diseases by not unnecessarily exposing my children to infection from others who are victims of diseases termed 'catching,' and by keeping them from school when suffering with suspicious colds, or running temperature, that they may not be a source of infection to others.

"I shall promote birth registration in my community by being certain that my children are properly registered with the vital statistics department of the State Board of Health, and by ascertaining if the physicians of my community are promptly registering all local births.

"I shall give my city and county health officials every assistance possible in making my home community one of the most healthful spots in the state.

"I shall drive my car in a manner that will not endanger my own life or the lives of others."

The Journal comments as follows:

"While we are making resolutions for the New Year and while we are discussing the matter of New Year's resolutions with our friends and patients, why not consider the problem of health? It would require very little effort on our part to induce a large number of our patrons to think in terms of good health throughout the year and therefore resolve in terms of good health at this time of the year. Of course, we would lose somewhat by the lessened amount of illness in our clientele, but in the long run there would be no actual economic loss, for the reason, very largely, that our people would be better able to pay us better prices for what we do for them and we would have more time in which to prepare ourselves for the service we are to be called upon to render, for which we are to be paid in proportion."

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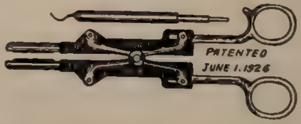

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RABIES IN THE VICINITY OF NEW YORK CITY

Rabies has been prevalent in the vicinity of New York City, especially in White Plains, in Nassau County, and in several parts of New Jersey. The *Journal of the Medical Society of New Jersey,* for February, contains the following article by J. V. Mulcady, Chief, Bureau of Bacteriology, New Jersey State Department of Health.

"During the year ending June 30, 1926, the laboratory records show that rabies has occurred in twenty of the twenty-one counties of the state. Those centrally located are most affected at the present time, Mercer County showing 39 rabid animals; Camden, 22; Burlington, 19; Middlesex, 24; and Monmouth, 25; the remainder being distributed through the other 15 counties.

"Since May, 1926, all mail reports supplementing telegraphic reports sent out from the laboratory have included a request for information concerning persons bitten. Responses show that there have been victims of rabid dogs in 15 different counties of the state—a figure sufficiently impressive to prove that whatever legislation is urged for the control of this disease is in the interest of public protection.

"During a period of three years prior to 1926, ten deaths from rabies occurred in persons bitten by rabid dogs. Since March, 1926, seven persons have died from this cause, four of these despite the fact that the Pasteur treatment was given. In one of these four cases there was a delay of nine days before the treatment was started, and death occurred before it was finished, but in the remaining three the course of injections had been completed.

"It is not possible to determine accurately the number of persons bitten during the year by rabid dogs, as bites from dogs are not reportable in this state. From information at hand, it seems certain that practically all of the 202 animals found rabid by the State Laboratory had infected from one to six persons. Therefore, a conservative estimate of the number of persons obliged to undergo Pasteur treatment as the result of bites from rabid dogs in this state would be between 400 and 500. The same rabid dogs transmit the infection to other dogs and often to valuable livestock, which in turn become new foci of infection and a continued menace to individuals with whom they come in contact. It seems only reasonable to observe that if a situation causing even a fraction of the damage done by rabid dogs was occasioned by any so-called wild animal at large in the state, effective means would be at hand to cope with this condition."

Three methods of controlling rabies are in common use. (1) Muzzling all dogs running at large; (2) Destruction of stray dogs; (3) Preventive inoculations with anti-rabic vaccine.

Of all these, that of destruction of homeless stray dogs is considered to be the most effective. The inoculations are also efficient, but the difficulty is to get it given to the stray dogs. The owner of a pet dog can protect his animal with the inoculations: the stray dogs ought to be destroyed on grounds of general sanitation.

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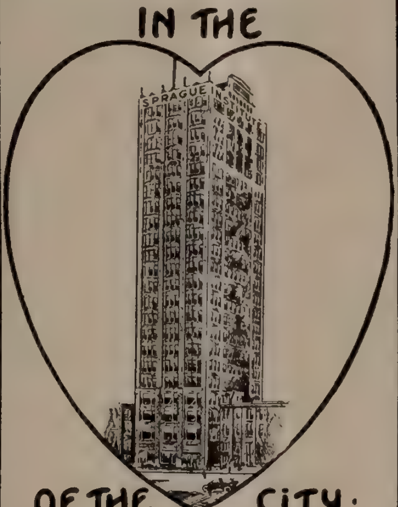

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"It will be a great day for the public health when the people of this country generally appreciate that public health administration is not politics, is not plumbing, and is not clinical medicine.

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"The new and valuable element of the school program lies in its emphasis upon the health practices of the child while he is in the habit forming stage. The department of superintendence of the National Education Association in its fourth Yearbook, states that an adequate health program in the modern school system consists of three types of activities: health services, physical education and health education.

"What can the health officer do to advance this educational movement? First he will familiarize himself with health education and the whole health program. Second, he will see to it that the children in the grades that are studying community health are invited to send a deputation to the Health Department to see how it is run. He will arrange the basis of departmental relationship in such a way that the School Department and Health Department are friendly and cooperative, and he will then be in a position to help the School Department in planning its health education program. The health officer should accumulate a complete set of health education source material at the Health Department, and make it easy for this material to get into the hands of teachers. The school teachers should be put on the mailing list for news letters, bulletins, and other materials which they will interpret to the coming citizens.

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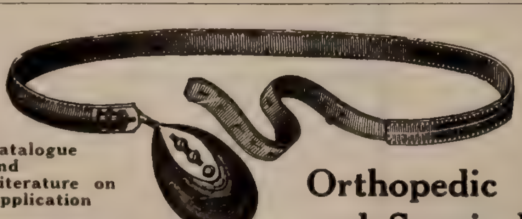

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THE MEDICAL STUDENT AND HIS RELATION TO THE CANCER PROBLEM*

By BURTON T. SIMPSON, M.D.,

Director State Institute for the Study of Malignant Disease, Buffalo, N. Y.

Introduction

ONE of the outstanding problems in medicine today is the cancer question. There is widespread interest throughout the entire civilized world in regard to this subject. Each country has one or more institutions for the scientific investigation of this disease and societies for the education of the laity in regard to the prevention of cancer, are numerous.

What is the cause of this widespread interest? Briefly, (1) statistics seem to show that cancer is on the increase and (2) therapeutic relief for cancer has not kept pace with other advancements in medical science.

It is estimated that there are approximately 120,000 deaths from cancer each year, in the United States and that there are nearly 300,000 persons suffering from this disease. In New York state, cancer is the most frequent cause of death among women between the ages of 45 and 65 and is second among men of the same age. Cancer ranks third as a cause of death, only heart disease and tuberculosis have higher death rates. Of 100 boys ten years old, the probability is that more than eight will eventually die of cancer. Of 100 girls ten years old, more than eleven will eventually succumb to this disease.

The present accepted therapeutic methods for the treatment of cancer are surgery, radiation, diathermy and cautery. It is recognized that these methods, under the most skillful hands, obtain only about 30 per cent. of cures of all cancer and in this is included the basal cell epithelioma which responds favorably to appropriate treatment in 95 per cent. of cases.

A careful study of the cured cases reveals the fact that the majority of them were treated when the disease was localized. Thus our hope for improving our statistics lies in the fact that we must see the cases in the early stages of the disease, recognize them and institute prompt measures for their proper treatment. This may be accomplished first by educating the laity to recognize precancerous signs or lesions and the necessity of immediately consulting their physician. Secondly, to impress upon the medical man his responsibility in this matter when consulted.

In this country we have the American Society for the Control of Cancer which is doing wonderful work in educating the people to realize the importance of consulting their physician upon the first appearance of any abnormal lesion. Thus the responsibility for the recognition and prompt treatment of early cancer is being placed more and more upon the medical man. It is concerning this phase of the cancer problem that I wish to discuss with you.

Naturally, the proper place to begin an educational campaign on a medical subject is the medical college. History bears this out. A marked advancement in the treatment of tuberculosis was not made until the medical student was thoroughly grounded in the early signs of this disease. "Inflammation of the bowels" almost disappeared from the medical map, when the student learned that there was such a disease as appendicitis and was taught its early signs and symptoms. Undoubtedly cancer will yield to a large extent, when the medical student is impressed with the importance of its early recognition and is taught its natural history, its early signs and the necessity of prompt action in the treatment of this disease.

Etiology

An enormous amount of research work has been done during the past twenty-five years, in trying to solve the problem of the cause of cancer. Numerous organisms have been cultured from malignant neoplasms, some of which have been thought by their discoverers to be specific. However, none has received general confirmation and it is the consensus of opinion among the foremost research workers in cancer, that this disease is not of infectious origin.

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* Read before the Medical Students of the University of Buffalo, May 4, 1926.

Cancer has been produced artificially in animals by several different methods, such as the painting and the injection of tar and other chemicals, the feeding of nematodes and eggs of cestodes and also the application of X-rays. All of these procedures depend upon the factor of chronic irritation. However, not all the animals treated develop malignant disease so there must be an element of a special tendency toward cancer in those that do. The most generally accepted theory of the origin of cancer today, is a two-factor one. (1) An extrinsic irritation, usually long continued and (2) a hereditary tendency. Much experimental evidence can be brought forward to substantiate this theory.

Natural History

Cancer, at first, is always localized and is amenable to cure if properly treated while in this stage. It is rarely an acute disease and is nearly always preceded by some chronic lesion or embryonic benign tumor. I do not believe that cancer ever begins in a healthy spot.

An unfortunate fact is that in the early stages, cancer is not accompanied by pain. Often upon inquiring why patients have waited so long before consulting a physician, the answer is given that as there was no pain, they did not think it was serious.

The beginnings of cancer are scaly areas, sores, unhealed wounds on the skin or the mucous membranes, elevated warts or pigmented moles, nodules under the skin or in the breast, swelling or pain in the bones or joints. These are all external and are easily seen or felt. Detection is somewhat more difficult with internal cancer. However, there is nearly always a distinct message in the form of discomfort, sensation of heat or weight, indigestion, pain or abnormal discharge. This latter is, as a rule, blood tinged. These early signs will be emphasized in the descussion of cancer of the various organs.

Dissemination

Cancer is the result of an abnormal proliferation of cells in an area which is the site of chronic injury. Although in some cases, the cells remain localized and produce a bulky tumor mass, in the majority of cases and ultimately in all, the malignant cells grow into the clefts and spaces of the surrounding tissues and eventually penetrate the lymphatic vessels and are carried to the neighboring lymphnodes where they proliferate and thus set up secondary deposits known as metastases.

It is due to this characteristic of the disease, that we have the high mortality from cancer, for wherever malignant cells have penetrated and lodged, we have a potential cancer and this is frequently beyond the reach of the surgeon's knife or the safe penetration of the radiation wave. Thus again are we reminded of the necessity of an immediate attack upon all precancerous lesions and the site of early malignant disease.

It is a well recognized fact that today the majority of cases of cancer reach the surgeon in an advanced stage of the disease. It is usually the patient's fault, but there is evidence to show that the medical practitioner is not entirely blameless. We have had cases of rectal cancer come to the clinic who have never had a rectal examination by their doctor. In fact, some have been treated for hemorrhoids and pruritis ani, by salves, prescribed by the physician upon the patient's diagnosis. It is not rare to have a breast cancer patient tell us that her doctor had not considered the lump in her breast serious, especially if it had not shown evidence of recent growth. Many similar incidences might be cited.

It would probably be of most value if we consider the common places where malignant disease occurs and discuss the important facts in connection with each.

The word "cancer" should include all types of malignant neoplasms but this term has been restricted, by many, to malignant tumors composed of epithelial cells. Perhaps some other term could be substituted to include all. "Malignant Disease" has been suggested, but this term would include Hodgkin's Disease, the leukemias and some others which are not accepted by all as neoplasms. Malignant neoplasms are generally divided into two groups, viz., sarcoma and carcinoma.

The sarcomata comprise about 10 per cent. of all malignant tumors. They are mesoblastic in character, occur more commonly in the young and usually metastasize by way of the blood stream. Therefore, the metastases are commonly found in the lungs.

The carcinomata comprise about 90 per cent. of malignant tumors, originate in epithelial structures, usually begin to appear after 20 years of age and reach their maximum between 45 and 65. They commonly metastasize by way of the lymphatic vessels and thus the regional lymph nodes are the usual site of metastatic deposits. Although the word "carcinoma" is commonly applied to all malignant epithelial tumors, many restrict this term to those originating from glandular epithelium and use the word "Epithelioma" for malignant neoplasms originating in protective epithelium.

It would be impossible in the time allotted to this lecture, to consider all the organs which may become the site of cancer. A brief review of only the more important ones will be attempted.

STOMACH

Cancer of the stomach is the most frequent cause of death from malignant disease. It occurs nearly equally in both sexes. The average reports of cures is about 5 per cent. Carcinoma of the stomach is one of our most difficult problems, for nearly half of the cases are well advanced before they have symptoms which urge them to seek medical advice. The other half have symptoms of indigestion which are so common among civilized people that often little attention is paid to them. Nearly all the cases that remain well after operation are either of the type that remains localized for long periods or are early ones that are discovered at operations for gastric ulcer. Patients past 30 who complain of chronic indigestion should have a thorough examination consisting of radiograms, gastric analysis and the examination of the stools for occult blood.

UTERUS

Cancer of the uterus causes nearly 13,000 deaths in the United States each year. When we consider that 35 per cent. of this type of malignant disease is cured, one cannot help but be impressed with its frequency. 90 per cent. of uterine cancer has its site in the cervix and it is the type that affects younger women. As cervical cancer occurs almost exclusively in married women, it is reasonable to presume that injury to the cervix is intimately associated with its development.

As we are prone to look upon cancer as a disease of middle life, I wish to warn you, that here is a type that may occur very early, that is in the twenties. We had two patients in our hospital at the same time, both under 21, who were suffering from well advanced uterine cancer.

If uterine injuries play a role in the causation of cervical cancer, it is clearly our duty to be on the lookout for such lesions and to insist upon their immediate repair.

In view of the frequency of cervical cancer, I believe that the medical practitioner should make it a rule to examine carefully, at least once a year, the cervix of all the married women among his clientele. Any changes observed in the menstrual periods, especially a blood-tinged discharge between them, demands a thorough examination, as this is one of the early signs of beginning cancer of the cervix.

BREAST

Theoretically we should have no deaths from cancer of the breast for the disease is early discernible and is susceptible to complete removal. However, only about 25 per cent. of the persons afflicted with breast cancer survive the five year period.

The histories of the cured cases, show, in the majority of them, that the disease had remained localized. Thus death usually occurs from metastases. How are we to reduce the mortality from breast cancer? First we must educate the woman to consult her physician the moment she observes any abnormal condition in her breast. Secondly, the consulted physician should recognize his responsibility in the matter. Any single lump in the breast of a woman past 25 demands the immediate attention of a competent surgeon. Another point which I wish to stress is that the patient should be warned not to handle the tumor nor let anyone else do so, for we have experimental evidence to show that metastases can be made to occur prematurely by massage of a malignant tumor. This the physician himself should realize and thus make his examination as brief and gentle as is possible.

Cancer of the breast rarely occurs before the age of 25. It is as frequent in single women as in married ones, although in the former it occurs at a more advanced age. It is intimately associated with chronic mastitis and some recent experiments seem to show that stagnant milk plays an important role in the origin of this disease. In connection with this, it might be well to call your attention to the fact that cancer of the breast is second in frequency among English and American women, and it is next to last among Japanese women. It seems to me that this should be an argument to persuade women to suckle their young. In any event, it should be an indication to empty the breasts of those women who will not or cannot nurse their offspring.

INTESTINES

The great majority of intestinal cancer occurs in the colon and rectum, the small intestine being singularly free from this disease. In the colon the most common sites are at the flexures which correspond to areas of mechanical injury. Of these the caecum and the sigmoid flexures are the most important. About one half of intestinal cancer is found in the rectum. Chronic constipation and blood in the stools are two common symptoms of intestinal cancer. On account of the medical man's keenness for the region around the appendix, caecal cancer is often discovered fairly early but as much cannot be said for rectal and sigmoid cancer. There seems to be a natural aversion for the practicing physician to make a thorough rectal examination. This is regrettable, for cancer of the lower bowel often remains localized for long periods and if recognized, is amenable to surgical treatment. Let me, therefore, urge you to realize the importance of not only making a digital but also a proctoscopic examination of all your patients in the cancer age, who complain of rectal disturbances.

Mouth

Under this heading we will consider the lip, the tongue and the lining of the mouth. Cancer in these locations occurs largely in men, especially those who use tobacco to excess. However, cancer of the mouth does occur in women and also in men who do not use tobacco. But a significant fact in this connection is that in certain parts of India where both sexes have the habit of chewing the betal nut, cancer of the mouth is as frequent among the women as it is among the men. As a matter of fact, mouth cancer is the most common manifestation of this disease in India.

Cancer of the lip occurs most frequently upon the lower one and if the man is a pipe or cigar smoker, its site corresponds to the area where the pipe is held. A pimple or slight sore which does not heal is usually the first sign. Often the malignant lesion is preceded by a white patch called leucoplacia. Leucoplacia is followed by cancer in about 25 per cent of the cases. It is nearly always due to smoking and the complete abstinence from tobacco will cause this lesion to disappear. Lip cancer is a preventable disease for it is nearly always accompanied by a sufficient warning.

Cancer of the tongue is a very fatal disease because the mucous membrane from which it springs lies directly upon the muscle, and therefore, has no submucosa. Thus the malignant cells gain early entrance into the lymphatic channels.

Cancer of the tongue is also associated with excessive smoking and leucoplacia is frequently found upon this organ.

However, ragged teeth and a dirty mouth are probably more important. I have never seen a case of cancer within the mouth, where the teeth were in good condition. Our experience shows that over half of our mouth cases give a positive Wassermann reaction. A chronic ulcer on the edge of the tongue is always a precancerous lesion.

What has been said for the tongue, also applies largely to the lining of the mouth.

Skin

Skin cancer probably never begins in a healthy spot. It is usually preceded by a diseased area, as an unhealed ulcer, a pigmented mole, an ulcerated wart, a burn, lump or nodule. These conditions often persist for long periods before they undergo malignant change. It is, therefore, our responsibility and our duty to persuade patients with such lesions to have them attended to at once.

Cancer occurs in the skin in two forms, viz., (1) the basal cell epithelioma, and (2) the pearl cell epithelioma. The basal cell type is comparatively benign, rarely metastasizes and can be cured in 95 per cent of cases. It is nearly always confined to the face. It has its origin in the glands of the skin. The pearl cell type, on the other hand, is more malignant, metastasizes freely and is the type that originate at the edges of chronic ulcers, old burns, etc.

A type of cancer that occurs on the skin and takes its origin from pigmented moles, is the malignant melanoma. This is a very malignant type of tumor for it metastasizes early and very extensively. Elevated pigmented moles, especially those subject to irritation, should be removed.

Bone

I include here sarcoma of bone for our results in this type of malignant disease have been discouraging. The malignant cells get into the blood stream very early and are carried to the lungs. Amputation is, therefore, without avail after metastasis has occurred.

Our hope in bone sarcoma is the early recognition of the disease. The warnings are local pain, swelling or impaired function. An immediate X-ray picture is imperative. As a matter of fact, I believe that there should always be an X-ray picture taken after any bruise or injury to a bone or joint.

Conclusion

As medical students you are now preparing yourselves for your life work. After you get into practice you will often wish that you had paid a little more attention to this or to that subject while in college and will regret that you did not make the most of opportunities offered you. In your hospital experience you will have many opportunities to observe and study cancer cases, but not many early ones, nor many precancerous lesions. Take time to learn all you can about the natural history of cancer, the lesions that are liable to become cancerous, and the early signs and manifestations of this disease. It will also become your duty to aid in the educational propaganda, especially among your own patients, warning them of the danger of delay and pointing out the probability of a cure if this disease is treated in the early stages. Upon you will rest part of the responsibility for the prevention and reduction of the mortality from this modern scourge.

CAESAREAN SECTION BY A NEW METHOD*

By GEORGE L. BRODHEAD, M.D., EDWIN G. LANGROCK, M.D., and
CHARLES S. B. CASSASA, M.D., NEW YORK, N. Y.

THE purpose of this paper is to present for your careful consideration a new method of performing Caesarean section. This new procedure is not an improvement on the classical Caesarean section, but an operation to be done on those patients in whom a classical section would be fraught with the greatest dangers, namely those in which: (1) The patient has been in labor a long time; (2) The membranes have been ruptured for many hours; (3) Numerous vaginal examinations have been made; (4) Attempts at delivery per vaginum have been made; (5) There is a suspicion of uterine infection; (6) There is intercurrent infectious disease. In this class of cases, the operation we are about to describe will give the best result for the mother.

The mortality of classical Caesarean section is far from negligible as evidenced by Reynold's[1] statistics in which he found it to be "1.2% when done before labor; 3.8% when done early in labor, and 12% when done late in labor." Routh[2] gives a mortality of "2.9% when the classical operation was performed before rupture of the membranes; 10.8% after their rupture and 34.3% following repeated examinations or previous attempts at delivery." Williams[3] states that "no matter how good the operator or how perfect his technic, it would appear that the mortality even in apparently uninfected women, will depend in great part upon the period of labor at which the operation is undertaken." According to Newell[4], patients who have been repeatedly examined during labor, even under strict asepsis, in whom the membranes have been ruptured for a considerable period, in whom attempts have been made to induce labor by means of a bag or bougie, or in whom serious attempts at pelvic delivery have been made by operative means, are poor risks for the classical Caesarean section. This class of patients we shall call the potentially or presumably infected class.

If a classical Caesarean section is done on a patient in this presumably infected class, her death is usually due to peritonitis. Loss of life from hemorrhage or causes other than peritonitis is not considered in this paper, for these maternal deaths the new operation we shall describe, does not prevent. Peritonitis following Classical Caesarean section is usually caused in two ways: first by contamination of the peritoneal cavity with the infected uterine contents, amniotic fluid, blood, fetus, placenta, etc., at the time of operation, the so-called initial spill, and second, leakage of infected lochia from an infected uterus, through the uterine suture line. That the abdominal cavity may be infected by the initial spill is self-evident. If a quantity of germ-laden amniotic fluid or blood from the interior of the uterus comes in contact with the peritoneum, as it does no matter how carefully the peritoneal cavity has been protected with abdominal pads, this entrance of infected material cannot be considered innocuous.

Newell[5] states that "in patients who have been repeatedly examined during labor, it is almost certain that infective organisms have been introduced into the uterine cavity, and contamination of the peritoneum or infection of the uterine wound is probable." Newell[6] further states that "it is a well recognized fact that premature rupture of the membranes predisposes markedly to infection of the amniotic cavity." Slemons[7] has shown that infective organisms not infrequently invade the placenta and are even transmitted to the fetus. It is evident therefore that a patient is exposed to great danger of peritoneal infection when under such circumstances she is subjected to a classical abdominal delivery, for it is very difficult to avoid infection of the peritoneum when the uterus is opened.

Polak[8] fears this initial spill, for he wrote in describing the Hirst operation that "the general peritoneal cavity in this operation is not contaminated by any leakage of liquor amnii." Polak also states that "women who are long in labor with ruptured membranes have numberless bacteria in their uteri, many of which are pathogenic; the classical celiohysterotomy exposes the peritoneum to infection from this source."

That the peritoneal cavity may be infected by leakage through the uterine suture line by infected lochia is also self-evident, for, a uterine wound bathed in infected lochia with perhaps some of the stitches disintegrated and here and there a portion of the uterine wound wide open, must necessarily be the causative factor of a general spreading peritonitis.

An operation therefore in order to insure the patient against peritonitis from these two causes must first, absolutely prevent the initial spill from entering the peritoneal cavity, and must, second, so place the sutured wound in the uterus that any leakage of infected lochia through it, will not enter the peritoneal cavity. In the operation, the technic of which will now be described, both of these objects, have been accomplished.

Some years ago, Hirst[9] modified the operation devised by Veit[10] and was successful in excluding both the initial spill and the subsequent leakage from the peritoneal cavity. Hirst incises the visceral peritoneum on the anterior surface of the uterus in the mid-line, detaches it from the uterus in the lower uterine segment, opens the utero-vesical space and with retractors crowds the bladder downward and forward. This detached incised uterine peritoneum he unites with the parietal peritoneum, thus leaving the denuded anterior uterine wall exposed through which he can empty the uterus and yet prevent any of the uterine contents from entering the abdominal cavity. In repairing the wound, he sews the united visceral and parietal peritonea over the sutured myometrium thus preventing any leakage from the uterine wound into the peritoneal cavity.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 30, 1926.

This modification by Hirst of the Veit operation made it possible to deliver potentially infected patients by the abdominal route without danger of peritonitis. The operation, however, was not universally adopted; and we believe that we have so altered and improved the method of Hirst and Veit, that we have made it possible to do the operation so quickly and easily that it should be the method of choice in performing a section on a presumably infected patient.

Dr. Charles S. B. Cassasa, Associate Attending Surgeon at the Harlem Hospital, devised in 1916 the method which we are about to describe. He reasoned that the procedure was a safe one from the surgical standpoint and his enthusiasm and cooperation prompted us to try it; with the result that in thirty cases, all manifestly unfit for the classical Caesarean section, we had no death from peritonitis.

The purpose of the operation is to secure a quadrilateral area on the anterior surface of the uterus, through which the baby may be extracted and at the same time, have this area excluded from the general peritoneal cavity. This quadrilateral area, six inches long and three-quarters of an inch wide, is obtained by suturing the peritoneum of the anterior abdominal wall to the peritoneum on the anterior surface of the uterus. The procedure is as follows:

A para-median incision is made about seven inches in length beginning at a point one inch above the navel and extending downward toward the symphysis; the peritoneal cavity is opened in the usual manner. A stitch of plain catgut is placed horizontally at the upper angle of the wound, uniting the peritoneum of the anterior abdominal wall to the anterior surface of the uterus. This stitch is tied and a clamp placed on the shorter end; this clamp to be used later as a tractor. With a second needle and suture a stitch of plain catgut is then similarly placed at the lower angle of the wound, horizontally, uniting the peritoneum of the anterior abdominal wall to the anterior surface of the uterus. This stitch is also tied and a clamp placed on the shorter end, this clamp also to be used later as a tractor. These two stitches form the upper and lower limits respectively of the quadrilateral space. The vertical limb of the quadrilateral on the right side is made by utilizing the long end of the first suture which was placed at the upper angle of the wound and sewing downward to the lower angle of the wound. This is a continuous overlapping suture and is placed three-eighths of an inch from the cut edge of the peritoneum of the abdominal wall, and unites the parietal peritoneum to the anterior surface of the uterus. The vertical limb of the quadrilateral on the left side is similarly made by utilizing the long end of the second suture which had been placed at the lower angle of the wound and sewing upward to the upper angle of the wound, three-eighths of an inch from the cut edge of parietal peritoneum; thus completing a quadrilateral area six inches long by three-quarters of an inch wide, which area is now excluded from the general peritoneal cavity. This excluded area is covered by two flaps of parietal peritoneum, each three-eighths of an inch in width, separated in the mid-line by the original peritoneal incision which was made in opening the peritoneal cavity.

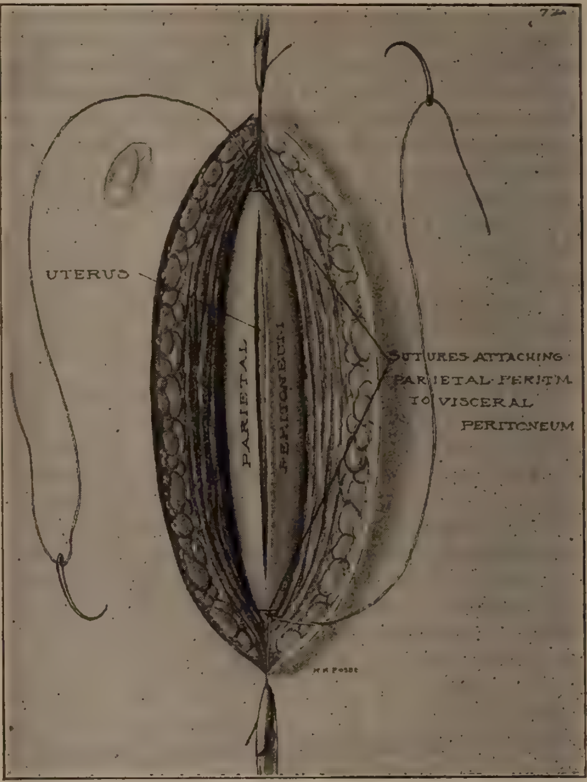

Figure 1. Showing incised parietal peritoneum. Visceral peritoneum on anterior surface of the uterus showing through. Parietal and visceral peritoneii united by anchor suture at upper and lower angles of the wound.

The uterus is opened, the child extracted by the breech, one c.c. of pituitrin is given, and the placenta is removed in the usual manner. The uterine cavity is then packed with iodoform gauze. The uterine musculature is closed with a continuous or interrupted No. 2 chromic gut stitch. A continuous suture of plain catgut is then used to close the peritoneal incision in the uterus. The two flaps of parietal peritoneum

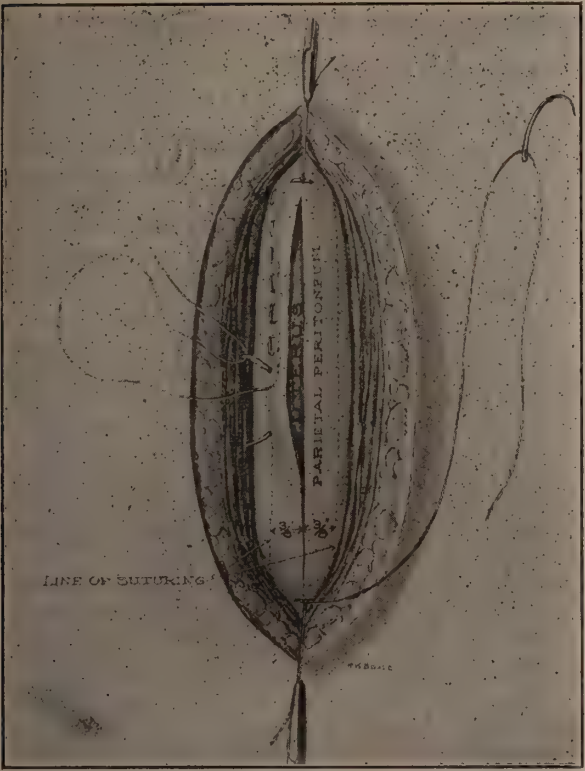

Figure 2. Showing the parietal peritoneum being sutured to the visceral peritoneum on the anterior surface of the uterus, by a continuous, overlapping stitch placed 3-8 of an inch from the cut edge of parietal peritoneum.

which have been described covering the excluded area of the uterine wall are then sutured in the usual manner. The remainder of the abdominal wound is then closed.

Before adopting this technic we operated upon one patient in the following manner: The parietal peritoneum was sewed to the anterior surface of the uterus without opening the peritoneal cavity; but, though the woman made an uneventful recovery, there is a possibility of injuring a loop of intestine which might be present in front of the uterus, and the method was abandoned.

The advantages of this method are many. It is very simple, and requires neither unusual skill nor practice. There is no dissection of the visceral peritoneum from the anterior surface of the uterus, which takes time and gives a raw surface, which often bleeds profusely. The bladder region is not entered, so that there is no danger of injuring it or of having post-operative vesical complications. There is absolutely no initial spill into the peritoneal cavity of uterine contents, nor is there subsequent leakage from the uterus into the peritoneal cavity. Patients may be given a longer test of labor and still be delivered by this method when classical section would be contraindicated. As a result of the longer test of labor, fewer Caesarean sections will be necessary. In spite of the fact that the membranes have been ruptured many hours, and that numerous vaginal examinations and attempts at delivery from below have been made, these patients may still be delivered safely by Caesarean section performed by this method. Craniotomy on the living child need never be done with this operation as its alternative. The post-operative convalescence is remarkably free from shock and abdominal distress, especially tympanites. This is due to the fact that the intestines are not traumatized by handling or the use of abdominal pads; in fact, the intestines are rarely, if ever, seen. At no time during the operation do the hands of the operator, or his assistant, or anything except the threaded needle, enter the peritoneal cavity. The ease and speed with which the uterine and abdominal wounds are closed adds materially to the safety of the patient.

There are no disadvantages of this method. The one objection which may be raised is that we leave the patient with a high fixation of the uterus. In this series, we did not have a patient that was in any way inconvenienced by this fixation. The patients were seen from one to seven years after the operation and there were no com-

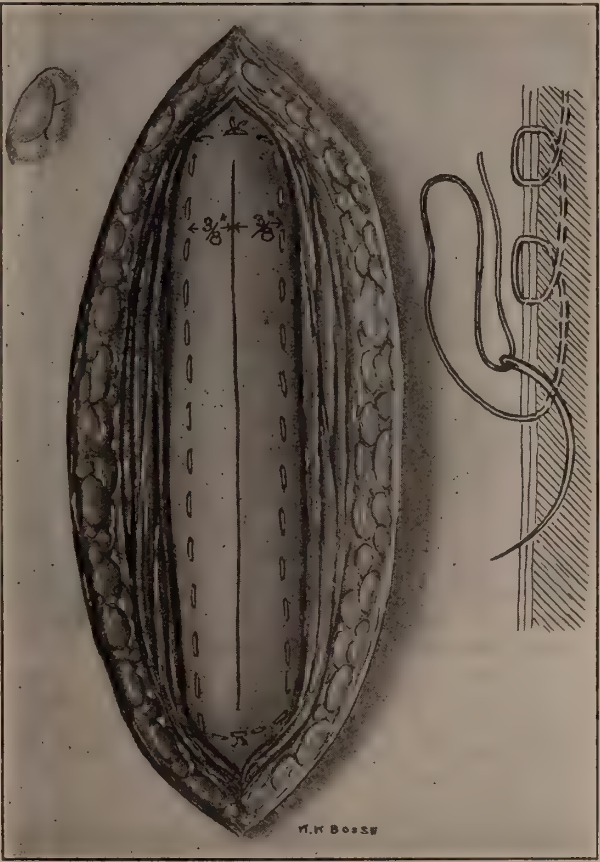

Figure 3. Suture of the parietal peritoneum to the visceral peritoneum on the anterior surface of the uterus completed.

Small diagram. Shows overlapping stitch making suture line water-tight.

plaints. The menstrual function was unaltered and many of the patients became pregnant and carried their babies to term normally. If this fixation leaves the patient symptom free with unimpaired function of the organs involved, one is justified in making in her an anatomical change which makes it possible to do a life saving operation. If subsequently, an elective Caesarean section is done (as will usually be necessary because the most common indication for the operation was contracted pelvis), the fixation may be released with the greatest ease in a very few moments, by cutting through the fixation band. The uterus drops into the abdominal cavity, and the classical operation is then proceeded with. We have recently performed elective Caesarean sections on two patients, previously operated upon by this method, and succeeded easily in removing the fixation band.

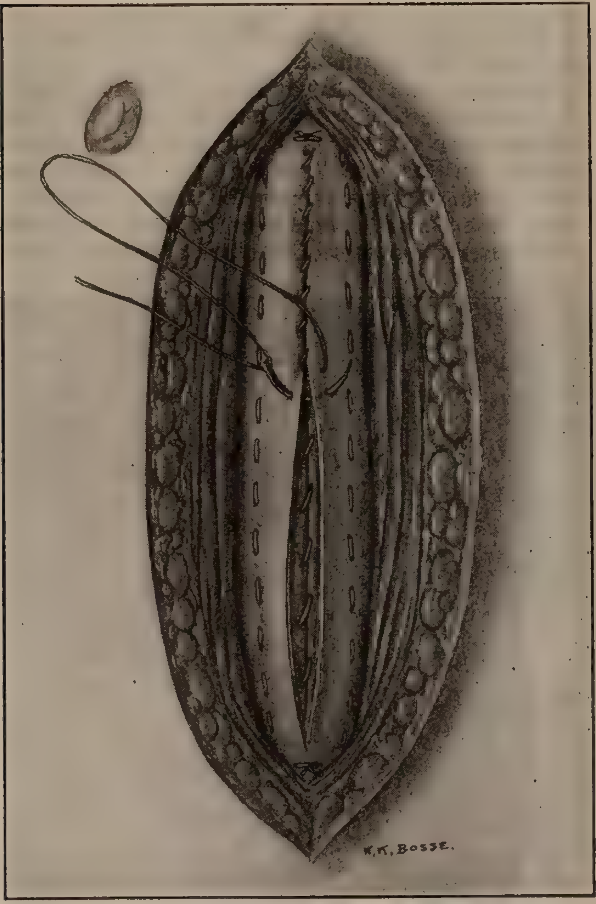

Figure 4. Showing the uterine wound closed and the parietal peritoneal flaps being sutured.

We operated upon thirty patients by this method. In each case a classical Caesarean section was manifestly contra-indicated. To cite a few examples: Patient No. 1 in the series, had a contracted pelvis, 48 hours of labor, attempts at bagging and delivery prior to admission. Patient No. 2 had a contracted pelvis, 30 hours of labor, 3 doses of pituitrin and 3 attempts at forceps delivery, prior to admission. Patient No. 15 had a contracted pelvis, about 28 hours of labor, was in the care of a midwife, and a forceps delivery had been attempted prior to admission. Patient No. 20 had been in labor 3 days, with uterine inertia, numerous vaginal examinations had been made, and the membranes ruptured 2½ days before admission. Patient No. 21 was a Primipara in poor condition with concealed accidental hemorrhage, the cervix admitting one finger, and a Bag had been introduced before admission to the Hospital.

A number of the patients came into the hospital with elevated temperature and pulse rate. During the puerpereum many of these patients had a temperature of from 101 to 103 degrees for a variable number of days, due to post-partum infection. We believe that classic Caesarean section in this series would have given a high maternal mortality. In these thirty cases we did not have a single death from peritonitis. The one death in our series was due to post-partum hemorrhage and occurred in a patient who was in very poor condition at the time of operating.

In conclusion, we believe that this operation has been so successful that it should be the operation of choice in potentially infected cases.

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THE DIAGNOSIS AND TREATMENT OF BRAIN TUMORS*

By WALTER E. DANDY, M.D., BALTIMORE, MD.

ALL lesions become more frequent as our acquaintance with them grows. If we hark back but a very few years, appendicitis was unknown, then very rare, and finally a very common ailment. The same story is true of any number of lesions. The great educator of true perspective is necropsy and operation. Brain tumors are passing through the rare stage because neither necropsy material nor operative inspections have checked mistaken diagnoses. But in a few clinics intensive studies have shown not only that brain tumors are among the most frequent tumors of the body, but during the first six decades, particularly from the second to the fifth decades, tumors are among the most common afflictions of the central nervous system.

The results of the long struggle in the solution of appendicitis should teach us much about the fundamental treatment of brain tumors, and prevent many of the sad chapters in its story when told in later years. Two accomplishments have transformed a prohibitive mortality in the treatment of appendicitis into one which should be practically nil: first and foremost, an early and accurate diagnosis, and second, an early and efficient operative procedure which eradicates the cause.

In the treatment of brain tumors, the same two factors are all-important, and in addition there is the third great factor—localization of the tumor. Although the diagnosis and localization of appendicitis are nearly synonymous, the same is far from true in brain tumors. In fact, the localization of brain tumors has been the most difficult phase of this complex neurological problem.

It is doubtless known to you all that tumors as large as one's fist are still compatible with life and without giving the slightest evidence of their situation. For many years it has been possible to know that a patient was afflicted with a tumor, but we have not been able to tell where it was located. With such inadequate information, it is clear that operative results must be very poor. Without accurate information, I should venture the assertion that in the hands of the very best operators, less than one-third of all explorations for brain tumors would actually disclose the tumor at first operation. In fact, so discouraging have been explorations for tumors of the brain, that, except when the location of the tumor seems clear, the palliative decompressive operation has become more or less routine. Obviously, such treatment is most unsatisfactory. There is only one way to cure a patient with a brain tumor, and that is by a complete extirpation of the growth by operation. Decompressions have been justifiable only because the location of the tumor has been unknown. If the location of the tumor is known, any treatment which delays or is palliative is no more justifiable than delay or palliation in appendicitis.

Although the rate of growth of brain tumors is variable, a fatal outcome is almost inevitable. But we have many warnings of this impending calamity. Tumors cause headache, destroy vision, produce paralyses, convulsions, speech and mental and other disturbances, and most of these changes are progressive. The great hope for patients afflicted with brain tumors lies in the earliest possible diagnosis. To do this, it is incumbent upon us to suspect a tumor when any symptom or sign referable to the central nervous system makes its appearance. Fortunately, it is now possible by the use of cerebral pneumography—i.e., roentgenography of the brain after the injection of air into its ventricles or subarachnoid spaces—to diagnose and also to localize practically all brain tumors which cause pressure, and in the early stage of the tumor's growth. This being possible, the problem of handling brain tumors is greatly simplified.

The treatment of tumors is now reduced to a single simple formula: Complete extirpation when the nature and location of the growth make this possible; and when impossible of removal, then and only then to produce the maximum decompression for palliation. Unfortunately, some brain tumors, by virtue of their infiltrating character, do not permit extirpation. In other instances, removal is precluded because of the invasion of the brain-stem, speech centers, or other vital parts of the brain. There are, however, many nonencapsulated growths in silent areas of the brain which, if detected early, can be completely removed. The so-called silent areas of the brain were formerly the greatest handicaps to cerebral surgery because they prevented diagnosis or localization of the growths owing to the absence of signs or symptoms. Formerly, it was necessary to perform palliative operations until the tumor grew beyond the confines of the silent brain and produced paralyses or other focal destructions of the contiguous brain with recognizable functions. Now these silent areas are the greatest assets for the success of brain surgery; for, the localization now being possible in another way, extirpation of the growth can be done with contiguous silent areas of the brain, when necessary, and still leave the patient without noticeable defects.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 30, 1926.

I have said that practically all brain tumors should now be localized and at once. Brain tumors give rise to two types of signs and symptoms: (1) localizing symptoms and (2) general pressure symptoms. If the former are present, the localization is automatically made. Their consideration need not detain us. But the overwhelming proportion of brain tumors give rise to so-called pressure symptoms, and it is to the consideration of this difficult problem of localization that I wish particularly to call your attention. As you know, the craniovertebral chamber is a closed and fixed space and its contents—blood, cerebrospinal fluid, and brain tissue—are almost totally incompressible. For this reason, a new growth is tolerated only by a compromise with these intracranial contents, and this compromise gives the warning signs; headache, nausea and vomiting, choked disc, etc.

Probably all brain tumors which produce intracranial pressure, produce (as an expression of this compromise) changes in the size, shape or position of the ventricles and subarachnoid spaces of the brain. If the fluid from these spaces is removed and air is substituted in its place, these changes in size, shape and position will be accurately registered in roentgenograms of the head. It is, therefore, clear that if these alterations are known, the location of the cause which produces them (the tumor) can be deduced. I will now show you a series of lantern slides which will explain the localization of brain tumors from every part of the brain. In many instances the localizations have been so precise as to permit transcortical incisions of great depth to find the tumor at operation, and often successfully to remove tumors which otherwise could never be found except at necropsy.

I should not wish to leave you with the impression that it is a simple and harmless procedure. Unfortunately, it is the reverse. It is both complicated and dangerous. The interpretation of the air shadows is difficult and is all dependent on the intimate knowledge of intracranial anatomy and physiology. Its danger is shown by the fact that I have had three deaths in my first 100 injections. However, in over 400 since then, there has been none. This is owing to the fact that I have learned how to eliminate danger. Air is an irritant. When the ventricular channels are blocked, its absorption is prevented; a serosanguinous exudate results from its irritation, and this produces a marked accentuation of pressure symptoms. Many patients are so ill that this additional pressure could not be tolerated. To prevent this complication, the air should be removed as soon as possible after the skiagrams are completed. If the quantity of air injected is large (30 c.c. or more) either the original ventricular fluid or saline solution may be replaced. In safe hands, the procedure is now without great danger. It seems inadvisable, at least at the present time, that a risk so great as the use of air requires, should be assumed except by a competent neurological surgeon.

Lantern slides were then shown as follows:

(1) *Tumors of the frontal lobe.*—The localizations were made by dislocation of both lateral ventricles and the third ventricle away from the tumor (anteroposterior view). Often the homolateral ventricle, and at times also the third ventricle, were obliterated. The third ventricle, when present, takes an oblique instead of a normally upright position (anteroposterior view); ventricular filling defects on the side of the tumor (lateral views).

(2) *Tumors of the temporal and parietal lobes.*—Practically the same pictures as frontal lobe tumors, though with more pronounced filling defects. There may be elevation of the descending horn of the ventricle in temporal lobe tumors. Parietal tumors may disclose the body of the ventricle downward, broaden its diameter and shorten its height, or narrow its diameter and increase its height, depending on the exact position of the tumor.

(3) *Tumors of the occipital lobe.*—The lateral dislocation of the anterior horns of the ventricle (anteroposterior view, occiput down), is less than in frontal, temporal and parietal tumors, and may even be absent. Filling defects of ventricles and alterations in size, position and shape of the ventricles.

(4) *Ventricular tumors.*—Filling defects in ventricles and evidences of hydrocephalus from closure of the ventricles. A small tumor in the body of the lateral ventricle showed a normal ventricle anterior to the tumor and hydrocephalus of the ventricle posterior to it. The sharp anterior and posterior margins of the tumor were shown by the abrupt lines of termination of the air shadow. A tumor of the third ventricle showed a bilaterally symmetrical hydrocephalus, but with no communication between the two lateral ventricles and with absence of the third ventricle.

(5) *Tumors producing symmetrical dilatation of the lateral ventricles with intercommunication.*—This line of tumors included (1) suprapituitary tumors growing upward and occluding the aqueduct of sylvius, (2) pineal tumors, (3) tumors contiguous to the pineal and the third ventricle, (4) tumors in various parts of the posterior cranial fossa (cerebellum, cerebellopontine angle, brain-stem and fourth ventricle). All of these tumors block the iter

or fourth ventricle. In one instance a shadow of a suprapituitary tumor was seen in the air background of the dilated ventricles; its presence could not be detected except in the presence of air. This has been an important finding in many other tumors situated elsewhere. In another case of suprapituitary tumor, the tumor had grown lateralwards and blocked one lateral ventricle and partially obliterated the third ventricle.

A pineal tumor was shown causing dilatation of the ventricles with partial obliteration of the third ventricle, and a large shadow of calcification in the air background.

An endothelioma arising from the leptomeninges near the pineal produced a great hydrocephalus of both lateral ventricles, partial obliteration of the third ventricle, and a great filling defect of the left lateral ventricle.

Various tumors of the posterior cranial fossa produce dilatation of the third and both lateral ventricles. A case of cicatricial closure of the foramen of Magendie was shown (with dilated lateral and third and fourth ventricles). After a new foramen of Magendie had been constructed, the air could be seen in the cisterna magna and the cerebral sulci (indicating that the new foramen was patent several weeks after the operation). The patient has since remained well (now four years). Another case was shown in which a tremendously dilated cisterna interpeduncularis extended upward and produced a great filling defect in the left lateral ventricle. Both lateral ventricles were of enormous size owing to the obstruction in the cisterna.

DISSOCIATIONS—THEIR ROLE IN AMNESIA, MULTIPLE PERSONALITY, OBSESSIONS AND SOMNAMBULISM

By ROBERT KINGMAN, A.M., M.D., F.A.C.P., BROOKLYN, N. Y.

MODERN psychology uses the term dissociation to indicate states of mind common to all of us to some extent and in certain individuals existing to a degree that is accountable for the presence of such interesting and related phenomena as somnambulism, double personality, amnesia and automatic writing. In turning an introspective eye on one's own field of consciousness it appears like a stream of thought progressing upon a uniform plane toward some definite end, very much as the story of a moving picture film unrolls itself reel by reel before our outward vision. The ideas and sensations and feelings that preoccupy us at any given moment do not appear like separate entities moving independently of each other at different rates of speed toward various objectives, but all seem blended together for some common purpose and to be moving along at about the same velocity like objects floating downstream with the current.

The mind, to be sure, may be found occupied with the varied details of a business problem and then a few minutes later with plans for a coming vacation. But the two ideas do not occupy the field of consciousness at the same time and there was some hidden link that led from one to the other and bridged the gap between the two subjects. As thought flowed along, one idea gave place to the other, and because of the hidden thread common to both, no actual break in continuity actually took place. Accepting this appearance for the reality, the older psychology was far from conceiving that the mind could split up into chunks of various sizes, each one independently busied with its own particular interest and entirely oblivious to the activities of its neighbors.

Nevertheless this is just the way in which the mind frequently does act. A piano player, for instance, may occupy himself with a piece of music that he has never seen before, playing with appropriate and varying expression, and be busily engaged in his mind at the same time with the problem as to whether or not he should vote for the referendum on prohibition. The two lines of thought involved, one a political issue and the other a musical interpretation, are almost entirely independent of each other, but going on at the same moment. And just as with the cobbler who plies his trade while thinking of his sick wife, the field of consciousness is more or less divided into two parts and some degree of dissociation of consciousness must exist. The dissociation is partial and temporary, and as either or both activities may be abandoned at will, they are under the control of the subject. It is where this control no longer remains that the marked degrees of dissociation are found.

Psychology uses the term suggestibility to indicate a condition of the brain in which the individual adopts whatever occurs to his mind without exercising a normal amount of judgment and before investigation of the facts. Suggestible persons are the victims of every whim and fancy that may cross their minds; and they take up every fad and every idea that comes to their notice through the press or the conversation of their friends. Their instability and pressure for immediate action leaves no time for reflection as to whether the advice may be good or the end desirable. No sooner heard than done is their motto.

There are two conditions in which suggestibility exists to a marked degree: one is hysteria and the other is hypnosis. A subject in the hypnotic state will make love to a chair if told that it is a girl, will collect mosquitoes if told that they are butterflies, or jump out the window if told that the room is on fire. There is no interval between hearing the suggestion and putting into operation the action that would be appropriate if it were true. Hysterical people are similarly prone to act upon suggestions coming from without, and are also particularly liable to be the subjects of auto-suggestion; that is, the wildest and most illogical ideas that may pass through their minds are accepted as true without question or reflection and acted upon in the same manner as suggestions coming from another person.

Automatic writing, while occasionally found in normal people, occurs in its most perfectly developed form among hysterics. It is not in the least necessary to invoke the aid of spirits to produce a specimen. If the attention of an hysterical patient be diverted by conversation, and a pencil placed between the fingers of his right hand, a third person, by whispering questions in his ear may receive written answers to these whispered questions, while the patient is continuing his conversation on an entirely different subject. Not only will the patient be altogether unconscious of what his hand is doing, but he is often entirely ignorant of the events described in writing. This experiment is used to resuscitate buried memories, for the explanation of his lack of knowledge when questioned on matters that he automatically answers in writing is to be found in the fact that such matters have to do with episodes in his past life which have been completely suppressed and forgotten. In fact this loss of memory for a definite section of the past, often of long duration and for events of the utmost importance, is a characteristic symptom of hysteria.

The explanation is simple, for the apparently extraordinary manifestation of automatic writing is merely an exaggerated form of the dissociation present in the piano player's mind when he thinks of two things at once. A more complete dissociation has taken place in which one activity of the mind remains under control of the subject, while the other does not. The field of consciousness has been divided into two distinct parts, one engaged in conversation and the other with the matters about which the patient is writing. Each portion carries on complicated mental processes, not only independently of each other but unaware of each other's existence. Here are two sets of memories with no connecting link, and two smaller minds instead of one large one, engaged in two different occupations.

We generally associate somnambulism with the sleep-walking of small boys who wander about the house or climb out of windows in a sort of trance after they have been put to bed at night. But grown-ups suffer from somnambulisms and in the daytime, for the condition includes those spells in which a person suddenly drops his ordinary train of life and commences to re-enact or continue some previous experience. One of the best known somnambulisms is that recorded by Dr. Janet under the case designation of "Irene." This girl had nursed her mother through a long illness ending in death under circumstances that were extremely painful. The shock to her mind was profound. She soon, however, ceased to show any emotion when her mother was mentioned and was even reproached by her relatives for her unfeeling attitude. At about the time that she appeared to show no further regret for her mother she became subject to seizures which came on suddenly in the midst of talking or working. She would drop whatever she was doing and re-enact every detail of the death scene with the fidelity of an accomplished actress. During this drama she was entirely unconscious of everything going on about her, heard nothing that was said to her and saw nothing else but the imaginary scene in which she was taking part. The somnambulism would then end as suddenly as it had begun, and she would return to her former occupation at the point or the word where it had been interrupted, unaware of any interval. In the intervening normal state she not only knew nothing of her somnambulistic performance, but had also forgotten everything connected with her mother's illness and tragic end. Her conscious memory showed a gap from the exact moment when the somnambulism began to the exact moment when it ceased. A lapse of this sort is known as amnesia.

The dissociation of consciousness in the case of Irene was not into two separate simultaneously present portions as occurs in automatic writing, but into two portions which succeeded and alternated with each other. The difference may be visualized by saying that in automatic writing the split is longitudinal, which allows two parallel activities to be carried on separately at the same time, like two streams flowing side by side, each impervious to the other. In somnambulism, the splitting is horizontal; one phase of consciousness is cut clear across in its full width. An alternate phase thereupon supervenes and takes full charge until the first phase is as suddenly resumed where it was dropped, and with no recollection of there having been an interlude. The longitudinal splitting is like two moving picture stories being thrown on a screen side by side and moving along together; while the horizontal split presents two pictures alternately, first a reel from one and then a reel from the other.

Perhaps the most interesting bit of knowledge that has been recently established in connection with these and other dissociations is that they are not haphazard occurrences, but a far-sighted and purposeful attempt on the part of nature to save the mental balance of the individual in whom they appear. The mind is built so that certain portions can be split off into thought-tight compartments for the same reason that a ship is constructed on the water-tight compartment plan. If the ship is in danger from flooding, the doors of one or more compartments are closed either automatically or from the bridge and the water which would otherwise overwhelm and sink the boat is confined within certain limits. In exactly the same way, ideas to which are attached such painful feelings or such dangerous thoughts as might wreck the reason of the individual if allowed full and unrestrained freedom, are split off from the main body of the mind and enclosed in thought-tight compartments where they can do less harm than if left at large.

It was not because she was hard-hearted that Irene ceased to remember her mother, but because her grief was so painful that it would have wrecked her reason had nature not tied the whole subject up in a dissociated portion of her mind away from her conscious reach. And even then, so great was the struggle of this imprisoned portion to come again to the surface, that a compromise was found necessary and it was allowed to reappear from time to time in a sort of pantomime on the stipulation that no conscious memory should ever be aroused. Similarly, in cases of automatic writing, the matter thus elicited has had to do, at some time and in some way, with an unpleasant experience of some sort. The compromise entered into in these cases is not that the matter shall never be allowed to come into consciousness, but that it shall arrive there only by the secret route and in the covert manner of automatic writing, which will allow the individual the privilege of denying all previous knowledge of its existence.

Nature, ever on the alert against emotions and thoughts which would actually endanger the sanity of the individual, establishes a sort of censorship in regard to what shall and shall not be allowed to remain in consciousness. She has at her command a variety of protective devices, the choice of which in any particular case is determined by the seriousness of the situation. The phenomena of double personality and the persistent ideas known as obsessions are to be numbered among the safety-valves by way of which nature substitutes a lesser evil for a greater.

On January 17th, 1887, the Rev. Ansel Bourne, drew a sum of money from a bank in Providence and then entered a horse-car. He was not seen nor heard of again for two months. On the morning of March 14th, Mr. A. J. Brown awoke in a fright in his lodgings at Norristown, Pa., and called in the people of the house to tell him who he was. Brown had rented a small shop six weeks previously, stocked it with stationery, confectionery and small articles, and carried on his trade without seeming in any way unnatural or eccentric. But on the morning of the 14th he declared that his name was Ansel Bourne, that he knew nothing of shopkeeping, and that the last thing he remembered was drawing money from a bank in Providence and entering a horse-car in that city. He believed that this had happened yesterday. This instance of double personality was originally described by Henry James and is a good example of a somnambulism in which the dissociated system is so extensive and the amnesia so complete that it is termed double personality. Even with the dissociated system in entire possession of the field of consciousness, the patient's behavior is normal and adapts itself thoroughly to his environment. But the condition actually differs from somnambulism only in the completeness and elaborateness of its development. The normal stream of consciousness has been suddenly broken across and replaced by a series of altogether different mental processes.

Unpleasant newspaper notoriety has been given to instances of persons who have alleged amnesia and double personality as an excuse for disappearing from home to escape some disagreeable or criminal situation of their own creation. Incidents of this sort have happened so opportunely as to cause the average man to doubt whether such a condition could arise without conscious feigning on the part of the fortunate victim. Nevertheless, authentic instances of double personality are not rare. It is to be noted that the Rev. Ansel Bourne had not committed any crime, nor was he in money difficulties. But he had been overworked and over worried. The crux of the matter usually lies just there. Nature helps those who cannot help themselves. She does not offer a ready means of escape to anyone who has robbed a bank or committed a murder. It is only when the mental and moral strain of some problem has long occupied the mind of an over-conscientious person and threatens to unbalance the reason that she steps in to solve the dilemma by offering temporary oblivion in the shape of one of her forms of dissociation. It is the victim of the round-peg-in-the-square-hole situation, the man who has long striven to measure up to the demands of a business or domestic drama for which he has neither the mental endowment nor the physical stamina, on whom she takes pity. Many a man could be a successful and contented shop-keeper like A. J. Brown, who would live a life of continual misery if called upon to take up the pastoral duties of Ansel Bourne. And many a man could live in peace and comfort with Mrs. Jones, who might be driven to distraction and amnesia by Mrs. Smith.

If the dissociation of double personality occasionally offers a refuge from overwhelming difficulties, that of obsessions often operates as a relief from small torments. An obsession is an idea which constantly recurs to the mind in spite of all efforts to banish it, or an impulsion which causes one against their will to perform some irrelevant and inappropriate action. Touching every lamp post, or counting the steps, are common examples; and hours may be spent before the mirror struggling with the idea that the face is growing longer, or twenty physicians may be consulted because of an unfounded idea of tuberculosis. Minor varieties of obsessions are the melody that runs continually in one's head and the constant repetition of a name or a verse which refuses to leave us in peace. Such ideas and actions are indeed tormenting in themselves, but it is well to remember that they are not nearly as distressing as the ideas and actions for which they are acting as substitutes.

When obsessions are traced to their foundations, each one is found to be a symbolic or euphemistic method of avoiding an action or a thought with which our subconscious mind is busied, and which it is quite ashamed to allow to appear in consciousness. So that the touching of the lamp-post is a makeshift way of satisfying a longing to touch something that would be opposed to our moral principles; and the repetition of harmless melodies and verses prevents thoughts on topics which we have been taught to taboo. The repetition of the obsessional act or thought varies in intensity and becomes more incessant as the outlaw idea approaches the surface of consciousness and threatens to break forth. Like many another evil in life, in the case of obsessions, it is often better to bear the ills we have than to fly to others in the subconscious mind for which they stand as symbols.

We have referred previously to the thought-tight compartments into which the mind may be divided. This mechanism, too, serves a conservative purpose in everyday life, and its use is a common and perhaps inevitable occurrence in the psychological life of every human being. The reason for this is that our political and religious beliefs and the traditions of our childhood are notoriously inaccessible to argument and we stick to them in spite of evidence that refutes them every day. Such a contradictory state of affairs can only be explained by assuming the existence of a certain amount of dissociation which splits these systems of belief off from the rest of the mind and leaves them high and dry like desert islands in the midst of the stream of consciousness. The solvent action of the tide of unbiased and freely moving flood of thought that surrounds these islands has no effect on their rock-ribbed shores. That paradoxical definition of the word faith as "belief in what we know is not true" finds here its apotheosis. It needs no faith to believe in things of which our senses give us proof or which the mind can determine by a logical process of reasoning. But we hold to religious and political ideas which our grown-up intelligence knows are not true, simply because it is safer for our peace of mind and because we dare not risk the upheaval that would ensue should we attempt to dig about the roots that grew so strong and deep in childhood and adolescence.

THE TREATMENT OF HEMORRHAGE IN PEPTIC ULCER*

By WALTER A. BASTEDO, M.D., NEW YORK, N. Y.

BLEEDING from a peptic ulcer may be:

1. The slight ooze which appears merely as occult blood in the stools. This usually ceases in a few days under the accepted methods for the medical management of ulcer.

2. The larger hemorrhage which shows grossly in the stool but is not enough to produce obvious symptoms of hemorrhage. This is usually also satisfactorily treated by ordinary ulcer management, though an arbitrary period of three days without food or water by mouth is usually considered advisable, as well as the administration of a coagulant.

3. The profuse hemorrhage which is accompanied by weakness, fainting, air hunger and anemia.

4. The continuous or frequently recurrent small hemorrhage that gradually brings on a marked secondary anemia.

Whether the ulcer is duodenal or gastric does not alter the medical treatment for hemorrhage. The therapeutic desiderata are: 1. to stop the bleeding; 2. to overcome the effects of loss of blood; and 3. to forestall and prevent recurrence of the hemorrhage.

In hemorrhage compensation mechanisms are set to work promptly. To stop the bleeding the ruptured arteriole retracts and contracts and the blood clots at its mouth. To maintain the blood volume there is absorption of tissue fluid, of lymph and of water from the alimentary tract. To maintain the blood pressure the vasoconstrictor center causes active constriction of arterioles generally in the body, or at least in the splanchnic area. As the cerebral arteries and the cardiac coronary arteries are not controlled by the vasoconstrictor center, these do not contract and will continue to furnish blood to the brain and heart even though the general arterial system is in constriction. This is a necessary provision for the maintenance of life. Wiggers has shown that after hemorrhage the coronary flow equals or exceeds the normal flow even though the systemic arterial pressure is below normal. There is, therefore, no reason for the administration of heart stimulants, and there is contraindication to any drug, such as nitroglycerin, to overcome the general peripheral constriction.

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The local situation. Retraction and contraction of the bleeding vessel, together with clotting being the local desiderata, it is to be remembered that we are dealing not with normal tissue, but with ulcer tissue. In a very recent ulcer the connective tissue formation is little, so that the bleeding vessel may retract and clotting take place readily. Hence, in the acute ulcer, hemorrhage, if not massive, is prone to shut itself off quickly. In the indurated ulcer on the other hand, bleeding may persist or recur with greater ease. Clotting takes several minutes, and because of the pressure of the flowing blood does not begin at the mouth of the bleeding vessel but at some distance from it, reaching back by accretion till it stops the mouth of the vessel. Therefore the more the tissues interfere with the free flow of blood, the more readily does the clot form and the bleeding stop. Hence for clotting, the favorable condition is an empty contracted viscus with the mucous membrane in deep folds. But peristaltic activity should be avoided, for not only does it interfere with the normal accretion of the clot, but it may loosen a clot already formed. Anything that will induce sudden access of blood pressure may do likewise. In other words, to favor and maintain effective clot formation we need a quiet contracted stomach, quiet heart, quiet respiration and avoidance of vomiting.

Lavage. If the stomach is not contracted, lavage is indicated. As said by Arpad Gerster: "A bleeding hollow organ distended by coagulated blood will not cease bleeding until that clot is evacuated." Kaufmann reports a case with stomach distended with blood and gas, and pulse of 170 relieved by lavage. Lavage may stop a continuous bleeding by removing a partial and ineffective clot and permitting the formation of an effective one. The chief object, however, is to empty the stomach and so permit the viscus to contract. The use of very cold or very hot water to stop the bleeding is probably of no advantage in such a large area, and may have the disadvantage of arousing peristalsis. If desired, the lavage may be followed by the introduction through a tube, of remedies to act locally. C. R. Jones introduces an ounce or two of gelatin of syrupy consistency containing ten minims of solution of adrenalin. Many have used a coagulant such as thromboplastin. This introduction of remedies is sub judice because of its problematic usefulness and because anything introduced into the stomach may induce peristalsis.

Lavage is not necessary if the stomach is already contracted, and if the bleeding has stopped may do harm by loosening the clot. It is contraindicated if there is evidence of portal congestion. For who can tell that the bleeding is surely from an ulcer and not from the varicose veins of the lower esophagus which in cirrhosis of the liver or portal thrombosis are so often the site of hemorrhage.

Morphine. To lessen the patient's excitability, to lower the accompanying acceleration of the heart and respiration, and to decrease peristalsis and the tendency to vomiting, there is no better remedy than a hypodermic of morphine. But morphine has the striking disadvantage that while it abolishes peristalsis it also abolishes tone, so that in large doses it may produce an atonic dilatation, a state just the opposite of that desired. To counteract this tendency I would accompany the morphine with a maximum dose of strychnine, which, while it does not initiate peristaltic movements, has the power to increase tone. Strychnine does not appreciably counteract the desired effects of morphine on the brain and the respiratory and vagus centers. Atropine is not desirable as it does not counteract the relaxing effect of morphine, and it annuls the vagus control of the heart.

Coagulants. Though it has been shown that hemorrhage may itself result in increased blood coagulability, this occurs only to a moderate degree, and then only from very rapid or massive hemorrhages. Therefore it is advisable to use coagulants for their systemic effect. It is to be borne in mind that in the usual ulcer case the blood has normal coagulability, therefore the use of coagulants systemically is solely for the purpose of hastening the coagulation time beyond the normal.

When one of these coagulants is applied locally it acts to favor clot formation at the site of injury; but if it is administered to the body it reduces the coagulation time of the whole blood in the body. In experimental work on animals the blood has been brought by some of these agents administered intravenously from a coagulation time of 8 or 9 minutes to one of 1 or 2 minutes. The effect is less from the subcutaneous or intramuscular administration, but is still distinct, and is seen even from mouth doses. If in sufficient quantity a coagulant will produce intravascular clotting, a consummation devoutly not to be wished for; but this occurs only with intravenous doses and the danger is not present when the drugs are used by mouth or hypodermatically.

The coagulant substances available are: cephalin, thromboplastin, coagulen, blood serum and its precipitated derivative coagulose, homostatic serum, whole blood and sodium citrate.

Cephalin and thromboplastin are liquid lipoid preparations made from brain tissue. Coagulen is a powdery preparation of the blood platelets. They all contain the physiological substance known as cephalin or thrombokinase. From their intravenous administration the action begins in about half an hour, reaches its maximum in about 1½ to 2 hours, and lasts about 4 to 6 hours. From subcutaneous doses the action may appear almost as quickly, but as a rule its appearance may be retarded for several hours or even twelve hours or more. Therefore coagulants are scarcely emergency remedies.

Blood serum, as it is the liquid squeezed out from a clot, is lacking all the elements removed in the clot; nevertheless it has the property of increasing the coagulability of the blood. It loses this property quickly, the loss during the first hour being quite rapid, and after that progressively slower. The loss may be retarded by keeping it in an ice-chest or, as Mills discovered, by adding to the serum enough solid sodium chloride to make a 6 per cent solution. Old stock horse serum administered intravenously in large quantities, for example in pneumonia, has no marked effect on the coagulability of the blood. Fresh serum, however, of the human being, rabbit, sheep and horse may be employed, the rabbit's serum being the most potent. According to Clowes and Busch human serum is in nowise superior in clotting power to that of the animals mentioned, yet, being homologous, it may be employed in much larger quantity.

It is well to note that old serum may be reactivated by the addition of weak alkalies or weak acids, and may become especially active on the addition of cephalin or thromboplastin. Indeed Mills found that old horse serum if introduced intravenously within two or three minutes of reactivation by fresh physiological cephalin, would produce intravascular clotting.

The great disadvantage in the use of serums in the large quantities necessary is the serum sickness which so frequently follows a week or two later. But they may be administered intravenously without the risk of intravascular clotting. In their intravenous use of course, the usual tests should be made to avoid anaphylactic shock. The dose usually employed is 20 c.c. subcutaneously, repeated every 12 hours; but taken all in all, serum is not of great value.

Diphtheria antitoxin, though prepared from horse serum, has practically no effect on coagulability. It is refined to a very high protein content, and this protein consists almost entirely of pseudoglobulins which have little value as coagulants.

Hemostatic serum, a proprietary preparation, is claimed to be a very concentrated serum, which contains cephalin or thrombokinase, pro-thrombin and anti-thrombin. The claim is made that it retains its potency unusually long. It is standardized by the requirement that 2 c.c. administered intravenously to a 12 kilo dog, shortens the coagulation time to at least one-third the normal. As canine and human clotting correspond in every way, this would represent an intravenous dose for a 70 kilo human of 12 c.c. and would seem to permit the intravenous use in great emergency of 2 c.c. Its subcutaneous or intramuscular dose in the ordinary case is 2 c.c. and in the severe case 5 c.c. It should be diluted with normal saline and repeated every 4 to 6 hours. The small dose necessary avoids the subsequent serum sickness, but if used intravenously, the usual anaphylaxis precautions should be taken. It is a preparation that will bear further scientific investigation.

Whole blood in massive amounts as in transfusion has double value, for it restores the blood volume and also improves its clotting power. Subcutaneously whole blood has the disadvantage that it may form merely a hematoma which is absorbed very slowly

Sodium citrate in 30 per cent solution in dose of 15 c.c. in each buttock produces a prompt decrease in the coagulation time, lasting one to three hours with gradual return to normal. This is in striking contrast with its power to check coagulability when added to blood in vitro.

Calcium. In internal hemorrhages in ordinary cases (not jaundiced) *calcium* salts have no value, and an increase in the calcium ions in the blood beyond the physiological point may result in decreased coagulability (Lapenta).

Measures to restore the blood volume. For this there is nothing that compares with transfusion, therefore in profuse hemorrhage the patient should at once be grouped so that transfusion may be performed without delay if it is deemed necessary. The fear that the addition of a quantity of blood to the circulation may induce renewed hemorrhage need not be entertained. In spite of Ottenberg and Libman's warning against transfusion in first hemorrhages, I should say with Bernheim, "When in doubt, transfuse." But I should not adopt Bernheim's rule to wait for transfusion till the systolic pressure drops to 70, nor would I be guided wholly by the hemoglobin. For owing to the action of the vasoconstrictors, to the natural elasticity of the larger arteries and to the usual acceleration of the heart's rate, the blood-pressure may be maintained for a time though the total volume of blood is progressively falling. Likewise the hemoglobin drops only as the blood becomes diluted by the tissue fluids, lymph, etc., and the patient may need blood even if that which he has does not show a very low hemoglobin. Therefore I should transfuse anyway if the hemorrhage seems to be continuous or recurs in large volume, or if the patient shows symptoms of blood loss.

In great emergency where transfusion is not available, salt solution, preferably of Ringer's or Locke's formula, may be introduced by rectum, by hypodermoclysis or intravenously. Salines do not change the coagulability of the blood, and they may maintain the blood volume for a sufficient length of time to save the patient's life. Hypertonic glucose solutions have also been suggested.

Measures to increase the blood's viscosity, such as the addition of gelatin or acacia to the saline, give very little promise of help and have disadvantages.

Mechanical Measures. The patient should, of course, be in bed and kept warm. In case of exsanguination one can bandage the limbs and raise the foot of the bed high, or even bandage the abdomen and place weights upon it as suggested by Meltzer, for it is necessary to maintain the cerebral and coronary circulations at all costs or the patient will die.

The use of an ice-bag over the stomach is customary, but physiological experiments give no justification for its employment.

Surgery. It is the consensus of opinion that while surgery may be called for in recurrent hemorrhages, immediate surgery is contraindicated in the presence of a profuse hemorrhage. It has been estimated by Moynihan that not over 3 per cent of profusely bleeding gastric or duodenal ulcers could be treated successfully by laparotomy. As a matter of fact, either spontaneously or because of, or in spite of medical measures employed, nearly all hemorrhages cease and are not fatal. So that by the time we have decided that the hemorrhage is not going to cease the patient is beyond the point of safety for an operation. Moreover it is a risky operation, and in the presence of so much blood it is often impossible to locate the bleeding spot.

Lindberg, of Faber's clinic in Copenhagen, tabulated 68 cases so severe as to raise the question of an emergency operation. It was decided in all the cases to give medical treatment. Only five died, and the autopsies showed that not one of the five could have been helped by surgery. These statistics, together with unfavorable statistics from other clinics where operation had been performed, convinced Lindberg that surgical measures are never indicated in acute hemorrhage from the stomach or adjacent bowel. The experience of most surgeons would tally with that of Lund who remarked: "I have learned that it is poor practice, when the patient is depleted by hemorrhage, to open the stomach and try to grasp the artery in the bottom of an ulcer."

In the cases with continued or repeated slight bleeding sufficient to produce a decided anemia, there is a reduction of the fibrinogen and prothrombin content of the plasma and excess production of antithrombin. Consequently the failure of the bleeding to cease may be due to the formation of a loose and inefficient clot. In such a case the treatment is transfusion followed at a convenient period by surgery.

When the measures mentioned below are unavailing and bleeding persists, as shown by repeated vomiting of fresh blood or profuse bloody diarrhea, it is unjustifiable to stand around and watch the patient slowly die. In such case I would advocate surgery following transfusion. I recall one such case saved by operation, in which the surgeon found a vein eroded on one side and held open because it could not retract.

SUMMARY

The Treatment in Severe Hemorrhage is:

1. Have the patient very quiet, lying down with head low, with plenty of fresh air and with body kept warm.

2. If there is severe exsanguination, bandage legs and arms, raise the foot of the bed and bandage and put weights on the abdomen.

3. Avoid unnecessary manipulation of the abdomen.

4. Give a hypodermic of morphine sulphate, 0.015 gram (gr. ¼) with strychnine sulphate 0.002 to 0.003 gram (gr. 1/30 to 1/20).

5. Administer hypodermically every six to twelve hours 20 c.c. of fresh rabbit or horse serum, 2 c.c. of hemostatic serum or 10 c.c. of thromboplastin.

6. Prepare early for transfusion and as soon as there are indications for it transfuse.

7. If there is exsanguination to the danger point and transfusion cannot be done give intravenously Locke's or Ringer's solution, normal saline or 20 per cent glucose; and give normal saline by rectum or by hypodermoclysis.

8. If the stomach remains distended and the bleeding seems to persist, lavage with tepid water and follow this by passing in through the tube a solution of thromboplastin, kephalin or coagulen, or gelatin with epinephrin. In portal congestion cases or if apparently the bleeding has ceased, avoid lavage.

When these measures are unavailing, and dangerous bleeding persists, as shown by repeated vomiting of fresh blood or profuse bloody diarrhea, resort to surgery.

In cases with continued or repeated slow bleeding sufficient to produce a decided anemia but without immediate danger to life, the failure of medical measures calls for surgery.

The Subsequent Treatment is: 1. Avoid putting anything at all in the stomach for three days, giving saline by rectum every six hours to allay thirst.

2. Give a soapsuds enema once a day.

3. At the end of three days give milk of magnesia sufficient to clean out all remaining blood from the bowels, for blood in the bowel putrefies quickly.

4. Then begin the regular medical treatment of ulcer.

5. Have patient use the bed-pan for several days after the hemorrhage, and then a commode by the bed.

NEWER METHODS IN BRONCHOSCOPY AND ESOPHAGOSCOPY, WITH SPECIAL REFERENCE TO THE GENERAL PRACTITIONER

By MORRIS E. NEWMAN, M.D., BUFFALO, N. Y.

DURING the last few years the science of medicine has observed marked changes in the field of bronchoscopy and esophagoscopy, so that now the principles, originally perfected for the removal of foreign bodies in the air and food passages, have greatly increased their scope of usefulness. Many important contributions have been added in the diagnosis and treatment of diseases of these tracts, so that today the foreign body angle constitutes but a small part of the endoscopist's work. Blind methods of diagnosis and treatment are being replaced by the more scientific methods of direct inspection.

It is not the purpose of this paper to describe the technic of introducing the instruments or the details of such operations, but to call attention to the various diagnostic uses and their appliance, as would interest the physician doing general practice.

For briefness, I shall divide this paper into sections, viz.: (1) Foreign bodies in the air and food tracts, (2) Lung suppurations, (3) Diagnosis of disease.

Foreign Bodies

These are more common than are generally recognized. Many children have been treated for various ailments when a foreign body was the seat of the trouble. With a definite history of playing with some foreign object, cough and choking, there is little difficulty in making a diagnosis. However, so often a history is lacking and the symptoms so vague that many of these cases are overlooked. The symptoms and physical signs vary with the position, size, shape and character of the foreign body and often vary from hour to hour. Objects of vegetable origin produce more severe symptoms, especially in children. Some time ago I reported six peanut cases in the bronchi of children, three of these were being treated over a period of time for pneumonia. The danger present in this class of case is the oil contained therein, which produces by its irritation a drowned lung. Early removal ordinarily saves these children. Although X-ray examinations are invaluable in opaque foreign bodies, it is possible by careful study of the changes in the lung and surrounding structures to localize non-opaque, foreign objects. Cases of long duration are often confused with pulmonary tuberculosis and bronchiectasis. They must be differentiated from neoplasms, enlarged mediastinal glands and aneurysm.

Every foreign body must be removed. Spontaneous expulsion occurs in only a few cases, probably less than three per cent. Inverting the patient has its dangers, because of the possibility of forcing the object into the glottis. No one should attempt to remove a foreign body without proper instruments and training. The old fashioned way of pushing the finger down the throat should be discouraged. The high points in summarizing this group then are: History, sudden cough and shortness of breath, wheeze, physical signs and X-ray.

In referring to foreign bodies in the food tract a different problem is found, as here we have an outlet for the object to pass through. Those objects whose contour or size prevent passing through, such as pins, large coins or bones, should be removed under local anesthesia. Perforations of the esophagus are not rare and are generally fatal. One of the more common esophageal conditions, both the family physician and specialist are called upon to treat, is stricture. The crude methods some chemical manufacturers use to mark their lye cans have been the cause of a large number of cases of lye burns of the alimentary tract. These cases are serious and their final outcome depends on the degree of the burn and the period of time given to treatments to overcome the stenosis.

It is evident from the above that the foreign body problem is to be considered as a distinct entity in practice.

Lung Suppurations

Lung Abscess—These may follow surgical operations, trauma, pneumonia or secondary to infections elsewhere and carried by the blood stream. In these cases bronchoscopy is recognized as a useful aid in the diagnosis and localization of foci and a valuable help in its treatment. Cases, where there is a communication to the bronchial lumen, are tubed and the contents then aspirated, and followed by medication directly into the cavity. In those cases in which masses of granulation tissues or constriction are present to impede drainage, surgical means are instituted through the tube.

Among the more recent advances in these types of case is the injection of a solution called lipiodol through the bronchoscope into the bronchial tree. This is a solution containing forty per cent of iodine. This suspended solution travels to all parts of the tree and its opaque shadows, as shown by the X-ray plates and screen, are a great aid in diagnosis and an indicator for further surgical procedures. The iodine therein contained is thought to have therapeutic value.

Bronchiectasis—There has been considerable research work carried on in this bronchial ailment throughout the country. Many patients suffering from this dilatation of the bronchial walls have been diagnosed anything from tuberculosis, lung abscess, lues, fistulas, etc. The symptoms are often vague and the history generally dates back over a long period when, following a cold in the chest, a resultant condition of cough and drainage of a large amount of foul smelling secretion is noted. This usually comes up about once a day, at nearly the same hour, followed by relief.

The method followed is to cocainize the throat, insert the bronchoscope and aspirate the secretions, followed either by irrigation or the injection of 20 per cent Gomenol. The patients leave the table and go home, many improving after the first treatment. This procedure is usually repeated at weekly intervals. The odor generally disappears immediately, the cough decreases and the amount of secretion lessens. In cases that the internists desire vaccine treatments, a specimen is taken directly from the cavity for culture. The use of lipiodol is a valuable diagnostic and therapeutic aid.

Diagnosis of Disease

In cases of new growths direct vision tells us of the size and the condition of the surrounding structures and at the same time a section can be removed for examination. Strictures can be dilated or incised, diverticulae discovered and in cases of spasm a dilating tube can be inserted and relief obtained. To the surgeon performing gastrostomies, retrograde esophagoscopy is most valuable. Lately Moore of Philadelphia is diagnosing and treating bronchial asthma and pulmonary oedema with the bronchoscope.

Case Reports

To illustrate a few of the above mentioned conditions, the following case histories are reported:

1. Girl, age 11, cough lasting nearly a year, expectoration and loss of weight. Prepared for Saranac Lake with a diagnosis of tuberculosis. During a bad coughing spell late at night the regular family physician could not be reached and a neighborhood recent graduate was called. An X-ray was requested and the following day the writer removed a red octangular glass bead. Child now well.

2. Baby, 13 months old, suddenly started to cry and vomit. Family doctor ordered sedatives, but obtained no relief. A second and third were called with the same result. A fourth ordered an X-ray and within two hours of this we removed an open safety pin from the larynx.

3 Boy, age five, treated for pneumonia for over a week. Peanut removed right bronchus on eighth day.

4. Boy, age 17, had pneumonia six months previous, followed by cough, loss of weight, expectoration of a couple of cups of foul smelling pus daily. After five aspirations and injections, his weight increased, odor disappeared and secretions nil.

5. Boy, age 10, was operated on two years previous for removal of tonsils and adenoids under ether anesthesia. Developed what was considered bronchopneumonia and on the failure of the chest to clear up, a diagnosis of tuberculosis was made and the child was sent to an institution for the chest condition. At the yearly change of hospital internes, the coming interne ordered another series of chest plates. A suspicious shadow called for a bronchoscopy which was performed under nitrous oxide anesthesia. A large lung abscess was drained. This was repeated three times and the fourth operation revealed a mass of granulated tissue filling the left bronchus, which was removed and beyond this mass a piece of rubber tubing from the original tonsil operation was removed. Child gained immediately.

6. Baby, age 12 months, coughing for 11 weeks. Physician told mother child could not have a foreign body because it did not cough out any blood. Child's condition grew progressively worse and a diagnosis of pneumonia was made. A consultation called for an X-ray. Plate showed an open safety pin lodged in right bronchus with the lung pneumonic. The child by this time was in poor condition. A low tracheotomy was performed but attempts to remove the pin were to no avail, as it was so firmly wedged in the mass of new formed connective tissue. Patient died from cardiac failure.

7. Man, age 80, difficulty in swallowing and much cough with secretion. Diagnosis chronic bronchitis, gastritis. Without anesthesia a scope was passed and a large ulcerating carcinoma was found.

Conclusion

The foregoing paper is offered more to the physicians in the field of general medicine rather than to present the same features to a group of men specializing in endoscopy, as the burden of early recognition, which is primarily the keynote of a successful bronchoscopic result, hangs on the shoulders of the general practitioner, as he is generally the first called upon to make a diagnosis and after arriving at his conclusions, he is looked upon as the judge as to what course is to be followed. Cooperation between the endoscopist and the private physician is the ideal to be realized.

OBSERVATIONS REGARDING INTRACRANIAL HEMORRHAGE IN THE NEWBORN*

By WILLIAM SHARPE, M.D., NEW YORK CITY

UNTIL recent years the literature of intracranial hemorrhage in the newborn has been concerned with the extreme cases, either as post mortem studies of extensive intracranial hemorrhage due to laceration of the large sinuses, tentorium, falx, etc., or as clinical observations of the signs of a probable large intracranial lesion or hemorrhage, (general convulsive seizures, profound stupor, etc.), and the description of methods to increase the coagulability of the blood and in this manner lessen the cerebral damage and its possible resulting chronic condition of cerebral spastic paralysis with mental retardation. Almost 100 years ago, Denis,[1] Billard,[2] and Cruveilhier,[3] in the period from 1826 to 1835, published several papers intimating and suggesting the causal relationship of intracranial hemorrhage at birth and the later development of cerebral spastic paralysis. In 1843, Little[4] of London stated in his first monograph on the subject of "Deformities of the Human Frame" that a difficult labor might be an etiologic factor, but that a lack of development of cerebral tissues and meningitic inflammatory processes were the usual causes. Only nineteen years later (1862), in his second monograph[5] on this subject, Little stated that, as a result of further study, especially of a large series of postmortem examinations, he was of the opinion that almost 75% of the cases of cerebral spastic paralysis were due to an intracranial hemorrhage at the time of birth. In 1885, Sarah McNutt confirmed this opinion by careful pathologic studies. More recently, Beneke[6] in 1910, Pott[7] in 1911, Mayer[8] in 1915, Holland[9] in 1920, and within the last four years Schafer,[10] Schwartz,[11] Saenger,[12] Capon,[13] Barnett[14] and others have contributed valuable postmortem observations, and yet the literature of the clinical observations has been most meagre. In this country Green,[15] Brady,[16] Sidbury,[17] Warwick,[18] Rodda,[19], Strauchauer,[20] Ehrenfest,[21] Conkey,[22] Huenekens,[23] and Monroe and Eustis,[24] have all added to the knowledge of the subject during the last decade. In 1924 Schwartz,[25] of Berlin stated that "the pathology of the first month of life is completely dominated by the birth injuries of the brain"; Fisher[26] of Basel wrote in 1924 that his postmortem observations at the Institute had convinced him that "the 10 per cent of deaths during the first month are chiefly due to cerebral birth injuries"; and Huenekens,[27] in an article in 1919, stated that "the recognition of cerebral hemorrhage of the newborn is a most neglected phase in their care and yet it is a most important one."

During the last twelve years (up to January 1925), 59 acute cases of extensive intracranial hemorrhage in the newborn[28] (the accuracy of the diagnosis being confirmed by lumbar puncture, cranial operation and necropsy) have been studied in my clinic—the most common signs being profound stupor, refusal to nurse and muscular twitchings; and during the same period of 12 years, 671 chronic cases in children with varying degrees of spastic paralysis and mental retardations have been examined and in whom, in selected cases having a marked increase of the intracranial pressure, the diagnosis of a former intracranial hemorrhage, most probably occurring at the time of birth, was confirmed by operative and postmortem findings; the histories of the labor and the first week after birth of these 671 chronic cases of cerebral spastic paralysis, with or without marked mental retardation, with the subsequent operative and post mortem findings of a supracortical hemorrhagic organization-residue producing a partial blockage of the excretion of the cerebrospinal fluid and thus the increased intracranial pressure of chronic cerebral edema, have been most instructive; 81 per cent were first children; 72 per cent, were boys; 95 per cent were full term babies; in 90 per cent, the labor was prolonged and difficult, forceps having been applied in 76 per cent of them, although in a large percentage of these cases, more as a last resort than as an early indication; in 17 per cent the presentation was a breech. Pituitary extract was recorded as having been used in 8 per cent of these cases. During the first week after birth, 64 per cent of these children were considered more drowsy and stuporous than is normal, 23 per cent refused to nurse and 78 per cent did not evince the normal demand for food; 39 per cent had muscular twitchings of varying degree, particularly of the orbital muscles and of either leg or hand; in 17 per cent general convulsive seizures occurred one or more times during the first two weeks. An icteroid appearance was noted in 18 per cent. Within two weeks after birth, 61 per cent of these children were socalled "well" and "normal" (if anything serious had been suspected at all), and in 82 per cent of them, at one month after birth, the child was "to all appearances" normal in every way. With the exception of 21 per cent, it was only in the later months of the first year that it was observed that the child was not begining to hold up its head and to sit up when it normally should do so, and in 79 per cent, the beginning of spasticity of the legs or arms was not demonstrable before the seventh month. The later history of not walking and talking within the normal age limits varied by months and even years, a small percentage never having walked or talked. The Wassermann test of the cerebrospinal fluid was positive in only 0.5 per cent of all the cases (i.e. one in 200 cases).

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Having in mind these 59 extreme acute cases and also these 671 chronic cases of cerebral birth hemorrhage, the possible frequency of acute intracranial hemorrhage in the newborn was considered to a degree that a lumbar puncture within from twelve to twenty-four hours after birth was advised in a test series of 500 consecutive newborn babies as a routine procedure and irrespective of the type of labor. It is true that babies having large intracranial hemorrhage frequently did disclose signs of its presence by varying degrees of stupor, respiratory difficulties, refusal to nurse and muscular twitchings even to convulsive seizures, and at necropsy the diagnosis was confirmed (it being considered fortunate that the baby did not survive). In the milder degrees of intracranial hemorrhage of an amount that could be entirely absorbed together with the cerebrospinal fluid by the natural means of absorption alone, then the acute signs, if any, of its presence were of such temporary duration, of several days at most, that the child made a permanent excellent recovery, and the birth history was quickly forgotten, if indeed anything abnormal at the time of birth had been observed. However, in those cases in which the amount of intracranial hemorrhage was not of sufficient degree to cause death and yet of larger quantity than could be entirely absorbed by the natural means of absorption (through the walls of the supracortical veins chiefly (80 per cent), sinuses, pacchionian bodies, etc.), the babies only apparently recovered from the acute condition within a period of from two to four weeks and were even considered normal until the seventh month and usually within the first year, when it was noticed that the child was not developing physically at the normal rate as to holding up its head and sitting up, and later was retarded in beginning to walk and to talk. Usually within the latter part of the first year, an increasing spasticity of either one or both legs appeared as part of a hemiplegic or a diplegic condition. It is in the latter chronic conditions of intracranial hemorrhage in the newborn that the etiologic factor of hemorrhage has been frequently overlooked owing to the paucity and even lack of the clinical signs at the time of the acute condition at birth—the cells of the cerebral cortex being only partially developed at the time of birth and thus even large cerebral lesions not being disclosed clinically. Then the later development of a chronic physical and mental impairment in a child apparently normal up to the latter part of the first year has been a most puzzling one, the factors of heredity, alcoholism, lues, etc., being most frequently considered. These observations regarding the character of the cerebrospinal fluid were made in the hope that the acute condition of intracranial hemorrhage in the newborn will be more frequently recognized, so that its appropriate treatment—possible repeated lumbar punctures of spinal drainage together with the methods of increasing the blood coagulability—may be instituted early, while the blood is in fluid form and not after a period of days, when the hemorrhage that may not be absorbed has coagulated. Thus the hope that the permanent presence of a supra-cortical organization-residue—the future obstruction to free absorption of the cerebrospinal fluid and the underlying cause of varying degrees of increased intracranial pressure of cerebral edema in these chronic cases of cerebral spastic paralysis, can be prevented.

A brief summary of the series of 500 consecutive newborn babies on whom a lumbar puncture was performed within from twelve to twenty-four hours after birth, by my associates, Doctors A. S. Maclaire[29] and G. E. Espejo[30] and through the courtesy of Doctors Child, Dorman and Ward at the City Hospital, Welfare Island, is as follows: In forty-five babies there was disclosed bloody and blood-tinged cerebrospinal fluid; that is, in 9 per cent of the entire series. One other baby dying before a lumbar puncture was performed—the puncture being made fifteen minutes after death—revealed at necropsy an extensive intracranial hemorrhage with bloody spinal fluid; this case however has not been included as having bloody cerebrospinal fluid. In as many as fifty babies, that is, 10 per cent of the entire series, no lumbar puncture was performed—in thirty-six a dry tap was recorded, and in fourteen the test was not performed, as seven babies were in severe shock and seven premature babies were in poor condition.

In making the test of lumbar puncture in this series, if bloody, blood-tinged or yellow and straw-colored cerebrospinal fluid was disclosed, then another immediate confirmatory puncture was made one interspace higher—merely to prove or disprove the presence of blood in the first test. In the bloody cases, another test was made within a period of twenty-four hours, and cerebrospinal fluid was drained of an amount not to lower the pressure below the normal 4 to 6mm. of mercury; these daily tests were repeated until the fluid became clear and under normal pressure. As many as seven punctures of drainage were necessary in several cases, and yet the average number was slightly over three.

There were three deaths in this series of newborn babies on whom a lumbar puncture revealed blood in the cerebrospinal fluid—two in the first hundred and one in the fourth hundred. Postmortem examinations disclosed a large ventricular hemorrhage in the first, extensive supracortical hemorrhage and cerebral edema in the second, and large supracortical, basal, subtentorial and spinal hemorrhage in the third baby. Their common signs were stupor and refusal to nurse; convulsive twitches were present in only the third baby.

The clinical signs suggestive of an intracranial lesion were most meagre and usually apparently lacking. Only seventy-three babies exhibited clinical signs, and their order of frequency was the following: muscular twitches of the feet and toes in eleven, of whom only four had bloody fluid; prolonged cyanosis in nine, and only in two was blood disclosed in the fluid; poor nursing in seven, of whom two had blood in the fluid; four were unusually drowsy and two of these had blood in the fluid; the presence of rigidity in two cases was very significant, in that both babies had bloody fluid; respiratory difficulties in mild degree, such as slightly irregular and labored breathing in fourteen babies, of whom only two had bloody fluid, and other signs, such as frothing at the mouth in one baby having yellow fluid, a supranuclear facial palsy in one having bloody fluid, and epistaxis in two of whom one had bloody fluid. That is, in seventy-three cases having clinical signs suggestive of a possible intracranial lesion, only twenty-five had blood in the cerebrospinal fluid and eight were not recorded. The spinal pressure as registered by the mercurial manometer in these seventy-three cases having clinical signs was increased in thirty, normal in twenty-eight and diminished in six. The anterior fontanel was flush in twenty-four, bulging in fifteen and depressed in twenty-five. The blood clotting time was normal in thirty-five, prolonged in six and decreased in ten. The mother's blood Wassermann test was positive in six. From the foregoing observations, the possible signs of an acute intracranial hemorrhage of mild degree at the time of birth are inconstant and apparently in many cases entirely lacking.

In the forty-five babies having blood of varying degree in the cerebrospinal fluid, thirty-three were males and twenty-two were first children; only four were premature babies. The labor was normal left occipito-anterior and right occipito-anterior in twenty-four; prolonged in seven; precipitate in three; low forceps in three, one of which followed a prolonged labor; medium forceps in four; breech extraction in two; version with breech extraction in one and a face presentation in one. The anterior fontanel was flush in twenty; tense and bulging in eleven, and depressed in fourteen. The cerebrospinal fluid was bloody in twenty-two; blood tinged in nine, and yellow in fourteen. The blood clotting time was within normal limits for each one of the babies having blood in the cerebrospinal fluid, varying from three minutes in one to ten minutes in another baby—the average being five and one-half minutes. The intradural pressure averaged 10 plus mm.—the lowest being one at 2mm., one at 3mm. and seven at 4mm., and the highest being one at 26mm., one at 18mm., two at 16mm., one at 15mm and three at 14mm.

Seventeen babies became jaundiced, in only two of whom was the cerebrospinal fluid bloody and under 8mm. and 14mm. of pressure, respectively; the blood clotting time was four and one-half minutes in one, and five and one-half minutes in the other; five and three lumbar punctures of spinal drainage were necessary to obtain clear cerebrospinal fluid.

The Wassermann test was positive in both mother and child (4 plus) in only one case in which there was free blood in the cerebrospinal fluid; it was 4 plus in two mothers but negative in their babies, and 1 plus in two mothers but negative in their babies, and one plus in one baby but negative in the mother.

As noted above, the blood clotting time has been within normal limits for each baby having free blood in the cerebrospinal fluid, and it has been prolonged in only six cases, and yet these six babies had clear cerebrospinal fluid. The fact that in this series of cases the blood clotting time was taken within forty-eight hours after birth—and it has been observed that even in the condition of hemorrhagic disease in the newborn the blood clotting time may be within normal limits until the third day after birth, when it becomes lengthened—may account for the low incidence of a prolonged clotting time in this series. Besides, the bleeding time may be lengthened and yet the clotting time be within normal limits—the former condition being the more important and serious factor in the case of intracranial hemorrhage.

Impressions

1. Intracranial hemorrhage of varying degree in the newborn occurs rather frequently, in 9 per cent of this series.

2. Its acute signs are often meagre and may be apparently entirely absent, the more common signs being from drowsiness to stupor, from difficulty to refusal to nurse and from muscular twitches to general convulsive seizures.

3. First born, full term males having difficult prolonged labors are more liable to this complication, forceps being used as a last resort rather than their early application; medium forceps and breech extractions.

4. Hemorrhagic disease of the newborn is not a common etiologic factor at least in this series of cases, in which puncture was done and tests were made within from twenty-four to forty-eight hours after birth.

5. Lumbar puncture as an early diagnostic method when the hemorrhage is still in fluid form, and as a therapeutic means of spinal and cranial drainage, is a simple and safe procedure in the absence of severe shock.

6. The early recognition and appropriate treatment of the acute condition of intracranial hemorrhage in the newborn may thus lessen that large

chronic group of physically impaired and mentally retarded children.

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COLLE'S FRACTURE*

By F. F. McGAULEY, M.D., F.A.C.S., SCHENECTADY, N. Y.

TODAY it is amusing to review the literature on Colle's Fracture and to note how different surgeons apologize for dealing with such a commonplace and simple subject. Yet 75-80% of Colle's fractures should carry an apology for the results obtained, according to the opinion of the late John B. Murphy. At the present time, I believe the results are much better than Murphy found, but they are still far from the ideal.

The *Edinburgh Medical and Surgical Journal,* 1814, Volume I, page 182, contains an article "On the Fracture of the Carpal Extremity of the Radius," by A. Colles, M.D. This is a purely objective description and treatment of the condition, and contains 1,528 words. This article is a masterpiece and is worth reading to note how much can be seen without the X-ray.

As a result of automobile accidents many unusual fractures of the radius contiguous to the wrist should change the title of such fractures to a Colles-Ford, Auto-Colles, or some similar epithet if we do not call them lower radius fractures. Some surgeons make a special classification such as simple Colles, Colles resulting from auto cranking, Colles fractures extending into joint, impacted Colles, etc. However, we have made no such classifications, but recognize one injury, that is, a broken radius, and treat it one way with an occasional modification. It would seem that most surgeons make a hard task of an easy one and get into trouble, which is characteristic of the teachings in some medical schools. As a rule most young doctors know several names and classifications of broken wrists, but are unable to set one properly because they cannot classify the injury with the proper method of reduction.

Undoubtedly a high morbidity results from the average treatment alloted to broken wrists by the general practitioner. There is no reason why he should not reduce a fractured radius as well as the best trained surgeon. In many cases the practitioner is surrounded by surgeons and a first-class hospital; consequently he turns over his fractured wrists to surgeons. But he should not be obliged to turn away his Colle's any more than he should call in obstetricians to take care of his obstetrical practice.

I am bringing this subject to your attention because I believe we have something interesting from a diagnostic, treatment and disability standpoint.

In reviewing the work for the past five years in the offices of Drs. McMullen, Lenz and myself, we have treated 264 broken radii either at the office or the Ellis Hospital. Most of the cases were treated at the office, as it is an office procedure.

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* Read before the Fourth District Branch of the Medical Society of the State of New York at Plattsburg, October 9, 1926.

From a diagnostic standpoint it is occasionally impossible without the aid of an X-ray to make a positive diagnosis, but in most cases one can carefully examine the wrist and may make a fairly accurate diagnosis. First, there is a history of an injury, either from cranking an auto or one has had a fall with the outstretched hand bearing the weight of the body. The injury may have happened several days previously, but the disability is usually becoming more marked because the fracture was not reduced. Secondly, there is usually some swelling of the hand above the styloid processes of the radius and ulna, with obliteration of ulna prominence. There may or may not be any marked deformity due to a posterior dislocation of the lower fragment. Thirdly, one of the most important signs is tenderness which is usually more marked directly over the fracture. The patient is usually able to move the fingers, contrary to the lay opinion. Fourth, and undoubtedly the most important that is made in the examination, is the differences in the level of the styloid processes of the radius and ulna. When one places the index finger of each hand just at the tips of the styloid processes of the radius and ulna, if there is a fracture one will note the radius is on a level with the ulna or perhaps the radius is a little higher (proximal to the elbow) than the ulna, which is just the reverse of a normal wrist. If there is an impaction without dislocation this will be very marked and such cases are the ones which are usually overlooked.

As to the X-ray in making a diagnosis, there is often no difficulty in making a diagnosis without it. The X-ray is mainly used to determine just how much manipulation is necessary to reduce the fracture.

As to the time of reduction, we feel that early reduction of a fractured wrist from a morbidity standpoint is as important as the early treatment of a strungulated hernia from a mortality standpoint. Early reduction means early reocvery—delayed reduction means a prolonged and inexcusable disability. As shown in our case records, the short disability in a great many cases, we believe, was due to immediate reduction.

As to the treatment—the first stage of ether anaesthesia or nitrus oxid gas is used. As soon as the patient is anaesthetized, the surgeon places his foot on a chair to use his knee as a support. The broken wrist is taken over the surgeon's knee, both thumbs are placed over the back of the radius above and below the line of fracture. Pressure is then exerted by the thumbs in order to break up the fracture and to unlock the fragments. The lower fragment is then brought forward in flexion and the hand is hyperflexed toward the ulna side. The styloids are then checked up to make sure that the styloid of the radius is distal (near the hand) to the styloid of the ulna. The surgeon's fingers are run up and down the dorsum of the hand and wrist to make sure the lower fragment has been pushed forward.

In carrying out this maneuver one should be careful not to pull or twist the wrist any more than is absolutely necessary. This is the usual procedure with most fractures of the radius.

However, if the X-ray shows that the radius has been fractured into the joint and the fragments are dislodged, the wrist is partly circumducted with the ulna as a fixed point, that is, given a half turn in both directions in order to allow the fragments to drop back in their respective positions. This is followed by hyperflexion toward the ulna side.

As to the splints, we use a dorsal molded plaster splint padded with sheet wadding or gauze, extending from metacarpophalangeal joint up to about two-thirds the distance of the forearm. After holding the plaster in place for a few minutes after it hardens, the bandage is applied (not too tightly). It is imperative that the plaster splint be much wider than the width of the arm at the widest point.

After reduction an X-ray is always taken to make sure the fragments have been properly reduced, and in case the reduction is not successful the patient is again anaesthetized and the maneuver repeated. We have done this four or five times in bad fractures and occasionally have had to use the fluorscope in an obstinate case. (This, however, is very rare.)

An occasional reverse Colles (which happens about once in two hundred cases) should be put up in just the reverse position in a cock up splint, rather than hyperflexed.

As to the after care, the patient is seen within twenty-four hours and the cast is removed. The hand is lightly massaged to restore the circulation. After a few minutes the splint is replaced and another bandage applied. The next day the cast is removed and more massage is given. The cast is then cut down so as to cover only the back of the wrist (a distance of about four inches) and the patient is instructed to use his fingers as much as possible. The patient is seen daily and massage and electrical treatment is started immediately. The splint is usually taken off at the end of a week or ten days, but the patient wears a small bandage to remind him that his wrist has been broken.

Electrical treatment and massage is given daily and the patient is usually discharged at the end of three or four weeks.

As to the X-ray role in the diagnosis and treatments of fracture of the wrist, I feel sure it is of the greatest importance. If the roentgenologist is too charitable he will get one into all kinds of difficulty. It is very imperative to have a proper interpretation of the X-ray, particularly as to whether the fracture is properly reduced. There are a few important X-ray points.

First: In the antero-posterior view, does the radius and ulna make an arc parallel with the proximal row of carpal bones?

Secondly: Is the radio-ulnar articulation satisfactory?

Thirdly: Is the styloid of the radius distal to the styloid of the ulna?

In the lateral view first note that the deformity has been reduced so that there is no displacement or rotation backward of the lower fragment—that the articular surface of the radius does not tilt backward, but faces anteriorly.

1. In reviewing the last fifty cases of uncomplicated Colles, the average time from date of fracture to discharge was twenty-eight days.

2. One conclusive observation we have made is that little manipulation at reduction usually shortens the convalescence. In the cases that have to be treated or reduced a second or third time there is lengthy disability.

3. Also the morbidity is less in cases where the accident happens out of duty, rather than the cases that occur in line of duty. For example, a musician who fractures his arm cranking a pleasure car has a shorter disability than the truckman who sustains a similar injury cranking his delivery truck. Women (particularly the old-maid type) have a prolonged disability, while the old family man forgets his aches and pains and returns to his work. Musicians, such as pianists or violinists, as a rule, have the shortest disability of any class.

4. We have never seen a recurrence of a fracture nor a rotation of lower fragment after the fragment had been properly reduced, in spite of the short time that the splints are applied.

I will show a few slides to bring out some interesting points.

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EVALUATION OF THE ICTERUS INDEX TEST IN GASTRO-ENTEROLOGY*

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As far back as 1913, van den Bergh[1] and his coworkers have described a quantitative method for the determination of bilirubin in the blood serum, making use of the diazo reaction of Ehrlich as the basis of the test. The latter depending upon the development of an azo dye, when an acid solution of a diazonium salt is added to an alcoholic solution of bilirubin. They found that bilirubin in a dilution of 0.7 mg. per liter gives a positive reaction to this test.

Meulengracht[2], in 1920, described a colorimetric method for determining relative quantities of bilirubin in the blood serum, using a dilute solution of Potassium Bichromate as a standard. The latter being prepared in a dilution that matches the color of the average normal serum. Since then greater interest has been stimulated in the use and clinical application of the test, modifications of which have been evolved by Gram[3], and later by Bernhard and Maue[4], the quantity of bilirubin present being expressed in terms of units. The number of units a given quantity of blood contains, indicates the so-called "Icterus Index."

The technic employed in determining the icterus index is quite simple. One cubic centimeter of the patient's serum is diluted with nine cubic centimeters of normal saline, and this is matched in a colorimeter, with a standard, which is a solution of Potassium Bichromate in a 1-10,000 dilution. The reading of the standard divided by the reading of the unknown, multiplied by 10, the dilution of the serum, gives the icterus index in terms of units. Certain rules must be observed in order to obtain good results. The blood must be collected in a dry vessel, with a dry needle, and kept in a cool place preferably in the ice box, for several hours, so as to hasten clotting and prevent hemolysis, since the test can not be performed on hemolized blood.

A. R. Bernheim[5], in the early part of 1924, gave a very comprehensive description of the icterus index test, having performed the same on a series of 485 cases, including various diseases. According to her findings the normal icterus index is between 4-6 units, above six units is considered abnormal, the individual being in a state of hyperbilirubinemia. Between 6-15 units it is presumed that the patient is in a state of latent icterus, as soon as the bilirubin reaches 15 units, clinical jaundice usually becomes apparent. Barrow et al[6], in a subsequent communication, have fully corroborated Bernheim's findings as to what constitutes a normal icterus index, and the various diseases in which the latter is increased. Of the gastro-intestinal diseases, infection of the biliary tract, such as chronic cholecystitis, cholangitis, infective type of cholelithiasis, and hepatitis, whether secondary to gall-bladder and duct infection or primary, the result of various causes, head the list. Duodenal ulcer cases have also given high icterus index readings, probably resulting from direct liver infection, from the ulcerated area in the duodenum, or a cholangitis resulting from an associated duodenitis.

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*Paper read before the New York Polyclinic Medical Society, Feb. 1, 1926.

One frequently encountered entity in gastro-enterology, namely intestinal toxemia, displays almost invariably a high icterus index, a condition which has hitherto not been mentioned in any of the recent work done on the icterus index. It is this important fact that I want to emphasize in connection with intestinal toxemia, from observations which I have made on 64 cases. These patients, suffering from a toxemia show a marked retention of bilirubin in the blood stream, which may be due to the fact that the hepatic cells are overburdened in their attempt to dteoxify the system, and are unable to filter the bilirubin in normal quantities, or perhaps toxic products from the colon, reaching the liver cells by means of the portal circulation, render them less permeable to the excretion of bilirubin. The same mechanism in all probabilities is responsible for an increased icterus index in cases of biliary tract infection.

A. Bassler[7], several years ago, has called attention to cases of intestinal toxemia of the saccharobutyric type, in which cirrhotic changes in the liver could definitely be demonstrated clinically. He attributed these liver changes to the action of various volatile acids which are produced in the colon, and are carried to the liver by the portal stream, exerting their deleterious effect upon the hepatic cells. The high icterus index values obtained in those cases seem to prove the correctness of his contention.

In cases of so called "gastric neurosis," the icterus index is always within normal range. This fact if of great importance, serving as a differential point between cases presenting symptoms purely neurotic or reflex in nature and those manifesting symptoms resulting from actual infection somewhere in the gastro-intestinal tract, such as the biliary tract or colon, the latter cases being very frequently encountered in gastro-enterology. Since we have advocated the icterus index test in our clinic, it seems that fewer cases are diagnosed as gastric neurosis. In my series of cases, including both clinic and private patients, I find that the icterus index is as a rule higher in cases of intestinal toxemia than in unobstructed cases of biliary tract infection. This is quite an important differential point where the diagnosis between the two conditions is more or less obscure. This hyperbilirubinemia is at times so strikingly marked in cases of intestinal toxemia, as to impart a dark amber color to the serum, making it readily discernible that one is dealing with a serum that will give a high icterus index reading. On examining those sera I almost invariably find that the icterus index ranges between 10-14 units, rarely falling below 10 units, whereas cases with unobstructed biliary tract infection display an index generally below 10 units. If a high icterus index (above 10) is encountered in a case where gall-bladder symptoms predominate and one is led to diagnose the condition as some biliary infection, such as cholecystitis, a more thorough search will reveal that one is dealing with two coexisting conditions, namely, a biliary tract infection with a super-imposed intestinal toxemia, thus accounting for the degree of hyperbilirubinemia present.

Various authors have ascribed great prognostic value to the icterus index test. Cases exhibiting a high index resulting from biliary tract infection, have shown a normal index following cholecystectomy. Those reported cases have evidently been suffering from a frank cholecystitis or cholelithiasis, without a complicating intestinal toxemia, which is so usual in those cases. I have two cases in my series that have been cholecystectomized, one about seven years ago, the other six months ago, still they both show a persistence in their high index. These two patients are suffering from a toxemia with probably a certain degree of hepatitis.

We are at present conducting a series of experiments to determine the effect of various forms of therapy on the icterus index in cases where the latter is increased. The favorable outcome of those experiments promises to give us a better idea of the prognostic value of the icterus index test in gastro-enterology. The above described test with its differential value, is not offered as a substitute for the diagnostic procedures generally employed, it was only meant to emphasize its importance as a diagnostic aid in the recognition of the diseases of the alimentary tract.

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EDITORIAL

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For list of officers of County Medical Societies, see this Journal, advertising page xxviii.

THE ANNUAL MEETING

Preparations for the Annual Meeting of the Medical Society of the State of New York, in Niagara Falls, are approaching completion. The Scientific Committee has nearly completed the program of the scientific sessions. Mr. Tufts, the Advertising Manager, has sold nearly all the available booths for commercial exhibitors. The local Committee on Arrangements has made provision for the courteous entertainment of the physicians and their wives. Altogether the meeting promises to be full of interest and value.

Remember the dates—the four days, Monday to Thursday, Many ninth, tenth, eleventh, and twelfth. Come and make the attendance a record one.

THE POEM "SYPHILIS"

The literature of medicine is fascinating to one who delves into the origin of the names of diseases and of current conceptions of their nature. It has often been stated, for example, that the word syphilis comes from the name of a character in an early Italian poem; but how many physicians have read the poem, or know anything about its plot?

The poem is an excellent piece of literature and full of interest to the medical reader. It is entitled "Syphilis, or the French Disease." It was published in 1530 soon after the disease had become a widespread epidemic. It was written in Latin hexameters after the pattern of Virgil's Aeneid. It covers about thirty-five printed pages, and consists of three books. Book one is a description of the disease; book two describes the remedies, especially mercury, and the legends of its discovery; and book three describes guaiac and the legend of the revelation of its virtues in the application of the treatment of a shepherd named Syphilus. The Library of the New York Academy of Medicine contains several copies of Latin text and its translation, of which probably the most readable is one in which the Latin and English are printed on facing pages. This particular copy was published by the Sloane Society, London in 1884, and was presented to the Academy by Dr. R. W. Taylor, whom the older physicians will remember as the Professor of Genito-Urinary diseases in the College of Physicians and Surgeons, New York City.

The author states the object of the poem in its opening lines, after the plan of the Iliad and Aeneid, as follows:

"What various causes brought to us, from what seeds sprang that strange disease, for long drawn ages seen by no human being, which in our time raged through all Europe, part of Asia and the cities of Africa; which forced its way into Latium by means of the disastrous wars carried on by the French, and, indeed took its name from that people; also what cure exists for it, and what help the use of this, and great skill of men in the difficult straits of life furnished us with; the aid lent by the gods and the gifts bestowed by heaven; these I will essay to sing."

What qualifications had the author of the poem to carry out the plan? Jerome (Hieronymus in Latin) Fracastorius was born in 1483 in Padua, Italy, and spent his seventy years of life in the vicinity of that city. He was deemed to be the most learned man of his time and included the practice of medicine among his accomplishments, although his principal occupation was that of a literary scholar. He published the poem "Syphilis" when he was forty-seven years of age. Sixteen years later he published a book on "Contagions," which entitles him to honor, for he was the first writer to put forth the modern idea of contagion by the transfer of infective material, as from "one grape or pear to another." He made the three-fold classification of transfer, (1) by contact; (2) by fomites (a term which he seems to have originated); and (3) by means of pestilential air. He seems to have considered that syphilis belonged to the third class of contagious diseases.

The poem "Syphilis," is a combination of scientific description and poetical fancy; but its remarkable characteristic is that the reader may easily recognize what is fact and what is fancy in the mind of the author. Moreover, the scientific parts are written in a clear and interesting style like that of the best medical writers of England and America.

After the introduction to the poem, Fracastorius calls on the goddess Urania to disclose the land of origin of the disease,—"Whether, borne over the western seas, it reached our hemisphere by that port on the Iberian shore, from which a chosen band issued to dare the waves and the heaving plains of an unknown ocean, and seek out lands seated in another world; for there they say every city suffers perpetually from the ravages of this disease, and that, fostered by a morbid quality of the air, it is always wandering about, and spares but few."

The author answers the question by pointing out epidemiological facts which would do credit to a modern investigator. He cites the widespread prevalence of the disease and the fact that in Spain, which first came in contact with the New World, the disease was no more prevalent than elsewhere in Europe. Yet, for poetic reasons, he says:

"But in the great ocean beneath the setting sun, where a miserable race inhabit the newly found world, it is perpetually springing up, and is familiarly known in every part. There the air and a suitable soil generate it. The air is the father of things. Prone from its yielding nature to become impure in many ways, the self-same element afflicts mortals with serious diseases. And now learn the way it imbibed that contagion, and what changes revolving years can effect."

Then follows four or five pages of description of the effects of Phebus, the sun, on the earth as he travels north and south. Fracaster argues that perhaps the sun may traverse a fresh path, new animals may spring up and giants arise who will expel the gods from Olympus. "These things only weighed, there is no need to marvel if in the course of time the wide air grows rank with new diseases, and if contagions, unknown among the sufferers of our day, arise under some particular star to last for ages,"—and to prove it he says that two hundred years ago, during a conjunction of Mars and Saturn the pneumonic plague "Raged among all the people of the east which, expelling the bloody sputum from the palpitating chest, frequently ended life on the fourth day." His facts were sound, and his fancies were the science of his day, but he adds with a modern spirit, "However, I am well aware that it is difficult to say what Heaven does effect and in what fashion, and to find a certain assured cause for every event. Sometimes the result is delayed for such long periods and at the other times fortune and various accidents intervene and thus mislead us."

Then follows remarks on the kinds of contagion, some of which affect trees only; some the crops; some, animals; and some, men only. "And now," he says, "I will teach thee the course and symptoms of this detestable malady; and would that Apollo might grant that this, my chronicle shall live for ages. Perchance, indeed, some day our posterity may be glad to learn what the signs and appearance of this pestilence were. For after years have rolled away, when it shall once more lie buried in the blackness of night, then again, after long ages, it will rise anew, and once more a coming age will gaze with wonder at it."

Then the disease is described in a way which would do credit to a Holmes or an Osler. "When the disorder had been caught no very manifest signs of it appeared until the moon had four times run his monthly round. In the interval the patients, oppressed with unwonted torpor, dragged but lazily their work, and the bodily functions were executed with difficulty." Then are described the primary lesion and the pains through the body; and the eruption, "the pustule which are much like the top of an acorn"; and finally the ulcers.

The book ends with an imprecation of the gods for adding to the pestilence the horrors of war and slaughter in upper Italy.

Book two is on treatment, and begins with excellent directions regarding rest and exercise, diet, and drinking. Bleeding is advised, and herbs, and especially the orange. If these common remedies fail, then "Hasten to subject thyself to strong treatment and overcome the sore malady in the briefest space of time." He then describes a fumigation of the whole body with a mixture of styrax, cinnabar, red oxide of lead, and antimony. But this, he says, is too strong and may suffocate the patient. He says that there is a wonderful virtue in quick-silver, and then he gives a four-page legend of how its virtues were revealed by the underground gods to a patient named Ilceus. "The fame of this new miracle soon got abroad, and the never failing remedy found acceptance among all ranks. The first trials were made with the fluid silver and hog's lard." Fracastorius prefers it mixed with olive oil, sulphur, and assafoetida, and says, "Do not think it filthy or low to smear and rub the whole of the body with these; by such means the disease is removed from the body and nothing can be filthier than it is. Be firm of purpose. Health will point out to thee certain signs. Thou shalt behold the liquefied dregs of the malady pour, with the foul saliva, in a constant torrent from the mouth, and shalt wonder at the huge stream of disease at thy feet. But now victorious, let it be thy constant care to wash thy body and anoint thy joints with fragrant ointment."

The third book has little medical or scientific interest to modern readers, although it is excellent literature. "It concerns the Guaiac tree, the sacred wood which alone moderates and stills the pains and puts an end to suffering." It tells a fanciful story of Columbus, guided by Nercids safely to shore, where his more youthful followers saw some sacred birds and "Snatched up their fearful hollow-tubed arquebuses laden with heavy balls, and pregnant with destruction. Forthwith they charged these with willow charcoal, sulpuhur, and nitre, and fired the powder with the matchwood kept always burning. All the locked-up fiery force suddenly blazed forth, and the wadding having burst, the balls flew ringing through the air and stretched the birds lifeless on the ground."

One bird, escaping, uttered a threat of pestilence to fall upon the party.

Then is told the meeting of Columbus with the king of the land, and the rites performed by the people with the Guaiac tree, and its application to the treatment of a number of natives who were afflicted with the disease to which the Spaniards were doomed by the sacred bird. The last three pages of the book tell the origin of the rites, how Syphilus, a herdsman, cursed the sun god for a draught and instituted the worship of his kind, and so brought down the pestilence on himself and his people. As Syphilus was about to be sacrificed, the Sun God accepted a heifer in his stead, and sent the Guaiac tree to heal the people.

Almost the only bit of science in the third book is an excellent description of the Guaiac tree and the method of making a decoction from its bark. Syphilus is simply a literary character introduced almost at the close of the poem, Fracastorius named the poem "Syphilis, or the French Disease" in the same way that a modern author might name a history of the revolution "Washington, or the War of Independence."

Fracastorius was the Oliver Wendell Holmes and the Weir Mitchell of four centuries ago, and his scientific poem has a thrilling interest for the modern reader.

PUBLIC HEALTH, PROTECTIVE AND PREVENTIVE

The Governor's hearing on County Health Departments, described on page 314 of this Journal, brings the establishment of such departments acutely to the attention of physicians and county medical societies. Physicians generally recognize that the adoption and practice of public health measures are responsibilities which rest upon the community as well as upon the individual citizens. This argument is set forth in an editorial in the January 15 issue of this Journal entitled "County Health Officers." The present system of a rural health department in each town and village reaches the individual citizen in the face of actual danger. The proposed plan of a county health department would deal with community conditions whether or not an immediate danger is threatened. Local health work is therefore *protective,* while that of the proposed county department is *preventive.*

The county health department will do protective work as well as the preventive form. It will be ready to assist the local villages and towns in the face of emergencies, such as the outbreak of an epidemic; but its distinctive work will be to anticipate trouble and educate the people in prevention before disease is at the door of the community.

There is need of individual health protection and of concerted preventive work; and, too, there is need of both local health officers and of county departments of health. The law permitting the establishment of county units continues the present system of local health officers. The Cattaraugus County Health Department, which is accepted as the standard form of county health unit, still retains the health boards and health officers of its villages and towns, and these local health officers are doing their work in a broader and more efficient way than ever. One must take their work in consideration when estimating the accomplishments of the Cattaraugus County Health Department.

APOLOGIES TO BRONX COUNTY

Two hundred wrappers of the February first issue of this Journal, intended for members in Bronx County, mysteriously disappeared from the printing office, and their loss was not discovered until the Bronx County physicians began to inquire where their Journals were. The officers of the Medical Society have no way of determining who has failed to receive their Journals. If any member will notify the office of the Editor or the Secretary of the Society, the missing Journal will be mailed to him at once.

The editors apologize to the Bronx County for omitting the name of its president, Dr. L. A. Friedman, from his inaugural address printed on page 261 of the March 1 issue of this Journal.

LOOKING BACKWARD

This Journal Twenty Years Ago

The typhoid epidemic in Scranton:—The following editoral from this Journal for March, 1907, illustrates the difficulties under which public health authorities had to contend in the days when public sentiment regarding sanitary standards was in process of formation:

"The State Board of Health in Pennsylvania showed its efficiency by taking hold of the typhoid problem in Scranton before the local authorities had awakened to action in the recent epidemic. The water supply of the city was suspected from the first; but as this was owned by a corporation of influential and much respected citizens, as has been the case in other afflicted towns, there was much local delicacy about indulging in any incriminations. In compliance with the suggestion of some unusually bold spirit, the water company did shut off one reservoir which was notoriously polluted. This did not stop the epidemic because, as was discovered later, there was a frequent flow from one reservoir into the other.

"When the fever had been epidemic for nearly a month, the State Board of Health came upon the scene and discovered the typhoid bacillus in the city water. People were instructed to boil the water and, the source of the infection being positively known, the epidemic began to abate. In the meantime, during the month of December, there were nearly a thousand cases of typhoid, and seventy-five deaths. The money loss in that single month alone would have been sufficient to have constructed an entirely new water system.

"The interesting feature is that there were men in Scranton who knew the danger and warned against it. The negligence of the municipalities in connection with this disease has become notorious. Some day a court will be convinced of the negligence; and then the door will be open for the recovery of damages, and perhaps the municipalities will prize more highly the monetary cost of the negligence than they do the health of their citizens, and we shall witness a general cleaning up of water supplies."

MEDICAL PROGRESS

Gentian Violet and Acriviolet in the Treatment of Pernicious Anemia.—H. Milton Conner reports his experience with 23 cases of pernicious anemia in which the administration of gentian violet was begun between 7 and 12 months prior to the time of writing. In most instances in which the dye was used for a sufficient time there was a gratifying rise in the percentage of hemoglobin and in the number of erythrocytes to approximately twice their average values before treatment. There was also an increase in leucocytes, in some cases very marked, in others less striking. In several cases the treatment had to be discontinued because of untoward reactions to the dye, evidenced by nausea and vomiting, and sometimes by an increase in diarrhea. Gentian violet may be given in solution, capsules, or enteric coated tablets. The solution, although sometimes difficult to take, has seemed to be the most effective. Patients are usually started on from 5 to 15 c.c. of a 1 to 1000 aqueous solution of the dye after each meal, the dose being increased one or more cubic centimeters a day, until 50 c.c. or more are taken three times daily. It has also been given in doses of one or two half-grain enteric coated tablets after each meal. Acriviolet has been given in doses varying from 0.1 to 0.4 grain in enteric coated tablets, although sometimes much larger doses are tolerated. Probably the best results will be obtained when the dose is gradually increased to the limit of tolerance (as indicated by nausea and vomiting). In most cases dilute hydrochloric acid was also given, and in 11 cases transfusion was carried out as well, though the most striking results were obtained in the cases in which no transfusions were given. There is a strong possibility that local application of the stronger solutions of the dyes might be beneficial in the treatment of the glossitis of pernicious anemia. While the series of cases is too small and the time since the inception of the treatment is too short for conclusions to be drawn, the author believes that the occurrence of such marked remissions as he records, and the absence of recurrences in so many cases, may be more than a coincidence. He urges that others test the effect of the dyes in pernicious anemia.—*Medical Journal and Record,* January 5, 1927, cxxv, 1.

Treatment of the Preeclamptic Stage with Ultraviolet Light.—Anton Mayer notes the fact that eclampsia is less apt to occur in the summer months when the sun is high and states that the old time practitioner used to have gravidæ with preeclamptic symptoms take sun baths with the aim of lowering the blood pressure and detoxicating the maternal organism. In 1922 Hochenbichler was the first to use artificial solar light for this purpose and reported that he was able thereby to cause a fall in the blood pressure. The present author took up the subject and has now tested the remedy in 25 cases of preeclampsia. Like his predecessor he was able to bring down the blood pressure notably—from 20 to 40 mm. of mercury. The patients were all primiparæ and all presented the usual evidences of preeclampsia, including high blood pressure, albuminuria, casts, edema of the feet, headache, etc., etc. Of the 25 women all but one took the full treatment and of the 24 not one developed eclampsia; the exceptional patient escaped the treatment and developed convulsions, although they did not end fatally. The expected incidence in this service should have been at least five cases, the annual incidence having been from two to eight.—*Wiener klinische Wochenschrift,* December 23, 1926.

The Halle Operation for Ozena.—R. A. Barlow states that the Halle operation is the most successful measure thus far suggested for the relief of ozena and atrophic rhinitis—conditions in which medicinal applications afford only transient improvement and surgery has been obviously unsuccessful. The Halle operation can be performed under local anesthesia as ordinarily induced for nasal operations. When the patient is prepared all crusts are removed and the mucosa cleansed with dilute oil of lavender. The incision is started in front of the attachment of the middle turbinate, on the lateral wall of the nose, is carried down anterior to the attachment of the middle turbinate, and across the floor of the nose to the septum. The incision is then carried through the periosteum to the bone. The periosteum of the floor of the nose is elevated to the junction of the soft and hard palates, and from the septum to the rise of the lateral wall. An opening is chiseled into the antrum, through the vertical incision in the lateral wall. With the chisel flat and pointed in the lower end of the vertical cut, the instrument is driven gently backward under the elevated periosteum in such a way that the antral wall is cut parallel with the floor. With the chisel inserted in the vertical cut, the lateral nasal wall is forcibly pried out until it hangs vertical in the nasal chamber. The turbinates and the corresponding areas on the septum, which have been previously scarified, are in apposition to the septum. The antrum is wiped out and packed with iodoform gauze to maintain the lateral nasal wall in contact with the nasal septum until adhesions form between these structures. The packing is removed at the end of four or five days, the antrum is cleansed, and the upper angle of the dislocated lateral wall and the agger nasi is packed to keep the turbinates in contact with the septum. The packing is repeated every three days for three to five weeks. The adhesions should not be disturbed for three or four months; then they should be cut. The secret of a good result with this procedure depends upon the after care.—*Boston Medical and Surgical Journal,* December 23, 1926, cxcv, 26.

Transfusion Treatment of Typhoid Fever.—H. Schottmüller of Hamburg, at the close of a paper on this affection, recommends what he terms a new method of treatment. He takes from a recovered typhoid patient who has been free from fever for at least 3 to 4 weeks from a half to three-fourths of a liter of blood. The delay is in part to avoid the danger of a relapse, which has never been known to occur after the third week of convalescence. It is of course understood that as a blood donor the patient should be in excellent physical condition and free from all complications. The convalescent blood thus obtained should be used in special cases in which life is menaced, for example in intestinal hemorrhages, and for very early cases in which there is an opportunity for aborting the disease. The method is to all intent a blood transfusion and the blood should be typed and all other precautions taken which belong to ordinary transfusion. The motive for this treatment is partly the unsatisfactory character of blood-serum treatment and partly the accumulated knowledge of the past twenty years that full blood possesses antibacterial qualities. The author even suggests that if a typhoid convalescent is not obtainable a healthy donor would be substituted. No particular technique of transfusion is mentioned and the author only states that before transfusion he does not hesitate to abstract say 100 c.c. of blood from the patient in order to guard against overburdening the circulation.—*Muenchener medizinische Wochenschrift,* October 15, 1926.

Some New Points in Oral Sepsis.—In connection with the effects of root-canal infections upon the body in such disorders as chronic myocarditis, arteriosclerosis, gastric ulcer, gall-bladder disease, and chronic arthritis, Anthony Bassler (*Medical Journal and Record,* January 5, 1927, cxxv, 1) points out that there are individuals in whom apparently a specificity in this respect develops and is handed down to subsequent generations. He thinks there is little doubt that much of the Mendelian law of heredity is operative in this particular. He adds that the tooth histories of 40 persons whose teeth were in exceptionally good condition for their ages showed that back to the third generation good teeth were the rule, and such departures as were met could be accounted for by lateral incursions in the main family strains. In explaining the effects of these lateral incursions, there is really no reason to believe that the infants are born with infections, but instead that a predisposition to these infections is handed down. Of first importance are the matters of heredity and meddlesome cosmetic but destructive types of dentistry. Other factors are the effect of the endocrine glands upon the development of the teeth—the pituitary in the early days, the thyroid at adolescence, and the parathyroid from the twenty-fifth year on—and changes and variations of the blood calcium. Studies should be made along these lines so that medical men and dentists could formulate some simple clinical truths which would result in the prevention of loss of teeth and infection in teeth. It is not generally known that with apex infections, which are apparently causative of myocarditis, arteriosclerosis, and arthritis, a moderately low blood calcium commonly coexists, having been brought about by the deficiency of the parathyroids. A further point, which physicians as well as dentists seem not to be cognizant of, is that it is rarely true that a tooth which by the x-rays shows a sac-like darkened shadow figures very prominently as an etiological factor in the production of remote organic diseases; it is the nonsac-like types that are the more dangerous, inasmuch as the bacteria then have free access to the lymphatic and general blood stream, and the same holds true for the toxins that are readily absorbed into the body. The hemolytic and nonhemolytic streptococcal forms are decidedly the more common, while the most common of all the apex infections is the *Streptococcus fecalis.* Still another point to which Bassler calls attention is the tendency of amalgam fillings to become leaky; this should not be lost sight of in considering focal infections. Neither should it be forgotten that the mucous glands under the tongue, on the buccal surfaces, and on the gums may harbor infection, and that without showing swelling or setting up pus formation.

Transmission of Scarlet Fever.—U. Friedemann and H. Deicher of the Rudolf-Virchow Hospital, Berlin, take up this subject jointly, Friedemann taking the general and Deicher the experimental end. The authors record the subject as highly important, for Czerny and von Sontagh, they say, are not satisfied that the disease is transmissible by contagion. They sum up the results of the labors of the Dicks and of Dochez in the recognition of the hemolytic streptococcus as the actual cause of the disease and think it remarkable that every one who has thus far gone over the work of the Americans is quite convinced of the truth of their claim. Some, however, assert that an ultramicroscopic virus is concerned, but this view has been brought into harmony with the streptococcus claim by conceiving that a mutation of the latter to the invisible form is possible. The only vulnerable spots in the streptococcus theory are the number and variety of the pathogenic streptococci and the fact that these may undergo mutations with a corresponding confusion in regard to the toxins produced. To throw more light on the subject Deicher carried out a course of experiments with different forms of streptococci and reached the conclusion that the organisms which transmit the disease are found only in the throats of the patients and in the pus of the purulent complications; the skin and urine, he thinks, do not participate at all. The scarlet fever germ may be found also in abundance in the immediate vicinity of the patients. After isolation of scarlet fever patients for a period of six weeks, examination has shown that the organisms are still present in the tonsils in 100 per cent of the cases. The assertion is made that the hemolytic streptococcus can be transformed into a nonvirulent green streptococcus, and this again back to the original pathogenic form. — *Deutsche medizinische Wochenschrift,* December 17, 1926.

Relationship Between Chronic Tonsillitis and Chronic Nephritis.—Dr. Wichert, a rhinolaryngologist, writing in the *Muenchener medizinische Wochenschrift* of November 12, 1926, emphasizes the increasing evidence of the connection of chronic tonsillitis with chronic nephritis and likewise with chronic polyarthritis, appendicitis, endocarditis, etc. It is of course by no means easy to establish this relationship. It is only exceptionally that we find redness of the tonsils and can express pus from the crypts. The existence of an old tonsillitis may be shown in various ways—by the enlarged and cleft condition, the adhesions between the capsule and parenchyma, etc. It may be enough to note that the tonsil is organically inferior and should be extirpated, especially if the patient already shows signs of nephritis. At the Tübingen University there has of late been good teamwork between the rhinolaryngologist and internist so that the author has been able to assemble a series of 27 cases of the combined disease. All the patients suffered from chronic nephritis which did not respond to ordinary treatment, and in all of them the tonsils were ablated and the results then followed up. Work on the series began five or more years ago. In all but three patients contact has been maintained, these three having succumbed to uremia. In eight others the nephritis was uninfluenced, although three of these are still able to work. On the other side of the ledger nine seem to be permanently cured, the urine being normal, while four more are well and fully active although still presenting albumin in the urine.

Lumbosacral Backache.—Charles E. Ayres reviews the physical and roentgenological findings in 22 cases of lumbosacral bachache, which show that the source of disability is undoubtedly in the lumbosacral joint, and his studies would lead to the conclusion that lumbosacral arthritis is much more commonly the cause of back pain than has previously been recognized. The most effective method of dealing with this condition is the production of a bony ankylosis, according to the fusion method of Hibbs. Of the 22 cases in this series 21 were submitted to operation. The fusion operation is not accompanied by shock and is not a dangerous operation when done properly. Ayers also finds that congenital anomalies of the fifth lumbar vertebra are not uncommon. Sacralized lumbar vertebræ are frequently the cause of persistent backache and can be relieved only by ankylosis. The approach necessary for the fusion operation gives an excellent opportunity to examine the bony structure and should be performed in selected cases in which the x-rays do not corroborate the physical findings. In a few of Ayers' cases the spinous processes on one or more vertebræ had grown abnormally large so that in the erect position one of these spinous processes rested directly upon the one below it. Peculiar pain symptoms resulted with radiating pain to the sides. These were treated by removal of a portion of the spinous processes that caused the impingement. Lateral x-ray examination of the lumbosacral region is essential in arriving at a diagnosis of low back pain.—*Boston Medical and Surgical Journal,* January 6, 1927, cxcvi, 1.

Recovery in a Case of Tuberculous Meningitis.—O. Wiese, a pediatrist who read of a cured case of this affection in a previous issue of the same periodical, relates a similar experience which happened in 1921 and which he had forborne to publish because it referred to a single patient with a disease called a hundred per cent fatal. The patient was a ten-year-old girl with multiple bone-joint tuberculosis who after a year of surgical management suddenly developed the typical picture of meningitis with tubercle bacilli in the cerebrospinal fluid and urine. The treatment, instituted on the fifth day of the disease, consisted in withdrawing 60 c.c. of spinal fluid and reinjecting 3 c.c. of the same into the buttock while 1 c.c. old tuberculin, 1 to 1,000, was thrown into the spinal canal. The child at the time was desperately ill, but slept quietly that night and the next day her condition was so much improved that there were no longer symptoms of meningitis. Upon her recovery it was found that she had developed a tuberculosis of the right kidney, for which nephrectomy was performed 5 months later. The general health at once improved and the hip and ankle tuberculosis showed a marked tendency to heal. In another five months the patient was discharged clinically cured and is at present in the best physical condition despite the fact that her home surroundings are unfavorable.—*Muenchener medizinische Wochenschrift,* November 12, 1926.

Preoperative and Postoperative Treatment in Patients With Gastric and Duodenal Lesions.—R. Franklin Carter gives detailed instructions for the more careful preoperative and postoperative treatment of this class of patients as a means of further reducing the mortality of the operative period. In the preoperative period, if there is evidence of obstruction with accumulation of foreign material, repeated washings are indicated with solutions to which hydrochloric acid (20 minims to the quart) has been added. These should be given two or three times a day for two or even three days before operation. If there is absence of free hydrochloric acid, this should be supplied by mouth. In the peculiar type of anemia accompanying gastric lesions, transfusions, moderate in amount and repeated two or three times in the course of two or three weeks, reduce the danger of death from shock, infection, and cardiac failure. Except in extreme emergency, operation for a gastric lesion should not be performed until knowledge has been obtained of the blood sugar, chlorides, and carbon-dioxide combining power. If the latter is below 40 it indicates acidosis and should be combated by glucose 3 per cent and sodium bicarbonate 1 per cent, in 800 c.c. doses, until the carbon-dioxide combining power reaches 50. High carbon-dioxide combining power indicates alkalosis, and is counteracted by giving chlorides in 2 to 4 per cent solution, in doses of 1,000 c.c. In those who have been under the Sippy routine, the alkali should be discontinued one week before operation. In the presence of obstruction sodium chloride is the most effective agent. Catharsis should be avoided in the 24 hours preceding operation. Feeding in non-obstructive cases is continued until 8 hours before operation. After operation, if respiration and pulse are regular, the patient should be kept under morphine for the first 8 hours. A record of the pulse should be taken every hour for 6 hours, as thus postoperative hemorrhage may be suspected before it reaches a dangerous stage. After the first 4 hours water may be given by mouth with sugar or some flavoring. On the second day the fluid intake should be 2,000 c.c., the total food intake 400 calories. Recovery depends largely upon the nursing, as frequent and concentrated foods in small amounts must be urged upon the patient. Frequent blood analyses insure against unexpected acidosis or alkalosis. The fluid intake should be supplemented by subcutaneous saline as glucose cannot be used daily since it is apt to cause inflammation, nor should rectal feeding be employed. Hemorrhage, vomiting of bile after 18 hours, and delayed shock, are treated by frequent lavage with water at 100°F. In postoperative obstruction the decision to operate may be placed without equivocation on the blood findings alone. Here replenishing of the chlorides is of first importance, though operation should never be delayed with a carbon-dioxide combining power above 90 and a chloride above 0.35. A carefully planned simple diet is outlined for the convalescent and follow-up period.—*Surgery, Gynecology and Obstetrics*, January, 1927, xliv, 1.

Electrical Treatment of Obesity.—Franz Nagelschmidt, writing in *Physical Therapeutics*, January, 1927, vol. xiv, 1, points out that, aside from race peculiarity, obesity is always a symptom of disturbed metabolism. It is unscientific to expect that any method will cure every case of obesity. Rational treatment for obesity must consist first in a diet which restricts fat, carbohydrates, and liquids to a certain degree; secondly, it must alter the metabolism, *i.e.*, essentially the internal secretions or their vegetative control. This is done by muscular work well directed and slowly increased (electrorhythmic) and by laxatives; by the treatment of certain organs (for instance diathermy to the liver, *x*-ray therapy to the thyroid, stimulating irradiation of the ovaries, diathermy to the ovaries and testicles, diathermy to the pancreas); by psychic therapy, strengthening the will power; by improving the circulation by means of diathermy and the electrorhythmic current. Finally, the position therapeutically reached must be maintained by regulating the mode of living—moderate diet, regular exercise and fresh air, sport, moderation in drinking, especially alcohol. Since obese people dislike to do physical work and often are unable to do it, the electrorhythmic current represents, next to diet, the most important factor of the therapy. The author has devised a new apparatus for supplying an alternating current which is subject to regulation in all its characteristics—tension, intensity, number of periods, duration of current flow. With a dry element current as supply there are sixty alternations a second. The clinical application of this new current affects a variety of fields. Employed without interruptions, the current is suited for producing electrical sleep, electrical narcosis, and electrical anesthesia. With rhythmic interruption, it serves for diagnostic purposes, applied to single muscles or parts or groups of muscles, or to nerve points. It may be used in paralysis or muscle debility—after operations, after confinement, in infantile paralysis, fractures, etc. Applied to the whole body it is useful for exercise and for the treatment of heart diseases, to promote reconstruction and in the treatment of disturbed metabolism, especially of obesity. In relatively sound obese patients a course of twenty-five daily sittings of one hour's duration is usually sufficient. The general technique calls for an equal performance by the whole musculature of the body. The results are tabulated for 300 patients treated in this way; those who had 35 sittings or more lost an average of 12.6 per cent in weight.

LEGAL

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DR. CASPER PENDOLA—MARTYR

Recently in Brooklyn a tragedy occurred. Little six-year-old Joseph Caruso was lying ill. His father Frank was alarmed. The boy had been sick for two weeks without medical attention. Finally the father decided to call in a doctor. Dr. Casper Pendola was summoned and there, in this little Italian home, he made an examination of the child and saw at once that the boy was suffering from diphtheria and was close to death. Doubtless there was no way in which the child's life could be saved. The Klebs-Loeffler bacilli had been carrying on their devastating work too long. Perhaps an injection of anti-toxin, even at that late hour, might help and Dr. Pendola injected it. Through the night the boy grew worse. Crazed with anxiety the father watched. In the morning the whole family—the father, the mother Marie with the infant Edith in her arms, the nine-year-old sister Lena, the eight-year-old Josephine, the three-year-old Anna and the two-year-old Salvatore were all assembled in panic-stricken silence in the kitchen of the four-room flat where Joseph, stretched upon a cot near the stove, was fighting feebly for his life.

There was a rattle in the boy's throat. In the silence the ticking of a clock in the adjoining room was heard; otherwise there was no sound. In a little while the boy was dead. The ambulance surgeon who was called gave the infant one brief look and turning away said, "There is nothing to be done; the child is gone." "That other doctor killed him and I will kill him when he comes," the father cried. This was at half past ten in the morning.

Four hours later there was a knock at the door. "Keep quiet," the father said, "it is the other doctor. I will kill him." Dr. Pendola entered and as he came the father leaped for his throat in an effort to strangle the doctor with his bare hands. "You killed my boy," he shouted. "You thrust a needle into him and he died." There was a brief scuffle. They rocked back and forth across the room, crashing into a chair, which was splintered. They rolled on the floor locked in each other's arms. They staggered to their feet; they tripped over other furniture and there was a sound of swift-taken breath and the crack of broken wood. Caruso's hands were at the doctor's throat. The two men fought on struggling amid a tangle of chairs and bedclothing. Rolling free of it they fought on through an open doorway into another bedroom, where Caruso again flung the physician upon the bed, at the same time snatching up a butcher's knife fifteen inches long. The knife was kept in the kitchen. How was it that the knife was there at the assailant's hand ready for use? Presently the tumult ceased. Again there was silence and Caruso came out of the bedroom and went to the kitchen sink and washed his hands. "Keep quiet," he said to the terrified mother cradling the crying infant in her arms. "I have killed him; say nothing." He put on his coat and hat and walked into the street. A little later the police came. Dr. Pendola lay upon the bed. His throat had been cut. He was dead. The young doctor, only twenty-seven years old, had given his life in the cause of medicine. All that science could do, he had done. All the skill and knowledge of the healing art had been brought to bear to save a hopeless case and his reward was assassination.

Any doctor going into such a home may become a victim of demoniacal ignorance, and yet just as the soldiers in an advance push on after their comrades have been shot down, the medical profession will continue in the pursuit of its high calling, in the alleviation of pain and suffering, in the great struggle against disease and death. It is not often that the ingratitude of patients manifests itself in so extreme and tragic a form. Yet ingratitude of some kind is ofttimes the only reward accorded to the doctor for his skill, diligence and self-sacrifice in following a high calling.

No less malevolent, no less unfounded, no less cruel, are the assaults made by patients on their doctors through the familiar medium of malpractice suits. It is a privilege and pleasurable duty to stand between them and the unjustified assaults which their ungrateful patients so often launch against them.

Dr. Pendola was a true martyr of the medical profession; but the blood of the martyrs is the seed from which renewed inspiration will spring. The prevention of such a tragedy as his will come from a broader education of the people in medical subjects, under the leadership of family doctors.

Especially is this education needed in the case of foreigners to whom a hypodermic injection appears to be a poison, and a cut an unjustifiable assault.

DIPHTHERIA CAUSING ACUTE MYOCARDITIS AND DEATH

An action was brought by a father as the administrator of his deceased son. He claimed that in the month of December he engaged the defendant as a physician to attend his son and to cure him of diphtheria from which he was then suffering. That as such physician the defendant undertook to attend and care for the son. It is charged that as such physician he did not use proper care or skill, that he failed to take a culture in due and proper time, that he failed to administer an anti-toxin in due and proper time and negligently prescribed and administered to the deceased patient. That by reason of the negligence of the defendant physician the patient did not recover but died from diphtheria. $10,000 damages were asked for the death of the patient.

The family of the patient were known to the defendant physician for about three years and during this time had attended and treated various members of the family for different ailments.

At about 6 P. M. on December 16th, he was called to attend the deceased, a boy about eight years of age. The mother gave him a history that the child had an attack of tonsillitis. Upon examination of the child's throat the physician found a condition of acute tonsillitis and prescribed citrates and salicylates. The mother stated that the child had been sick for several days and at the time of his examination had a temperature of 101°. In the preceding May and June the defendant physician had seen this child and had treated him at that time for an attack of tonsillitis and had also advised the performance of a tonsillectomy. In the preceding year the child had also had attacks of tonsillitis for which the defendant had treated him. These attacks lasted from three to four days. At the examination made on December 16th the pulse was found to be rapid and the throat congested and a diagnosis made of tonsillitis. From his examination the defendant found that only the tonsils were infected and there was practically no membrane at that time. He called again on December 17th to see the patient and found that his condition was markedly improved, the temperature was then 100°, pulse and respiration had come down to almost normal and the child looked much better. He advised the mother to keep the child in bed and to continue the medication.

On December 18th he found the pulse and respiration normal, but there was a slight increase in temperature and on examination of the throat he noticed a white spot on the right tonsil. This examination was made at about 10 A. M. He called the mother and showed her the white spot upon the tonsil. He did nothing further at that time, but stated that he would call again in the afternoon and give the child 12,000 units of anti-toxin. During the afternoon the physician returned and administered 12,000 units of anti-toxin. He gave the mother instructions to have the child gargle his throat with glycothymoline listerine. The physician called upon the child on December 19th and on examination of the throat found that the white spot had disappeared, the tonsil condition was also clearing up, the pulse and respiration were normal. He again advised the mother to continue the medication and gargle as previously instructed and that the child be kept in bed. No further anti-toxin was administered on this visit. The child was again visited on December 20th and 21st, when the condition of the child was found to be the same. On each of these visits the throat was examined, the temperature, pulse and respiration were taken and the medication previously prescribed was ordered continued. No further anti-toxin was administered on either of these days. On December 21st a report was made to the Board of Health by the defendant physician that the child was suffering from diphtheria and that he was attending the child for such condition. During his treatment of the child no culture was made by the physician. On December 22nd he had ordered a stimulant of whiskey to be given to the child by way of mouth, a teaspoonful in water every two or three hours. When the physician called at the boy's home on December 23rd the father stated that he objected to the use of anti-toxin as some doctor had told him that anti-toxin damages the heart and that the boy was dying because anti-toxin had been given him. At this time the physician examined the child's throat, took his pulse and respiration and found that all were clear. The mother stated that the child wanted to go downstairs for lunch, but the doctor advised against this and stated that the child should be kept in bed. When leaving the patient's home on this visit he told the mother that he would not see the child on the following day, which was Sunday, but would call in to see him on Monday, December 25th.

On December 23rd, at about 3 P. M. a telephone call was received by the doctor from the patient's home that the child's face and lips were blue. He immediately went to the home of the patient, examined him and found an acute myocarditis. A hypodermic of two grams of camphor and oil was administered. The pulse at this time was rapid and weak and the respiration was labored. The child was surrounded with hot water bags and blankets and kept in bed. The defendant physician then called a heart specialist in consultation. The specialist examined the child thoroughly and confirmed the diagnosis of the defendant. The mother was advised that the child was suffering from an acute dilatation of the heart due to toxemia. The specialist ordered a stimulant of camphor and oil and digitalin, which were administered hypodermically. At about 8 P. M. on December 23rd the defendant physician again returned to the home of the patient and hypodermically administered digitalin. The physician remained with the child for about a half hour, at which time the child seemed to be much better. However, there was a pallor over the child's body, his face and lips were still blue and the doctor stated that the child was kept alive by the use of the whiskey stimulant. At about 9 A. M. on December 24th the physician again called on the child, found his pulse weak and rapid, respiration labored and the body cold. No change in medication was ordered. He again returned at about 4 P. M. of that afternoon accompanied by the consultant. Further administration of camphor and oil and digitalin were ordered. A nurse had been procured and was in attendance upon the child. The defendant physician called on the child at about 10 A. M. on December 25th. The child at this time appeared to be very weak with a fairly good pulse. The nurse, with the father's permission, had been permitted to be away over the holiday. At about 4 o'clock of that afternoon the defendant was sent for and upon arrival at about 4:45 P. M. he found the child dead. The death certificate was made out by the defendant physician, the cause of death being given as acute myocarditis due to diphtheria.

The parents thereafter complained of the defendant's treatment to the Health Commissioner who summoned both the parents and the physician before him and had a private consultation with them. The defendant was advised by the Commissioner that he had not complied with the sanitary provisions in that he failed to take a culture; he was further advised that the death of the child was not due to the treatment upon his part.

After the action had been pending for some time and after further inquiry into the matter by the plaintiff's attorney and they being satisfied that the death of the child was unavoidable and not due to any negligence or carelessness upon the defendant's part, they consented to the discontinuance and termination of the action.

BURN IN ADMINISTRATION OF ELECTRICAL THERAPY

In this action it was charged that in the treatment of the plaintiff for the illness from which he suffered, the defendant physician had used certain electrical appliances and electrical machinery; that the use of the same was carelessly and improperly done by the physician so as to cause the plaintiff's arm and hand to be burned, with a subsequent infection, rendering the patient ill, preventing him from following his usual occupation, causing him to be treated by other physicians and to expend monies in his attempt to be cured of the injury claimed to have been caused by the defendant. In this action he sought to recover damages for these injuries.

The plaintiff in this action, a middle-aged man, called upon the defendant physician complaining of nervousness, and after examination by the defendant it was decided to administer electrical treatment for the patient's condition. In preparing for the administration of the electrical therapy, the patient was brought into the electrical treatment room, seated in a chair alongside of a Wappler machine. The defendant's associate, a physio-therapy technician, then proceeded to administer the electrical treatment. The chair was equipped so that the current would pass through the body of the patient, through the chair, thus forming a ground. The buttocks were bared and likewise the arm. To the arm was attached a metal wristlet. This method of electrical treatment is described by the defendant physician as auto-condensation. The patient was first treated on February 10th and then every other day until about March 1st, like treatment being administered to him each time that he called. The next seen of the patient by the physician was March 15th, at which time the patient called upon the defendant and exhibited his arm where there appeared a superficial burn at the place where the wristlet had been attached to the arm. No treatment was rendered by the defendant physician at this time and this was the last that the patient was seen by the physician.

The trial of this action resulted in a verdict in favor of the defendant.

NEWS NOTES

THE GOVERNOR'S HEARING ON COUNTY DEPARTMENTS OF HEALTH

On February 24th, in accordance with a previous announcement, the Governor gave a hearing to representatives of about 30 county boards of supervisors, officials of the Department of Health, the Medical Society and certain lay organizations interested in public health, on the question of the creation of county health units. There has been a statute on the books for about five years, authorizing the creation of county health units and offering, on the part of the state, to reimburse the counties 50 per cent of the amount of money expended annually in conducting such health units, but up to the present only one county—namely, Cattaraugus—has availed itself of this opportunity, and the Governor was eager to discuss with persons whom he considered informed on the matter, why the offer had not been more generally accepted.

Among those speaking, at the time, was President George Fisher, who said that the State Society was appreciative of the interest the Governor had shown in public health activities, and that he wished the Governor to understand that the State Society is willing to consider ways by which it might cooperate with the proper authorities in promoting conditions of health in the state.

Mr. Homer Folks, Secretary of the State Charities Aid Association speaking from the standpoint of the County Tuberculosis and Public Health Committees said:

"The funds for county Tuberculosis Committees are secured through the sale of Christmas seals organized and directed by these county committees amounted last holiday season to $515,000—a very large addition to the resources available for health work throughout the state. Most of the county committees are able to employ full-time executives, some of whom are nurses who actively promote a good health program for the entire county. They assist in the establishment of county tuberculosis hospitals, in promoting public interest and assistance in the management of such hospitals, in securing clinics through which the right patients are found for hospital care, and in securing home assistance and medical supervision for patients going back to their homes after hospital care.

"The Secretary of the County Tuberculosis Committee is, however, in most cases, the only representative of any organization pushing a county-wide health program and with the limitations of a voluntary agency there is urgently needed a strong county-wide general health authority.

"These voluntary county health committees would gladly follow the lead of an official county health agency. They want it and would gladly cooperate with it and assist it in every way. They do the best they can under present circumstances but their usefulness is limited by the absence of a corresponding public health authority.

"The voluntary health agencies of the state have already gone on a county basis through sheer force of circumstances and as the only method of getting results. They urge that public health work take a similar course and pledge to it their cooperation, and ask from it authoritative leadership."

Doctor Matthias Nicoll, Jr., State Commissioner of Health, said that the state had gone practically as far as it could in furnishing health protection to the people of the state without securing larger units of public health administration. He strongly advocated the county as such a unit. He also advocated amendments to the existing law, which would place a larger measure of responsibility and authority in health matters upon Boards of Supervisors. He said that Cattaraugus County was a proving ground for health work.

Governor Smith summed up the situation in an informal twenty-minute address, from which the following abstracts were taken.

"We have here the fundamental question that this state is constantly being confronted with, and that is that the day must come when we have to get away from the old-fashioned government that was set up by our law and in the Constitution when it took a whole day to get here from New York.

"Now consolidation is popular. We have just consolidated some 150 boards and commissions in the state government, and, as a result yesterday and two weeks prior to yesterday, I was able to sit around a table in this room here with the responsible head of every branch of the government in this state, with the exception of the Comptroller and the Attorney-General who were elected with duties clearly defined in the Constitution and not of any administrative character.

"Dr. Nicoll said something about sticking to the old idea, the old town, and the old village idea. Of course, throughout the length and breadth of this land, this state has the unenviable reputation of being absolutely reactionary. We don't try anything new. It is almost impossible to get any place with it. You have got to have it debated for years; you have got to make arguments about it, gather people together, make a great deal of publicity for it, no matter what it is. It took us nearly eighteen years to enact the Mothers' Pension Law. Nobody who is in the Legislature or who is out of it would seriously suggest that we go back to the old method. We were ten years getting the Workmen's Compensation Law, and the very men who opposed it most vigorously were the ones who afterward declared that under no circumstances would they ever think of returning to the old condition.

"We will have to get away from the small unit in time. The state is growing away from it, it is getting too big. Distance has been annihilated by the automobile and by the speedy trains, by direct communication with the telephone, and now the radio. We are all neighbors together.

"Where would the City of New York get off if they had five health departments, one for each borough? It is perfectly all right to have five sewer departments and five departments of public works, or five departments of highways, or five departments of public buildings, because conditions may not be the same in the different boroughs. A sewer constructed on Manhattan Island may be entirely different from one constructed in the Borough of Queens. But certainly, scarlet fever and measles are the same, no matter where it is. They can not divide that by borough lines. You can not have a Kings County brand of tuberculosis and a Bronx County brand. So that public health work in its very nature has got to be cared for in the largest unit you can put it in. If you look at the structure of the Department of Health of the state even as far back as the time of its organization, that must have been an important consideration in its make-up, because, outside of the city of New York it takes a full and complete control notwithstanding the local agencies already set up.

"I do not think that you can figure this question of public health on a dollars and cents basis. I think that is the most foolish, most short-sighted policy that the state could adopt. Preventable sickness and preventable disease is the cause of a great deal of crime, and look how dearly we pay for that in after years by our failure to make adequate appropriation to check at the right time. What happens when the sick person becomes a public charge? Think of the misery and privation and disease and sickness that follows from a failure on the part of the state to take the proper view and preventable steps at the critical period.

"I do not believe this state spends anything near the money it should in the interest of public health, taking the state as a whole. We are putting more money every year into the operation of a canal that nobody seems to have any use for. We have spent an awful lot of time trying to induce men to build canal boats to operate on the canal. I am pretty sure we are spending nearly as much for the conservation of wild life in the state and the preservation of the forests as we are directly for the promotion of the public health.

"Now certainly everybody is for health and for education. The only thing to do is try and get it going right; try and get it properly understood. Our greatest problem here is to have our people understand what we are trying to do.

"Now the old-fashioned health idea was that the fellow came around and stuck the red or yellow flag on the door and locked everybody in and it was all done. That is not the state's idea of public health today. Our own department reflects it. It is the clinical laboratory service; the nursing service; the educational program for the prevention of disease, and the opportunity for better treatment.

"There has been a drift towards county administration of certain health matters, but that drift has been by the lack of proper control; it is haphazard; it is not performed in a satisfactory way; but the drift indicates that the time is not far away when the question of public health will have to be a county function if it is to be properly and scientifically, and incidentally, let me say, economically managed, because the $10 note for public health that is wasted is a double waste. We can lose $10 on the building of a road, but we can not afford to lose it on either education or public health, because you can not make it up. When it goes, it is gone forever. So that economy will in time suggest to us that this larger unit be adopted.

"I hope that from the meeting today will grow something worth while to the state. I hope that the members of the boards of supervisors from other counties will not be discouraged because it has been brought out in the meeting that a large amount of private funds have helped make Cattaraugus County so successful.

"I can speak for the state and for the temper of its government. If we found the different counties a little bit more active and a little bit more willing, it is entirely possible for the state to be a little more generous. But it is a bit discouraging to the state to think that no county wants to take advantage of the state's subsidy, for so important a function as the public health. And bear in mind this, that you are paying part of the subsidy that is going to Cattaraugus, and every county ought to be looking after some part of it for themselves, because it will pay not only in dollars and cents from the state but it will pay in the return of public health and better citizenship and a more vigorous people in the county where the money is properly and carefully expended.

"Now that sums up all I have to say, except to thank all who came here today and if you have any desire to formulate yourselves into any kind of a committee for the promotion of what we have been talking about today, I will be glad to give it my active support, all the time I can spend at it, and help it in every way that can be done through the Executive Department."

TRI-STATE CONFERENCE

A meeting of the Tri-State Conference of representatives of the Medical Societies of New York, New Jersey, and Pennsylvania was held on Saturday, February 26, in the Hotel Pennsylvania, New York. Dr. George M. Fisher, President of the Medical Society of the State of New York, presided, and the conferees were guests of the Medical Society of the State of New York at a midday luncheon. Fifteen members were present, as follows:

From the Medical Society of the State of New York:

George M. Fisher, President; Daniel S. Dougherty, Secretary; Joseph S. Lawrence, Executive Officer; Frank Overton, Executive Editor; N. B. Van Etten, Past President; James E. Sadlier, President-Elect; and Thomas P. Farmer, Past Commissioner of Health, Syracuse.

From the Medical Society of New Jersey:

James Green, President; J. B. Morrison, Secretary; H. O. Reik, Editor; and S. B. English, Superintendent of the Glen Garden Tuberculosis Sanatorium.

From the Medical Society of Pennsylvania:

A. C. Morgan, President-Elect; Frank Hammond, Editor; and Wilmer Kreusen, Commissioner of Health, Philadelphia.

From the American Medical Association:

Dr. Wendell C. Phillips, President.

Dr. Fisher, in opening the Conference, spoke of its increasing importance as a medium for the exchange of ideas on administration topics, and mentioned the recent appointment of two new committees of the Medical Society of the State of New York—that on Public Relations and that on Cardiac Diseases. He introduced as the principal speaker Dr. Farmer, who is Chairman of a sub-committee of the Public Relations Committee.

Dr. Farmer addressed the Conference on The Relations of Voluntary Agencies to Physicians. "This subject," he said, "is the object of consideration by the Public Relations Committee. There is no doubt about the value of voluntary organizations to physicians in promoting the same aims for which physicians work; but probably most physicians recall their infrequent dysfunctious rather than the great good which they do.

"While physicians are leaders in public health movements, yet the execution of their plans requires the assistance of voluntary organizations in order to raise money and create public sentiment. While friction and misunderstandings have resulted when voluntary organizations have acted without consulting the practicing physicians, mutual helpfulness has followed the recognition of the peculiar fields of each group of organizations. There is a danger to lay organizations themselves when they have misunderstandings with physicians. They cannot work efficiently unless their medical bases are sound; and if the bases are not fundamentally correct, financial gifts from their supporters will cease. Happily the major problems in the differences between the lay organizations and the medical societies are practically solved, although many physicians are not yet aware of the new agreements between the two groups of organizations.

"Voluntary organizations have tended toward the promotion of state medicine. This was inevitable when physicians themselves neglected to put to practical use the newer discoveries in preventive medicine and to develop plans to create public sentiment in favor of accepting the services of family physicians in preventive medicine. But family physicians are now awake to the necessity and opportunity of practicing preventive medicine, and treating sickness in the incipiency and preclinical stage, and even promoting a hygienic mode of life in which even the tendency to sickness is minimized. Physicians in private practice can do preventive work far better than any set of officials paid by the State.

"One source of misunderstanding has been the expectation that busy doctors will make reports and answer questionnaires for which they see no direct benefit. Surveys based on idealistic standards have been interpreted to indicate the doctors have been uncooperative with patients seeking advice in preventive medicine. The truth is that doctors have always been ready and anxious to have their patients profit by their advice.

"It has happened that when a local public health organization has become involved in a dispute with the doctors of the district, an investigation has been made by the parent society, which, of course, has upheld the action of the lay society, and in this way has perpetuated erroneous methods of work. This will be eliminated by the newly-formed committee on Public Relations of the State Medical Society which is composed of representatives of physicians as well as laymen."

Dr. Farmer referred to the tendency of the leaders of voluntary organizations to claim the credit for the progress attained in any line of work in which they may be engaged. "This may be necessary," he said, "in order to make good reports on whose basis funds may be obtained. However, any one who studies the activities of medical societies will be struck with the number and kinds of the public health work of the doctors. The Syracuse Academy of Medicine is for example a scientific body composed entirely of physicians, and yet a consideration of local problems in public health has occupied a large proportion of its deliberations. Nearly all the time of many meetings have been devoted to the practice of civic medicine. Among the public health activities promoted have been pure milk supplies, a contagious disease hospital, meat inspection, a hospital at the County Home, dental clinics, and medical school inspections."

Dr. Farmer emphasized the necessity that physicians should not merely follow the steps taken by voluntary organizations, but should assume the leadership and direction of the medical work, and be members of the boards of directors of the voluntary health organizations, and should direct their medical activities. Physicians are rapidly acquiring the ideal attitude of leadership in all public health work.

Dr. Farmer described the plans of the Public Relations Committee, especially in the promotion of county departments of health, and said that there was need for such a committee in every county society.

Dr. Wilmer Kreusen, Commissioner of Health of Philadelphia, spoke as a physician who is trying to treat the public as a patient, and who is a practicing physician specializing in community health. He described his intimate relations with over twenty voluntary health agencies of major importance. Among them were the following groups:

1. Visiting Nurses' Society.
2. Health Council which sells the Christmas Seals.
3. Child Health Association.
4. Heart Association.
5. Cancer Society.
6. Dairymen's Council.
7. Housing Association.
8. Red Cross.
9. Federation of Charities.
10. Hospital Association.
11. Day Nurseries.
12. Emergency Aid Society, working largely among crippled children.
13. Women's Clubs, especially the Women's Auxiliary of the State Medical Society.
14. Social Workers.
15. Psychiatric Clinics.
16. Playground Association.
17. Boy Scouts.
18. Mothers' Clubs.
19. Mouth Hygiene Association.
20. Commission on pneumonia.
21. Dispensaries.

Dr. Kreusen said that he found a plan of great value to be that of inviting the organizations to meet in the offices of the Department of Health, for in that way he kept in close touch with them.

Dr. Kreusen also emphasized his approval of Dr. Farmer's plan that every county society should assume the leadership in public health work, and should have a committee on Public Health Relations modelled after that of the Medical Society of the State of New York.

Dr. S. B. English outlined some of the sources of disagreements between the physicians and the voluntary agencies, especially the New Jersey State Tuberculosis League, which is like the New York State Charities Aid Association. The League has a budget of about $250,000. It staged a demonstration of examining factory laborers for tuberculosis. It sent about 3,000 letters to the family physicians of those who were examined, and received very few replies. The League interpreted this failure to reply to be a lack of interest on the part of the physicians, and it planned to set up its own clinics. Here are all the elements for misunderstandings on the part of both the voluntary workers and the physicians. The remedy is friendly consultations such as those afforded by a committee on Public Relations.

Dr. English developed the thought that doctors wanted to treat only the sick, and that the the sicker the case, the more interest the doctor took in it. The reason is largely that the doctor can give orders to a sick patient and the nurse and the family, and can get his orders carried out. The doctor cannot order a well patient, or a voluntary health organization. He must spend much time in patient explanation and persuasion for which he gets no financial fee, and from which he sees few immediate results. But in every county society there is some doctor who is specially fitted to deal with the voluntary organizations. Let him advise them in the name of the society, and let the rest of the members support him.

Dr. James S. Green, emphasized the need of a Public Relations Committee to guide the enthusiasm of the workers of the voluntary health organization.

Dr. J. S. Lawrence, Executive officer of the Medical Society of the State of New York, said that in the past the opinion of public health leaders has been that practicing physicians are not good health officers. The modern idea is that a health-officership is a specialty in the practice of medicine, and that the closer the health officer is to the practicing physicians, the better it is for the department of health, the physicians, and the public. Dr. Lawrence enumerated the list of about fifteen voluntary health agencies with which the State Medical Society is in close touch.

Dr. J. B. Morrison, Secretary of the Medical Society of New Jersey, said that voluntary agencies are here to stay because they do an indispensable work. Physicians must agree with them regarding their respective fields of work. The agreement could come through a public relations committee.

Dr. James E. Sadlier, President-Elect of the Medical Society of the State of New York, expressed optimistic views regarding the development of cordial relations with voluntary health organizations. He said that every county society had the medical talent to advise the lay societies and guide their work to their satisfaction as well as to that of the physicians.

Dr. Sadlier also emphasized the need of informing the people regarding cancer, and said that he had planned to give much of his time to that activity in his home county of Dutchess.

Dr. H. O. Reik, Editor of the *Journal of the New Jersey State Medical Society,* said that there was a plan to organize a State Association composed of all the local health associations of the State of New Jersey. He also said that the State Medical Society was planning to organize a Woman's Auxiliary along the lines which had proved successful in Pennsylvania.

Medical bills pending in the State Legislatures were briefly described. Dr. Reik said that there were two important subjects before the New Jersey Legislature:

1. Separate boards were proposed for the examinations of candidates for medical licensure—one board for regular practitioners of medicine; one for chiropractors; one for naturopaths, etc. This bill had little chance of passing.

2. An anti-rabic bill, sponsored by the State Department of Health, providing that dogs should either receive the anti-rabic inoculations, or be kept at home or on a leash.

Dr. Reik distributed samples of literature on these two subjects prepared by the State Medical Society for popular information.

Dr. Frank Hammond said that the important medical bills before the Pennsylvania Legislature were those relating to a single board of medical examiners, and several on Workmen's Compensation.

Dr. Lawrence reported that the successful passage of the Medical Practice Act last year by the New York Legislature had left comparatively few medical bills to be considered. Bills are pending providing for increased State aid to counties doing public health work as county activities.

Dr. N. B. Van Etten, Chairman of the Special Committee on Nursing of the Medical Society of the State of New York, talked informally on practical means of training bedside nurses, and suggested that the text book training in such subjects as anatomy, physiology, and bacteriology be given in a three-months course before the pupil enters the training school. This plan will allow the nurse to give all her time to gaining practical experience at the bedside, and will enable her to graduate after a course of two years.

There followed an animated discussion of the training of nurses, and all agreed that the acute need is now that of providing nurses to give ordinary bedside care to sick people.

Dr. Wendell C. Phillips, President of the American Medical Association, spoke of the changing conditions in the practice of medicine. He said that a generation ago all the medical teaching concerned the fully developed stages of diseases. But now the teaching must include the recognition and treatment of diseases in their incipiency, possibly before patients are aware of their existence. The new point of view is not that of sickness, but of health.

Dr. Phillips spoke of the leadership of the American Medical Association in the newer methods of the practice of medicine, and concretly of *Hygiea,* the medical journal for laymen. While *Hygiea* has a circulation of 50,000 yet it is widely copied by the newspapers, and its articles reach millions of readers. One result of the educational work is that women's clubs usually refuse to listen to lecturers on anti-vaccination, anti-vivisection, and similar anti-medical talks.

Dr. Phillips warned the physicians that the people were demanding protective and preventive medicine, and are inclined to force the establishment of those forms of practice by the State. Physicians must meet this condition by preparing themselves to practice preventive medicine.

The Conference voted to hold its next session in Scranton, Pennsylvania, some time during the month of May.

THE AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians held its Eleventh Annual Clinical Session during the five days, February 21-25, in Cleveland, Ohio, with about 2,000 physicians in attendance. The College of Physicians is to the internists in medicine, what the College of Surgeons is to the surgeons. The College of Surgeons is an older organization and has developed the system of standardization of hospitals throughout the country. However, the College of Physicians is in close touch with the College of Surgeons, and has representatives on its committees on hospital inspection and approval. It seeks to raise the standards of medical service in hospitals to an equality with those of the surgical wards. If a member of the College of Physicians later takes up surgery, his membership is transferred to the College of Surgeons and vice versa. While the qualifications for membership in the College of Physicians are less susceptible to exact measurement than those in the College of Surgeons, yet they are based on a demonstration of superior skill in the practice of internal medicine. Membership is an honorable recognition of a physician's superior ability and attainments as an internist.

The College of Physicians plans its programs so that its members may see new methods of medical practice demonstrated in clinics and in hospital wards. The College especially aims to reach the younger men who do not have the opportunities for frequent attendance on clinics and demonstrations.

The plan of the program of the Cleveland meeting was that the mornings were devoted to clinics, and the afternoons and evenings to the reading of scientific papers before the whole assembly of physicians. The exercises of the convocation of the College and the reception of new members were held on Friday evening, when the President, Dr. Alfred Stengel, of Philadelphia, gave the Annual Presidential Address. A banquet was held on Thursday evening.

Fifteen clinics were scheduled every morning in the hospitals of the city, some of which were subdivided. The Medical School of the Western Reserve University did the unusual thing in arranging clinics by the departments of anatomy, physiology, histology, and biochemistry. Anatomy clinics were given on the practical subjects of the growth of children and the pathogenic tendencies of anatomic variability. The Department of Histology and Embryology demonstrated relation of the tubular embryonic heart to the cardiac patient. The Department of Physiology showed moving pictures of the mammalian heart and a simple method for the registration of heart sounds, and demonstrated studies in respiration. In biochemistry there was shown the separation of hydrolytic products of proteins and the direct observation of the glomerular circulation in the frog. It is refreshing to find that the departments of medical study usually classed as pre-clinical were of direct interest to physicians engaged in the practice of bedside medicine.

Admission to the clinics was by cards which were given out only to the capacity of each clinic room. Some of the clinics were repeated.

The afternoon sessions consisted largely of symposiums. Among the subjects were diabetes, diseases of the heart and blood vessels, the gall bladder and liver, pediatrics, and the central nervous system. The subjects of the evening sessions were of a more general nature, and each program consisted of only two papers.

The names of the following physicians from New York State appeared on the program:

Dr. Harlow Brooks, New York, Past President of the College, and a present member of the Regents of the College.

Dr. W. D. Ayer of Syracuse, paper on preparalytic poleomyelitis, with results of serum therapy.

Dr. Walter A. Bastedo, New York City, paper on digitalis therapy.

Dr. Frank B. Cross, Brooklyn, paper on the recognition of carcinoma of the rectum and colon.

Dr. Charles S. Danzer, Brooklyn, paper on therapeutic procedures in pleural effusions.

Dr. Allen A. Jones, Buffalo, paper on coronary thrombosis.

Dr. David Marine, New York City, paper on iodine in the treatment of goiter.

Dr. P. D. McMasters, New York City, paper on urobilin, its physiology and pathology.

Dr. C. F. Martin, Dean of the Medical School of McGill University, was elected president. New Orleans was named as the place for the next meeting, with Dr. J. H. Musser, Jr., Professor of Medicine in Tulane University as chairman of the program committee. Tropical diseases will be the general topic of the meeting.

Any physician is welcome to attend the sessions. It is to be hoped that many physicians of New York State will attend the sessions in New Orleans and will find attendance at the meetings a happy way of combining business and pleasure.

THE ANNUAL MEETING

Of course, you are thinking about attending the Annual Meeting of the State Society which will be held this year at Niagara Falls, May 9th, 10th, 11th and 12th. You have decided to go? That is splendid; we are sure you will have a delightful and profitable time.

You will add to the pleasure of your visit if you will make your hotel reservation early. For your convenience a list of hotels is again presented. These are regular prevailing rates and the same will be in effect during the meeting. The hotels on this list are members of the Hotel Association of Niagara Falls and can be depended upon as being just as represented.

Reservations should be made direct with the hotel. Should further information be desired please address Dr. George L. Miller, Chairman of the Committee on Hotels, Chamber of Commerce Building, Niagara Falls, New York.

The annual banquet will be held on Tuesday evening, May 10th. Following the banquet there will be given a ball in honor of President Fisher. You surely will want to come to the banquet and ball. If you wish to make up your own party or table, please do so, and advise Dr. W. Roger Scott, Chairman of the Banquet and Ball Committee, Niagara Falls, New York.

In a later number of the JOURNAL, which will be designated the Annual Meeting Number, the Committee on Arrangements will endeavor to give complete information upon all phases of the meeting.

FREDERICK J. SCHNELL, M.D.,
Chairman, Committee on Arrangements.

ROOM RATES

	Person	*Room One Person*		*Room Two Persons*	
Names and Location	*Capacity*	*with bath*	*without*	*with bath*	*without*
Hotel Beirs, 109 Falls St......	211	$2.50	$2.00	$3.50	$3.00
Hotel Clifton, 18 Falls St.	175	3.00 to 3.50	2.00 to 2.50	5.00 to 7.00	4.00 to 5.00
Converse House, 325 First St.	250	3.50	2.00 to 2.50	5.00 to 6.00	3.00 to 4.00
The Edwards, 342 Prospect St.	100	3.00	2.00 to 3.00	5.00	2.50 to 4.00
Imperial Hotel, 126 Falls St.	248	2.50 to 3.50	1.50 to 2.50	4.50 to 6.00	3.00 to 4.00
The Inn, 223 Second St. ...	60	3.00	2.00	4.00	2.50 to 4.00
Moose-Tower Hotel, 313 Riverway	125	2.50 to 3.50	1.50 to 2.00	4.00 to 7.00	3.00 to 5.00
The Niagara, Jeff'son and 1st St.	414	3.50 to 5.00	3.00 to 3.50	5.50 to 10.00	5.00 to 6.00
Prospect House, 203 Second St. ..	100	3.50 to 5.00	3.00	6.00 to 10.00	5.00
Red Coach Inn, Buffalo & Main St.	50	4.00 to 6.00	...	7.00 to 10.00	6.00
Rose Cottage, 225 Second St. ..	60	3.00 to 4.00	2.00 to 3.50	4.00 to 7.00	3.00 to 5.00
Temperance House, 318 Second St. ..	504	3.00 to 3.50	2.00 to 2.50	5.00	4.00
Watson House, 316 First St.	250	2.50 to 4.00	1.50 to 3.00	4.00 to 8.00	3.00 to 4.00
NIAGARA FALLS, ONTARIO					
*The Clifton, River Road	450	4.50 to 8.00	3.50 to 5.00	8.00 to 14.00	6.50 to 8.00
Fox Head Inn, Clifton Hill	90	3.50 to 4.50	2.00 to 3.00	5.50 to 7.50	3.50 to 5.00
King Edward Hotel, Queen&Clifton St.	80	3.00	...	5.00	...
Lafayette Hotel, River Road	110	3.00	2.00	5.00	3.00
Queen's Hotel, River Road	25	3.00	...	5.00	...
°The Savoy, Bridge St........	50	4.50	4.00	9.00	8.00

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*Season May 15th to September 22nd. °American Plan.

ART EXHIBIT OF THE NEW YORK ACADEMY OF MEDICINE

The New York Academy of Medicine held an exhibition of works of art done by American physicians from March first to the fifteenth. The exhibit fills the large reception room on the ground floor and 545 articles are listed in the catalogue, done by 78 physicians. The predominating feature is the exhibit of pictures done in oil, water color, pastel, pencil and etching. The exhibit also contains photographs, sculptures, medals, woodcarving and inlay work.

The printed list of exhibits is arranged alphabetically according to authors, and runs from Dr. Robert Abbe to Dr. Max Wolf. A visitor gets the impression that some well-known physicians are as skillful in art as they are in medicine and surgery.

The catalogue contains the following introduction by Dr. Samuel W. Lambert, President of the New York Academy of Medicine:

"The activities of the members of the Medical Profession in literature and art form a side light on the lives of busy men which is very seldom brought to public view. It is more unusual to associate the profession with achievement in art than with success in literary or musical work. Many physicians have been skilled performers in music and some have become so famous in English literature that the lay public hardly knows that they were physicians at all. The careers, for example, of Oliver Wendell Holmes, Oliver Goldsmith, Tobias Smollett, were those of literary geniuses rather than of medical practitioners.

"The present exhibition is a first effort to put on public view the work of contemporary American physicians in the plastic and graphic arts. It is by no means an attempt to be complete, but an earnest effort to draw from the whole country has succeeded in bringing together examples from the far West as well as from the nearer cities of the East. It is an exhibition collected in New York and therefore a majority of the exhibits are from this city. It is hoped that subsequent exhibitions will follow and that a larger representation from the general profession can be gotten together. That busy doctors can find time to acquire the skill to do the things shown in the Academy of Medicine at this exhibition, proves a most important fact that makes for health and contentment in life. Every man and woman should find a hobby to ease the routine of business and of home living. And this hobby should, at least, have an absorbing interest and preferably should demand a creative effort."

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on February 16, 1927, was called to order at 9 P. M., the President, Dr. Friedman, in the Chair.

The minutes of the last regular meeting of the Society were read and approved. The minutes of the last regular meeting of the Comitia Minora were read for the information of the Society.

The following were elected to membership: Morton Henry Aronsohn, Samuel Frant, Sidney H. Freilich, David Hertzberg, Lawrence Levy, John R. Lynch, Louis H. Merker, Clarence J. O'Connor, Adrian Paul O'Flaherty, Sam A. Scherl, Abraham L. Wincor.

Dr. Boas presented the Report of the Committee on Public Health and Medical Education. The Report dealt with the subjects of Health Education for the laity by means of lectures and newspaper articles; a general publicity campaign concerning Periodic Health Examinations with the cooperation of the Bronx Committee of the New York Tuberculosis and Health Association; running a Health Column in the *Bronx Home News* as formerly; diphtheria prevention and the necessity of giving toxin antitoxin to children.

The President emphasized the importance of this Report, especially in regard to circularizing patients in the matter of Periodic Health Examinations and having posters in doctors' offices suggesting toxin antitoxin treatment.

Dr. Lukin, for the Committee on Medical Economics, reported progress.

Owing to the unavoidable absence of Dr. Cunniffe, Chairman of the Committee on Legislation, Dr. Landsman reported for the Committee. There has been an investigation by a Joint Legislative Committee of the proposed licensing of chiropractors. Dr. Van Etten appointed men to appear before the Committee who well represented the rank and file of the profession and they showed that the medical men were not opposed to the chiropractors provided they fulfilled all the requirements which are required of the medical man and in addition submit to the retroactive clause, with which the chiropractors refuse to comply. A new Chiropractic Bill has been introduced in the State Legislature. The Chairman of the Committee on Legislation states, as far as he knows, the general trend of the Legislature is against passing the Chiropractic Bill.

Dr. Gitlow submitted the Report of the Building Committee. The matter of meeting in the Professional Office Building is in abeyance because no building is going on there at present. Another place that could be purchased has been suggested. The Committee invites discussion by the members as to the possibility of purchasing a building. The President referred the Report to the Comitia Minora, which is to report back to the Society.

Dr. Weitzner, for the Social Committee, outlined the purpose of the Committee and its plans for the year. He announced that the Committee has arranged for a Beefsteak Dinner to be held on Monday evening, February 28th, at Ebling's Casino, and appealed to the members for their cooperation and attendance at this dinner.

Dr. Landsman introduced the following resolutions which were carried:

"WHEREAS, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Philip Rifkin, M.D.

"*Resolved,* That the Bronx County Medical Society record the sense of its loss in the death of Dr. Rifkin and that a minute thereof be placed on the records of the Society; and be it

"*Further Resolved,* That a copy of these resolutions be transmitted to the family of our departed member."

The Scientific Program then proceeded as follows:

PAPERS:

1. "Periodic Health Examination Service for High School Children," I. H. Goldberger.
2. "Backache from an Orthopedic Standpoint," Samuel W. Boorstein.
3. "The Diagnosis, Pathology and Treatment of Osteomyelitis," Frederic W. Bancroft.

Dr. Bancroft's Paper was discussed by Drs. Henry Roth, J. Lewis Amster, L. Miller Kahn and Samuel W. Boorstein.

I. J. LANDSMAN, M.D., Secretary.

THE DAILY PRESS

THE COUNTY HEALTH UNIT

The New York *Times* of February 26 makes an editorial comment on the Governor's hearing on county health units which is described on page 314 of this JOURNAL. Speaking of changed conditions brought about by increased eased and rapidity of travel, the *Times* discusses the county and state assessments for the elimination of grade crossings and the support of public schools, and continues:

"The field in which there seems to be special need for enlarging the unit of administration is that of public health. The voluntary health agencies for the prevention of sickness and promotion of physical well-being in the rural areas and villages have gone on a county basis from sheer force of circumstances, Mr. Homer Folks of the State Charities Aid Association has stated. The only county that is now administering its public health activities as a county unit is Cattaraugus. It has had the financial assistance and special cooperation of one of the Foundations in this experiment, which has been extremely successful; but it is to be expected that voluntary agencies will cordially assist under authoritative leadership whenever any county offers it. Moreover, state aid is available for every county which organizes its health work on a county basis. Under a law passed in 1923, the state reimburses the county for half of its health work.

"It is urged that every Board of Supervisors should, through a special committee, acquaint itself with the operation of the Cattaraugus County Board of Health, to the end that it may avail of the methods there employed. That county has been 'a proving ground' for health work, and visitors have come from nearly every part of the civilized world to study the plan.

"The Governor puts it succinctly when he says that we can't afford to lose what is spent for public health or education, for what is lost can never be made up. Whatever, is the best system of disease prevention and health promotion will be the most economical. Both economy and efficiency demand the county unit of organization and administration for both public and private health agencies."

The subject of county Health Departments was discussed editorially in the January 15 issue of this JOURNAL.

THE PLAGUE OF HEALERS

The New York *Times* for February 24 announced the revocation of the medical license of Leonard Lincoln Landis, proprietor of "The House of Health," New York. The next day the *Times* commented editorially as follows:

"The State Board of Regents at Albany has taken away his medical license from a well-known proprietor of a "House of Health" in this city. The complaints about his methods were varied, and certainly seem to justify the action of the Regents. But, though this was an important case, the Secretary of the Board of Medical Examiners seems to have been unduly sanguine in predicting that it would have the effect of largely cutting down 'quackery in the medical profession.' The very 'doctor' in question had snapped his fingers at the Regents in advance, and had said that it would not make a particle of difference to him if his license were taken away. He would go on making money out of the trusting public just as before.

"It is an undeniable fact that irregular practitioners have greatly increased in number in this country, parallel with the efforts to improve medical education, to get rid of dubious schools of medicine conferring questionable degrees, and to stiffen the requirements for a medical license. In 1924 the Association of American Medical Colleges appointed a committee to make a special study of the whole question of medical education and medical practice in the United States. Last month it issued a preliminary report, in the course of which it stated that 'between 1910 and 1920 there was an increase of 116 per cent in the number of healers of various kinds other than medical practitioners and osteopaths. In all probability the numbers have continued to rise since 1920.' It is an old and curious story. Alongside science we always have ignorance raising its unabashed head. So long as a great multitude continues to have superstitious ideas about the causes and cure of disease, so long will healers flourish in the land, whether they are or are not permitted to call themselves doctors."

THE POETRY OF SCIENCE

The poetry of science, so well illustrated by Fracastor's poem "Syphilis," reviewed on page 304 of this JOURNAL, is shown in these modern times by an address of Michael Pupin, Professor of elctro-mechanics in Columbia University. Speaking on electrons recently before the Alumni Association of the Polytechnic Institute of Brooklyn, Dr. Pupin is reported in the New York *Sun* of February 26 as saying:

"The electron is the most law-abiding creature in the universe; the most ordinary intelligence can manage it. It loves, honors and obeys the law and its eternal mission is to serve . . . . God employed the heavenly host of electronic workers to build the atoms, the molecules and the galaxies of burning stars. These celestial furnaces, throbbing with the blazing energy of the electronic host, are molding all kinds of planetary castings and tempering them so as to be just right for organic life.

"One of these primordial planetary castings is our mother earth; it is a mere dust speck in the universe, but this dust speck is the home of the soul of man, and this lifts our tiny earth to a place of honor near the throne of God. The soul of man is, as far as we know, the noblest product of God's creation. Its breath of life is the beautiful electronic music, and to be thrilled by the melody of that cosmic song is the highest aim in our study of electrical science."

The poetry of science is further illustrated by the following poem on the new medical center of Columbia University, written by Dr. Elmer Ellsworth Brown, Chancellor of the New York University, and printed in the New York *Times* of March second:

"Cliff on the cliff upraised by human hands,
In morning mist, before the day is bright,
Or in the mellow glow of evening light,
Portentous, dominant as a dream, it stands;
But when the Summer noon, in blocs and bands
Of sun and shadow, thrusts it on our sight,
That naked form of majesty and might
Speaks the stern veritas of desert lands.

On such a crag was old Prometheus bound,
But here the fire of Heaven shall rend the chain
And slay the vulture; here the sick shall find
Life rounding out again its broken round,
Nor all Olympus grudge the raptured gain,
Where man shall grasp the power to heal mankind."

WHEN IS A MAN DRUNK?

The need for tests for alcoholic intoxication was discussed editorially in this Journal on January first. The signs and symptoms of drunkenness have been investigated by a committee of the British Medical Association and its report is summarized on February 18 in the New York *Herald Tribune*.

The news item says that the report promises to be the toper's Magna Charta, for it discards such tests as thick pronunciation, wabbly gait, rapid pulse, and failure of convergence of the eyes, on the ground that all these signs may be produced by organic nervous diseases. The newspaper quotes from the report as follows:

"A person is under the influence of alcohol if there is a smell of liquor in the breath, provided there is a combination of all or most of all of the following groups of signs or symptoms:

"1. A furred tongue.

"2. Irregularities in behavior such as loquacity or sullenness.

"3. A suffusion of the conjunctive and a reaction of the pupils.

"4. Loss or confusion of memory, particularly as regards recent events and appreciation of time.

"5. Hesitancy and thickness of speech and impaired articulation.

"6. Tremors and errors of co-ordination and orientation.

"Despite this list of tippling tests, the committee ends its report with a note of despair.

"Drunkenness cannot yet be measured by any definite standard. The word 'drunk' should be taken to mean that the person concerned is so much under the influence of alcohol as to have lost control of his faculties to such an extent as to render him unable to execute safely the occupation in which he is engaged at a material time."

Although these tests may not be convincing, some judges are wise in their interpretation of signs and symptoms which they understand. The county judge of Nassau County in an address before the county medical society, said that an excellent test for drunkenness is to take off the hat of the suspected man and replace it on his head. If he does not try to refit it to his head, he is drunk. The theory is that no one can put on a hat for a normal man, or wipe his face to his satisfaction—he wants to do it over again.

PLAGUES, CAMELS AND AUTOS

That the menace of the plague is increased by modern means of transportation is well brought out by the following editorial in the New York *Herald Tribune* of March third:

"Half way between Manchouli, where the Trans-Siberian Railway crosses into Manchuria, and Urga, the capital of Mongolia, the pneumonic plague broke loose in November in the sudden mysterious manner in which it used to pounce upon Western countries. There had been isolated cases in the autumn among marmot-hunters—and the Mongolian marmot can play much the same role on the plains as the filthy rat plays in carrying the disease through the cities—but suddenly the disease struck down five hundred victims in two days. Those who escaped the malady fled and carried the germs with them; by mid-December half a dozen Mongol hamlets were infected. Immediately Russian doctors set out from Urga; Chinese doctors stood guard on the Manchurian frontier, and the plague was checked.

"Caravans take at least a week to reach Manchouli from Sanpeitzu," Dr. Wu Lien-teh, director of the North Manchurian Plague Prevention Service, reports, "so that individuals infected at the latter would be ill already when arriving in Chinese territory, and would, therefore, be detected. Motor cars take only a couple of days, but . . . the passengers must be in good circumstances in order to afford such traveling. Consequently they are not likely to be in close quarters with the poor Chinese in their crowded winter quarters, where the disease may assume epidemic proportions.

"The despised camel has its virtues, from the point of view of plague detection. When automobiles are cheap in North Asia the plague will spread more easily. But there on the dusty trade routes which are plied today as they were plied in Marco Polo's day and a thousand years before Marco Polo, the Black Death, which six centuries ago cut Europe's population in half, which until within a century was a constant peril to the West, whose germ was isolated only three decades ago, still stalks with the camels and takes its grisly toll."

WHEN DANGER CALLS

Collier's Weekly for March 5 contains the following editorial entitled "When Danger Calls," which would be equally suitable for a Church publication or a Medical Journal:

"A Negro school teacher of Manteo, N. C., cut her foot and developed tetanus.

"The nearest doctor was miles away and so an ambulance seaplane from Hampton Roads was flown down to administer relief.

"During a recent blizzard which filled the Iowa roads with snowdrifts four to six feet deep a five-year-old boy was taken critically ill.

"An immdiate operation was found necessary and the hospital was nine miles away.

"News of that boy's peril aroused the town of Rowley and the entire community dug a road through twelve miles of snowdrifts.

"Lives were saved because men were willing to work and undergo hardship without hope of reward.

"The mere knowledge that an unknown Negro woman and a little child were in danger drove men out of their homes to fight for their safety.

"Remember these things the next time the general cussedness of humanity seems quite intolerable.

"An emergency nearly always brings out the good."

DISABLED SOLDIERS

The New York *Times* of March 6th contains a brief summary of the conditions for which disabled French soldiers are receiving pensions. The article is as follows:

"The tragedy of the World War was again brought home to Frenchmen today with the announcement of the official figures of the total number of French ex-service men receiving pensions on Jan. 1, 1927, because of permanent injuries sustained during the conflict.

"Of the 700,000 listed, 404,606 are either legless or armless or have but one arm or leg; 235,884 have consumption or lung troubles of various kinds; 27,281 have eye injuries, including 2,585 who are completely blind; 17,730 have ear deformations, including 4,338 who are totally deaf; 8,588 have disfigured faces and 14,502 are mentally deranged.

"The total does not take into consideration many thousands of former soldiers whose permanent deformities do not entitle them to pensions because they have been classified as slight, that is to say, 10 per cent or less."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

The Practice of Medicine. By A. A. Stevens, A.M., M.D. 2nd Edition, entirely reset. Octavo of 1,174 pages. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $7.50.

Studies in Psychology and Psychiatry. From the Catholic University of America. Edited by Edward A. Pace. Vol. I, No. 1. The Psychology of Reasoning. By Miriam Frances Dunn. Octavo of 141 pages. Vol. I, No. 2. Diastatic Activity of the Blood Serum in Mental Disorders. By John William Rauth. Octavo of 32 pages. Baltimore, The Williams and Wilkins Company, June, 1926. Price per volume, $5.00.

The Treatment of Chronic Deafness by the Electrophonoïde Method of Zündburguet. By George C. Cathcart, M.A., M.D. 12mo. of 88 pages. London and New York, Oxford University Press, 1926. Cloth, $1.35. (Oxford Medical Publications.)

The Treatment of the Acute Abdomen. Operative and Post-Operative. By Zachary Cope, B.A., M.D. Octavo of 238 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $3.50. (Oxford Medical Publications.)

Self-Care for the Diabetic. For the Use of Diabetic Patients. By J. J. Conybeare, M.C., M.D. 12mo. of 70 pages. London and New York, Oxford University Press, 1926. Cloth, $1.15. (Oxford Medical Publications.)

Chronic Rheumatic Diseases. Their Diagnosis and Treatment. By F. G. Thomson, M.A., M.D., and R. G. Gordon, M.D. Octavo of 202 pages. London and New York, Oxford University Press, 1926. Cloth, $2.75. (Oxford Medical Publications.)

Reports of the St. Andrews (James Mackenzie) Institute for Clinical Research, St. Andrews, Fife. Volume 3. Edited by David Waterston, M.D. Octavo of 227 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $3.00. (Oxford Medical Publications.)

Infant Mortality and Its Causes. With an Appendix on the Trend of Maternal Mortality Rates in the United States. By Robert Morse Woodbury, Ph.D. Octavo of 204 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $3.50.

International Clinics. Thirty-sixth Series. 1926. Volume 4. Octavo of 308 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1926.

Transfusion of Blood. By Henry M. Feinblatt, M.D. Octavo of 137 pages, illustrated. New York, The Macmillan Company, 1926. Cloth, $3.00.

Clinics, Hospitals and Health Centers. By Michael M. Davis, Ph.D. Octavo of 546 pages. New York and London, Harper and Brothers, 1927. Cloth, $5.00.

History Taking and Recording. By James A. Corscaden, M.D. 12mo. of 78 pages. New York, Paul B. Hoeber, Inc., 1926. Cloth, $1.50.

The Normal Child and How to Keep It Normal in Mind and Morals. Suggestions for Parents, Teachers and Physicians; With a Consideration of the Influence of Psychoanalysis. By B. Sachs, M.D. Octavo of 111 pages. New York, Paul B. Hoeber, Inc., 1926. Cloth, $1.50.

Practical Surgery of the Joseph Price Hospital. By James William Kennedy, M.D. Octavo of 861 pages, illustrated. Philadelphia, F. A. Davis Company, 1926. Cloth, $10.00.

Shell Shock and Its Aftermath. By Norman Fenton, Ph.D. With an Introduction by Thomas W. Salmon, M.D. Octavo of 173 pages. St. Louis, The C. V. Mosby Company, 1926. Cloth, $3.00.

An Introduction to the Practice of Preventive Medicine. By J. G. Fitzgerald, M.D. Assisted by Peter Gillespie, M.Sc., C.E., and H. M. Lancaster, B.A.Sc. 2nd Edition. Octavo of 792 pages, illustrated. St. Louis, The C. V. Mosby Company, 1926. Cloth, $7.50.

Physiology and Biochemistry in Modern Medicine. By J. J. R. Macleod, M.D., LL.D. Assisted by Roy G. Pearce, A. C. Redfield, N. B. Taylor, and J. M. D. Omlsted, and by others. 5th Edition. Octavo of 1054 pages, with 291 illustrations, including 9 colored plates. St. Louis, The C. V. Mosby Company, 1926. Cloth, $11.00.

Diseases of Women. By Harry Sturgeon Crossen, M.D. 6th Edition, revised and enlarged. Quarto of 1005 pages, with 934 illustrations, including one colored plate. St. Louis, The C. V. Mosby Company. 1926. Cloth, $11.00.

Local Immunization. Specific Dressings. By Professor A. Besredka. Edited and translated by Dr. Harry Plotz. Octavo of 181 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $3.50.

Actions and Uses of the Salicylates and Cinchophen in Medicine. By P. J. Hanzlik, M.D. Octavo of 200 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $3.50. (Medicine Monographs, Vol. IX.)

The Significance of the Physical Constitution in Mental Disease. By F. I. Wertheimer and Florence E. Hesketh. Octavo of 76 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $2.50. (Medicine Monographs, Vol. X.)

Mind and Its Disorders. A Text-Book for Students and Practitioners of Medicine. By W. H. B. Stoddart, M.D. 5th Edition. Octavo of 593 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $7.50.

Muscular Contraction and the Reflex Control of Movement. By J. F. Fulton, B. Sc. Octavo of 644 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $10.00.

De Lamar Lectures 1925-1926 (Johns Hopkins University—School of Hygiene and Public Health). By David Marine, and others. Octavo of 220 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $5.00.

OUR NEIGHBORS

MEASURING COMMUNITY HEALTH

A department of health deals with the health of a community as a group of persons. The standards of measuring community health are discussed in the following abstracts from an article by Dr. James Wallace of the Iowa State Department of Health in the February issue of the *Journal of the Iowa State Medical Society*.—EDITOR'S NOTE.

"A writer who occasionally amuses himself by writing on medical subjects, says that ordinary standards are often inadequate as measures of health. He says, for example, that we should judge of a person's age, not by the number of years that have passed over his head, but by the number of colds that have passed through his head.

"1. One method of measuring community health is by sickness surveys, a very good yardstick, but impossible on a large scale and confined very largely to voluntary agencies that have plenty of liberty in determining how money donated for health work may be spent, or to aspirants for college degrees that can be obtained by making surveys of this nature. We have no knowledge of any of these being made in Iowa during the present year, except in one or two circumscribed areas, and anyway if made, they would be fragmentary and partial so far as the state is concerned.

"2. Occasionally we can get a general idea of the incidence of certain of the more acute diseases by a survey of hospital records, but there are still so many of these cases, as well as of the less serious ones, treated at home that no adequate conception of health or illness can be obtained except for a very limited area.

"3. The next yardstick within our reach is that of morbidity reports, the reports of cases of disease. In Iowa as in many other states, the reporting of cases of disease, with the exception of a few diseases, has been notoriously incomplete. That we have started on a new era of improvement is evidenced by a comparison of the number of cases reported in the first nine months of 1926, as compared with a corresponding period in previous years. Formerly, it was a common occurence to find that for some diseases, a greater number of deaths than of cases were reported for the disease. For example, in 1924 for the first nine months there was not one case of tuberculosis reported, and only five for the whole year. In 1925 there were seventeen cases reported in the first three-quarters of the year, whereas for the year 1926—January to September—there are 458 cases reported. The improvement in reporting of some other diseases is equally as striking, but all this indicates that up to the present time, the morbidity reports in Iowa would be a very unreliable index by which to judge the health of the state. But thanks to the cooperation of the health officers and physicians, if a proportionate improvement continues, by the year 1927 our morbidity figures will be fairly accurate indices of the state's freedom from or infection by disease. We have always to bear in mind that it is only the notifiable diseases that are reported, so that the great numbers that die from heart disease, cancer and other diseases are never reported as cases.

"4. The yardstick we have as yet to wholly rely upon for Iowa is the mortality reports, as the Census Bureau check on Iowa figures showed the death reports to be 92 per cent or over correct. We can make a fairly accurate estimate of the number of cases of any disease if we know the exact number of deaths. as while diseases vary in their virulence from year to year, there is a fairly definite and constant relationship between the number of deaths and the number of cases. We can be pretty certain that of typhoid fever cases, one in every ten to fifteen is likely to die; for diphtheria and tuberculosis, the ratio is about the same; for scarlet fever, one in every fifty; whooping cough, one in twenty-five; measles, one in one hundred; pneumonia, one in five, and for meningococcus meningitis, one in three. Smallpox varies so much in its virulence that it is difficult to name a ratio, but it varies from one in five to one in five hundred.

"The great majority of the population in Iowa are engaged in what is regarded as a non-hazardous and a healthy occupation, tilling the soil and the business of trade. Iowa enjoys high standards of and a wide diffusion of education which should give a background for, if not an actual cultivation of habits of health. Iowa too has a high standard of wealth, the per capita wealth being higher than almost any other state in the Union. This means that the people of Iowa are in a position to protect their health and to promote it. Public health is within certain limitations, purchaseable; and as an editorial in the *A. M. A. Journal* of October 9, 1926, shows in the case of Knoxville, Tennessee, it can be purchased and it pays to do so.

(*Continued on page* 328, *adv.* xiv)

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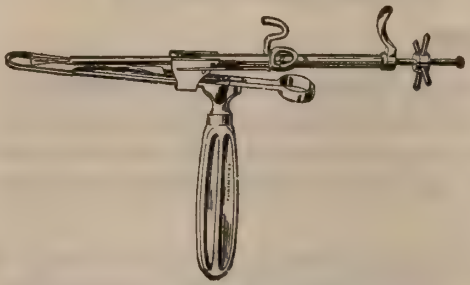

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(Continued from page 326)

Iowa's climate which is not subject to great variations and its other natural conditions are far from being unfavorable to the health of its citizens. The state has an ample food supply, that is varied enough to contain all necessary vitamines, in fact to judge by the current "surplus" wail, one would suppose that the main ailment of the state is a form of indigestion due to a too liberal supply of a certain kind of food. Let us hope that the querulous laments reported in the papers do not indicate the general outlook of the people of Iowa, for one of the important factors in preserving and promoting health is a cheerful, hopeful, fearless outlook upon the future.

"Iowa with its many natural and acquired aids for health protection has, as we see it, two or three hindrances that result in preventing this state from surpassing practically all other states in matters of health. These are the natural water supplies and the drainage of the state. The natural waterways are lined by habitations, the watersheds we possess are thickly populated and the natural fall for drainage purposes is into the source of water supplies, so that we are continually exposed to water pollution. Moreover, the lack of ready drainage of the soil means that there is always a menace from flood borne disease. The experience of this last summer is sufficient proof of this. To completely protect our water supplies will no doubt make necessary many large and small engineering projects, while the disposal of human wastes in a rural state like Iowa will probably only be satisfactorily provided for when there is a full time health officer in each county thoroughly familiar with the best types of sanitary privies or disposal systems, who can show the people how easy it is to have a satisfactory system and at how little cost it can be installed. North Carolina has within the last five years made wonderful progress in the installation of such systems, but this would have been impossible without the adoption for their counties of a full time health organization.

"This leads me to say a word about the third break in the wall of our health defense in Iowa. This, I consider, is the lack in practically every one of our counties of an ever-acting responsible organization that gets into action not merely when there is an outbreak of a disease, but is working continuously to prevent both epidemics and sporadic cases of disease. Such an organization will give attention to all forms of disease. It will not be that tuberculosis alone or heart disease or any other individual or group of diseases will be campaigned against, but all the local and general factors that increase our morbidity and mortality rates undermine our happiness and increase our

(Continued on page 329—Adv. xv)

(*Continued from page* 328)

economic burden will be attacked, and if not completely eradicated, the number of sufferers will be reduced and the happiness and health of all conserved.

"There is the incaluculable element in health advancement as evidenced by the 'flu' epidemics, but in general we can make forecasts of the incidence of disease more accurate than the federal forecasts for the weather. So that in a county, if we have the machinery for health protection, we can work to avert or minimize the waves of disease that we are certain will reach our shores. Let us, therefore, provide the machinery."

KINDNESS TO DOCTORS

The *Nebraska State Medical Journal* for March contains the following story which New York physicians may add to their armamentarium.—THE EDITOR.

One winter night, when the ground was covered with sleet, and the rain was freezing as it fell, the old doctor received a very late call from a family living way on the other side of the city. It was after one o'clock when he left home, and his horse—this was in the old days—slid all the way to the patient's house. He got there about three o'clock, and found that a girl in the household had a severe cold. It was nothing dangerous.

"How long has she had it?" asked the doctor.

"Three days," answered the mother.

"Why didn't you call me in the daytime?" asked the doctor.

Then came the answer, which made this the favorite story of the Medical Society for many, many years:

"We are poor people, and we aren't able to pay very much, so we thought we would call you when you weren't busy."

RESPONSIBILITY FOR PUBLIC HEALTH

The question is often discussed as to who is responsible for the practice of public health as distinguished from private practice. The question is well answered in the February 12th issue of the *Weekly Health Review* of the Department of Health of the City of Detroit. The article follows.—EDITOR'S NOTE.

Health Departments or some other properly constituted agencies must be responsible for the safety and purity of water and food supplies and the safe disposal of such wastes as might endanger the public health. They are likewise entrusted with the institution of such other measures as will tend to prevent the occurrence or spread of communicable disease,

(*Continued on page 330—Adv. xvi*)

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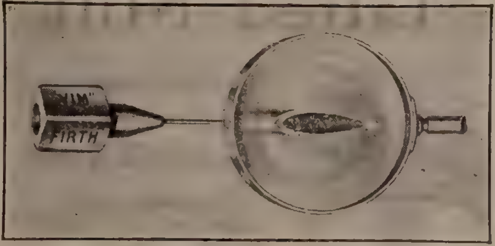

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(*Continued from page 329*)

including quarantine, isolation, and immunization. There is some question as to how far they should go in the actual administration of immunization but there seems no doubt but that in the face of a threatened epidemic they are justified in offering public immunization. These are all things over which the individual has little or no control except immunization.

Does public responsibility cease with the control of these things over which the individual has no control? Officially, we believe, the responsibility ends here, except for the provision of medical and material relief for the indigent; yet the field of public health is far broader than this. The control of these things will tend to maintain the public health at its present level and prevent further deterioration, but will not to any appreciable extent improve its present status. Public health endeavor of today includes not only the prevention of disease, but also the building up of positive robust health. To bring about any progressive and permanent improvement in public health there must be a course for school children in the fundamental principles of good health, and more universal acceptance and practice of prenatal care, regular medical attention for well babies, the development of proper mental attitudes among babies and pre-school children, regular dental care, periodic physical examinations for young and old, and the principles of personal hygiene, including regular hours, for sleeping and eating, a well balanced diet, and exercise in the direct sunlight.

With the exception of the course in health for school children, which obviously must be supplied by the community, these things may be procured by the individual from his private physician and dentist. The private physician and dentist are doing prophylactic work and are in a position to do a lot more of it. The difficulty has been and is that the people as a whole are not sufficiently well acquainted with the very real benefits to be derived from scientific advice on these subjects to avail themselves, except in isolated instances, of this type of service. This Department, therefore, hopes to create a more universal demand for scientific advice as to how to keep well and healthy. Eventually it is to be hoped that the private physician will become the health officer for his clientele, not only preventing disease, but building up positive robust health through scientific advice as to habits of living.

THE WOMAN'S AUXILIARY

The Journal of the South Carolina Medical Association for January contains an account of the recent meeting of the Woman's Auxiliary of the Southern Medical Association in Atlanta.—EDITORIAL NOTE.

"The opening session of 3,000 doctors assembled in the Auditorium Armory was interesting. A plentiful sprinkling of doctors' wives was apparent in the vast audience.

"The first business session of the Auxiliary members in the Academy of Medicine, 32 Howard St., was well attended. Your President and Delegate, Mrs. Carl B. Epps, were invited to be present at the Georgia Executive Board meeting. We heard splendid accounts of health work being done in our sister State. The wife of Gov. Walker, (a physician) who had lost a child with diphtheria, was instrumental in having a law passed whereby groups of children, as many as 200 in the same communities, were inoculated with toxin-antitoxin. Milk inspection, water analysis, hygeia distribution and many activities were reported by the various committees.

"The business meetings were filled with interesting reports from all the Southern states. Texas especially is forging ahead and setting an example worthy to be followed by the states where the work is new. One was much impressed by the zeal and interest displayed by the Auxiliary members and the intelligence they brought to bear on the problems confronting the medical profession. The American Medical Association has asked the Auxiliary to do one big piece of work, in placing the hygeia magazines in all schools, homes and libraries. Its purpose is to give authoritative advice on all matters pertaining to right living and healthful thinking.

"The social features of the convention were delightful. The 250 members of the Fulton County Auxiliary were ideal hostesses, planning everything for our comfort and pleasure. The Courtesy Committee called at the hotels and left flowers in the guests' rooms. The Transportation Committee had cars waiting to convey us to every social function. Tuesday, a luncheon given in the beautiful Atlanta Woman's Club was a feast of wit.

"The banquet at the Biltmore Hotel that evening was a brilliant affair. Fifteen hundred guests sat down to a sumptuous repast. Flower laden tables and gorgeously gowned women created a scene of fairy-like beauty. Mrs. Allen Bunce proved a capable and charming toast mistress. A program of aesthetic dancing and music followed. The Georgia Tech quartette delighted their hearers with several selections and encores.

"Wednesday a musicale at the Piedmont Driving Club and tea afterward gave the guests an opportunity to become acquainted Mrs. Charles E. Dowman, a South Carolina artist, gave a piano recital of Handel and Scarlatti numbers. Mrs. Shallenberger in native costume, sang a group of Spanish songs. An eminent 'cellist assisted.

"Wednesday evening we attended the auditorium exercises (had the pleasure of seeing our friend, Dr. Horsley of Richmond, installed as the new president of the Southern Medical Association) and the President's ball which followed. We met many South Carolinians in the vast crowd. There ended successfully the second annual meeting of the Woman's Auxiliary to the Southern Medical Association.

"South Carolina's report and especially the work accomplished toward the Sims Memorial was received with interest. Many requests for information concerning this great physician were answered. Printed pamphlets were distributed among the delegates setting forth his glorious achievement for womankind.

"We returned filled with inspiration to work for a more complete organization so that South Carolina may take her rightful place in this great movement

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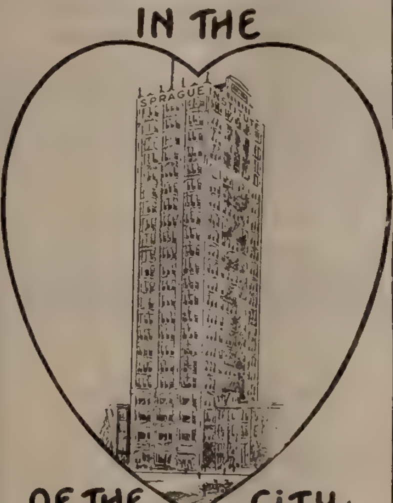

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THE NURSING SCHOOL OF YALE UNIVERSITY

The February issue of the *Illinois Medical Journal* has an editorial on the Yale University School of Nursing from which the following excerpts are taken. —EDITOR'S NOTE.

"To Yale University, pioneer in education in this country, must be given a fresh laurel. This university has a school to train nurses.

"From this school it seems as if relief might be expected in the nursing system that has become so well nigh impossible for either practitioner or patient to handle. The over-trained nurse has long been a thorn in the side of self-respecting physicians, and the overpaid and underworked nurse is beyond the reach of the great bulk of citizens.

"This school may be the wedge with which the present nursing problem may be brought to some sort of compatible balance with existing circumstances as to sick persons, incomes, duties and hire.

"Only too often does a doctor meet with the need of a nurse to which the retort courteous from his patient, is like the housewife who, quoting from the *Boston Medical and Surgical Journal* remarked, 'But I can't have a nurse, doctor, I'm too sick to look after her.'

"Only too true is the fact that in many instances the trained nurse has come to regard personal service for her patient as beneath her dignity and below her personal standing. High standards for nurse-students has had something to do with this. Not all responsibility can be laid there, nor can any one excuse the American spirit of progress and desire for a safe-guarded old age, for making of the nursing profession what is really a cut-throat job where the patient is concerned.

"Rapidly the high cost of elaborate training is limiting trained nursing to wealthy private patients, in their homes, and to institutions for the sick and convalescent; in fact, the entire trend of the overtrained nurse is institutional. If an executive position is possible, so much the better. The personal love of individual care of the sick seems to have gone out with a horse and buggy.

"Leaders in the nursing profession should take heed before the 'goose that lays the golden eggs' meets an untimely death. Conditions are intolerable in the way of having some one take care of those who are ill at a price that the sick can pay, instead of at the present prohibitive rate in Illinois and many other states. The school at Yale University is vivid writing on the wall. What this institution has done, others are going to do. Being affiliated with an institution of the high standard of Yale University will leave the nurses trained there free from the criticism attaching to the 'mail-order nurse.'

"And here is where public opinion and the bulk of the medical profession will stand to the last ditch by capable, willing, careful women who are not afraid to do what a plain nurse ought to do. Americans have a mania for organizing and often organization out-does itself. This would seem to be about what has happened with the nursing profession. Keeping up the standard is an excellent motto, both by current members of an organization or by fresh applicants. But when an article becomes beyond the reach of those whom it is destined to serve, then it is time to reconstruct. When the automobile was a rich man's toy—as figuratively speaking the trained nurse is today, when it cost upwards of $100 weekly for an all time nurse—two women working at $50 each—it was a machine to be regarded with awe and wonder and envy, but not purchase. Along came Henry Ford and put a serviceable automobile on the market at a price within the income of almost the entire American citizenry. The comparison is too obvious to need comment."

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STRICTURE OF URETER: ITS ETIOLOGY AND TREATMENT*

By CYRIL KLOCK CHURCH, M.D., NEW YORK, N. Y.

From the James Buchanan Brady Foundation for Urology, New York Hospital

THE purpose of this paper is to present an analysis of 100 cases of stricture of the ureter, and to review the literature on this subject, and finally to bring the tremendous importance of this subject more forcibly before the medical profession.

Literature

Hunner[1] of Baltimore first put this clinical entity clearly before the medical profession, and he is of the opinion that focal infection is the primary etological factor. Bottomley[2] and Eisendrath[3] have written extensively on the congenital origin of strictures. Kelly[4] has stated that strictures are caused by inflammation in the ureteral wall, produced by the common cocci and the gonococcus and tuberculosis. Garso[5] states that the chief cause of stricture is the gonococcus. Furniss[6] also believes that stricture follows hæmatogenous infection, which produces inflammation in the ureteral wall. Sugimura[7] thinks that the infection extends through the lymphatics, and not along the mucosa. Necker[8] is of the opinion that infective hydronephrosis is secondary in origin. Kelly and Burnam[9] express the view that traumatic stricture often follows the injuries of labor and surgical operations, especially the Wertheim operation. Cuthbertson[10] states that injury to the ureter is certain in vaginal hysterectomy. Morris[11] collected reports on 5 cases of gun shot and stab wound injuries of the ureter. Hunner refers to the work of Proksch[12] when he mentions that lues ought to be kept in mind. Carey and Laird[13] describe cysts in the ureter, and these might act as obstructions, if not actually being classed as strictures. J. M. Baker[14] also strongly favors focal infection. Thomas and Mellen, in a paper entitled, "Bilateral Cystocoele of the lower end of the Ureter," come to the conclusion that focal infection is at times the causative factor. James Israel[15] concluded that most cases of essential haematuria showed organic changes in the kidney or capsule or an undue mobility. Kretschmer[16] proved that kidney specimens from cases diagnosed as essential haematuria had definite nephritic or nephritic-like changes. Strauss[17], coworker of Israel, believes that gross bleeding takes place when the intrarenal pressure is greatly increased, which occurs when the kidney capsule is very rigid, or when there is compression on the renal pedicle. Hunner demonstrated stricture in 18 cases of essential haematuria. Jehle[18], Meyer[19], and Nassau[20] are agreed that orthostatic albuminuria is due to lumbar lordosis, producing compression of the inferior Vena Cava and consequently renal stasis. Sonne[21] catheterized 11 such cases, and in all only the left side was involved. F. C. Rosenow and J. G. Neisser[22] seem to have established the causal relationship between kidney stones and streptococci. Braasch[23] believed that the dilatation of the renal pelvis, in cases which had considerable infection, was not due to obstruction in the ureter, but was due to changes in the tissues and consequent retraction of their walls. O. S. Fowler[24] mentions the possible importance of stasis in the etiology of stone.

The symptoms of stricture according to Hunner are:

1. Pain: the most universal symptom, and any place from the disphragm to the ankles.
2. Bladder symptoms occurred in 71 per cent of cases.
3. The urine may be quite negative.
4. Fever occurs whenever the stricture closes and even if there is no infection.
5. Gastro intestinal symptoms are common, and vary from slight aversion to food to extreme vomiting, gaseous distension, rectal tenesmus, pain just before or during stool, and even severe mucous colitis.
6. The milder degrees of the uremic state, *e.g.*, headache.

J. M. Bartrina[25] states that disturbances in the urethra and prostate are common with stone in the kidney or ureter; also intestinal disturbances from simple constipation to pseudo-occlusion and spasmodic pains. He also observes that the injection of an anodyne per rectum will better relieve a kidney colic than its administration by any other method. Osley Grant[26] states that the more typical is the classical clinical picture of stone the less certain it is that the condition is stone, and the more probable it is that it is stricture. D. W. Tovey[27] believes that palpation of the ureters should be part of every vaginal examination, and says that Pawawolick in 1880 catheterized the ureters by using the ureteral ridges on the anterior vaginal wall as guides. Branford Lewis[28] draws attention to what he calls a new sign in the diagnosis of ureteral stone: a metal dilator is inserted into the ureter and the stability of the former is sufficient to push the latter from its normal position, and so a shadow, which is in the ureter will move with it, and one which is not will not. This makes it easy to detect a pheblolith. C. J. Crowell and Raymond Thompson[29] give a good technique for the removal of ureteral stone without operation. Coffey's[30] work on dogs and Charles Mayo's work on man, would seem to indicate that there is a field for colon implantation of the ureter in cases where the stricture is near the bladder, and of such a nature that open operation is required. F. W. Braasch in August, 1920, wrote concerning the contraindication for operation for stone in the ureter and kidney, and makes the general observation, amid much good and important detail, that 75 per cent of stones will pass spontaneously, and that unless pain is excessive one should wait at least 6 months before operating. Judd[31] states that an inflammation producing a true stricture requiring operation is not common. W. H. Battle[32] gives a good technique for the removal of stone from the pelvic portion of the ureter by a method which combines the intra and extra peritoneal approach. O. S. Lowsley[33] gives a good technique for the removal of stone from the lower portion of the ureter and in the male only and by the perineal route. R. L. Latchem[34] makes it quite plain that complete obstruction in the ureter does produce diastrous results, and on this subject he quotes Caulk, as having shown that if the ureter is tied off by a plain cat gut, then the cat gut is absorbed in three weeks, and the lumen reopens in from six to eight weeks, but that in the meantime the kidney, unless it has been nephrostomized, would be past the point of function, and he states that Johnson before the work of Caulk had shown that if the obstruction in the ureter does not last more than two weeks function might possibly return. F. T. Lau[35] in writing on recurrent calculi advises that the chemical composition of stones be studied with a view to arresting faulty metabolism, and correcting if necessary the urinary reaction; but he also advises the removal of focal infection.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

EMBRYOLOGY

That ureteral stricture is a very probable cause of diverticulum of the ureter, is well brought out by Hale and Geldhern[36], who reviewed the literature on the subject of diverticulum and who have done very considerable work on the subject. That, however, it is not the only cause of diverticulum is supported by the embryology of the formation of the ureter, and this these authors admit. On the embryology of the ureter, and its possible relationship to the formation of ureteral diverticula, these authors state that the anlage of the ureter and kidney appears in the fourth week, as a hollow evagination, from the dorsal aspect of the mesonephric or Wolffian duct, near its junction with the cloaca. This evagenation dilates at its extremity and proceeds to grow, first dorsad and thence cephalad along the vertebral column. The stock becomes the ureter, the proximate portion of the primitive ureter opens into the mesonephric duct at an acute angle, but when the cloaca becomes the urogenital sinus and rectum, then the mesonephric duct and ureter assume independent openings, with the ureter at a higher level. It is evident that if at the time of the development of the ureter, a secondary budding should occur, it would undoubtedly be absorbed by the bladder and either disappear or assume a separate opening into the bladder. May the present writer here note that should the latter occur, that is, should the secondary budding assume a separate opening into the bladder, here is the origin of a double ureter. Hale and Geldhern go on to say, that if, however, the secondary budding occurred after the formation of the ureter and kidney pelvis and after these structures had assumed their approximate anatomical positions, such a budding might in later life assume the appearance of a diverticulum: it could be likened to an abortive attempt at the formation of a second ureter. They say, however, that this is unlikely in the case they present, as there was found a stenosis of the ureter just below the opening of the diverticulum, and they argue that the presence of two distinct abnormalities in such close relation must necessarily be more than mere coincidence, and that one is justified in concluding that the one is the cause of the other.

METHOD USED IN MAKING A DIAGNOSIS

1. History: This was always very carefully made and more carefully considered, as it very obviously should be, and especially in cases with obscure abdominal pain.

2. Physical examination: This should include careful palpation of the kidneys bimanually and of the ureters, which latter structures should also be investigated very carefully per rectum and vagina.

3. Cystoscopy: The detection of points of nar-

rowing by means of ureteral bougies and catheters.

4. Pyelography: This latter method we have found very satisfactory for demonstrating stricture of the ureter.

5. The relief of symptoms: By treatment of the conditions, and this relief being obtained when all other means had failed to give relief.

6. The reproduction artificially by means of bougies, catheters, or by pyelography of pains similar to those of which the patient originally complains.

In discussing pyelography, let me say in answer to those who maintain that many of the constrictions seen in the pyelogram are merely due to spasm of the smooth muscle of the ureter, which we all know may occur at any time, and especially under stimulation, that this theory of the production of the constricted area cannot be held when such constrictions appear in 4 or 5 consecutive pictures, as any spasm surely would not be maintained at exactly the same place for any length of time. Wax tipped catheters were not often used in this series as pyelography was depended upon.

Discussion of Cases Presented

The following is an analysis of 100 cases studied in this series. As to appearance it may be stated that 2% occurred in the second decade of life, 23% in the third, 33% in the fourth, 22% in the fifth, 13% in the sixth, 4% in the seventh, and 3% unstated. The youngest age in which the condition occurred was 14 years, and the oldest 71 years. The average age was 37½ years.

No definite statement could be made as to whether or not occupation influences, the incidence of ureteral stricture, inasmuch as it was only stated in 12% of the cases, but it is to be noted that the recorded 12% all had sedentary occupations.

Males in this series represented 65% of the cases and females 35%, so that it may be said that the condition is at least as common in males as it is in females.

With regard to race it may be said that 18% were of North European extraction, while 15% came from countries surrounding the Mediterranean Sea; 67% were born in the U. S. A.

Fifty per cent of the cases were married.

There were 93 cases admitted to hospital. The duration of the longest case was 129 days, but this included 6 different admissions. The shortest stay in hospital was 1 day. This represented 23 of the cases. And so the average stay in the hospital was 10 days, and this only if one includes 2 very long cases. If these latter are excluded, the average stay in hospital was 7 days.

The family history was negative in 84% of cases, and positive in 16% of cases. Six of these latter had had kidney trouble.

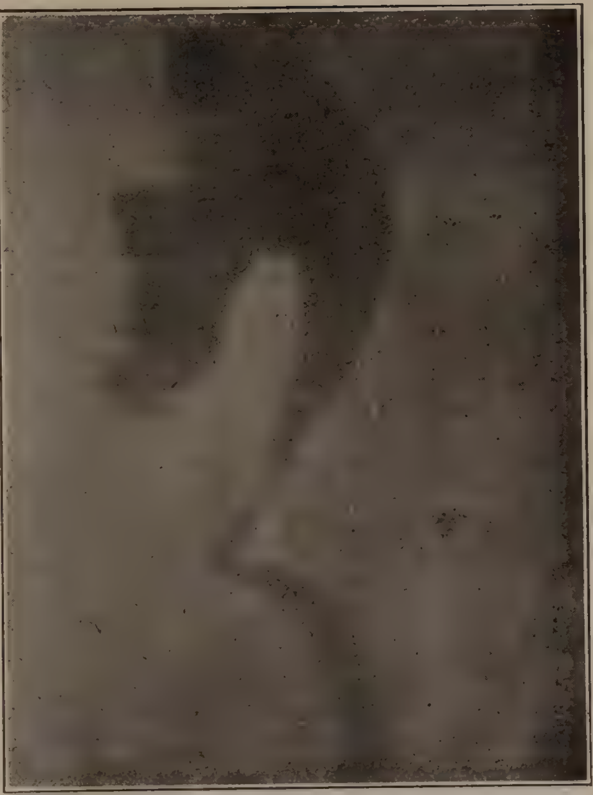

Fig. 1—Case showing kink and stricture, and moderate hydronephrosis.

The past personal history was negative in 42% and positive in 58% of the cases. Thirty-one cases had had previous operations. Twenty-six cases had had previous fevers. Seven cases gave previous history of pain being the only symptom. Two cases had pyorrhœa. One case had suffered from blurred vision. One case had had a left hemiplegia. Six of the cases gave a history of having had previous subjective troubles, *e.g.*, vertigo. Two cases had suffered from eructations of gas. Fifteen of the cases had had previous gonorrhea, and two of the cases gave a history of leues. Two cases had passed stones per urethram and two had had haematuria, and there were two cases of frequency.

Of the 31 cases, which had previous operations, four were for pyelotomy, and two for nephrectomy. Of the two latter it may be said that had there been proper diagnosis sufficiently in advance at least two kidneys would have been saved. There was one case, which had had a herniaectomy, and this of course warrants no comments. There were seven cases, which had had pelvic operations, the exact nature of which it was impossible to ascertain, but it is to be presumed that they were undertaken and in fact in some of the cases this is surely certain, to relieve symptoms, which were really due to uterteral stricture. The patients did not get relief in these cases, and so it is fair to assume that they represented errors in diagnosis, as is also more than probably a fact in 10 other cases, which had had their appendices out. Two cases had a fistula in ano. And one case had had rectal abscess. One case had had a tonsillectomy, and these tonsils were no doubt removed because they were infected. One case had had a cholecystectomy, which latter case it is not impossible to suppose may also represent an error in diagnosis. There were two cases which had had operations for bladder tumor. There was one patient who had had a goitre operation, which was performed to rid the patient of nervousness, which it is more than fair to presume, in the light of the later history of the case, may have at least been accounted for in part by poor kidney function. There were two surgical conditions diagnosed but not operated upon, viz., one case of right inguinal hernia and one case of appendicitis.

Of the 26 cases which had had previous fevers, there were two cases of malaria, five cases of tonsilitis, four cases of influenza, one case of cholera, two cases of typhoid, one case of dysentery, two cases of diphtheria, four cases of scarlet fever, two cases of measles, two cases of mumps and finally one case, which was described as having had a "bad cold." It will of course occur to anyone that all of these cases just quoted are potential sources of focal infection.

The present illness: The character of the onset in 37% was sudden in nature, and gradual in 63% of cases. Pain was the most universal symptom, having occurred in 90% of cases; in 10% of cases there was no paid. Considering the duration of the pain in those cases in which it existed, it may be said that in 10 cases it lasted from one to ten days; in 10 cases from two to six weeks; in 23 cases from one to ten months, and finally in 47 cases from one to thirty years. In considering the location and character of the pain, it may be observed that in 64 cases it was in the lumbar region, and that of these 26 cases had sharp pain and 38 dull aching pain. Fourteen of the cases had abdominal pain, eight of these having had sharp pain and six dull pain. One case experienced pain above the crest of the ilium; four cases had pains in the groins. Of these two being sharp and two dull pains; eight cases had pains along the course of the ureters. Four of these having had sharp pain and in four the pain was dull. Lastly two cases complained of supra pubic pain. Here it may be remarked that in Hunner's cases pain too was the most common symptom, but that in most of his cases it occurred chiefly in the broad ligament area, which of course corresponds roughly to the lower portion of the ureter.

Seventy-one per cent of Hunner's cases presented bladder symptoms, and this figure is taken from his paper on "The Essential Hæmaturias." Sixty per cent of the cases in this series presented bladder symptoms, and the details are as follows: There was frequency in 47 cases, nocturia in 29, dysuria in 35. Haematuria in 20, strangury in 4, and incontinence in 1. In 6 cases haematuria was the chief symptom. In one case it was the only symptom, and in another case it was the only symptom, but in this latter was very severe. In one case the haematuria was terminal. In one case it was very slight. In one case it was very slight and only occurred once. In one case the hæmaturia had a duration of three years, and in one case the bleeding was mostly at night. In one case dysuria was the chief symptom, and in 9 cases frequency was the chief symptom. From the above it is fairly apparent that these symptoms referable to the bladder are fairly constant and may be severe; also of course there may be all kinds of combinations of these various uninary symptoms.

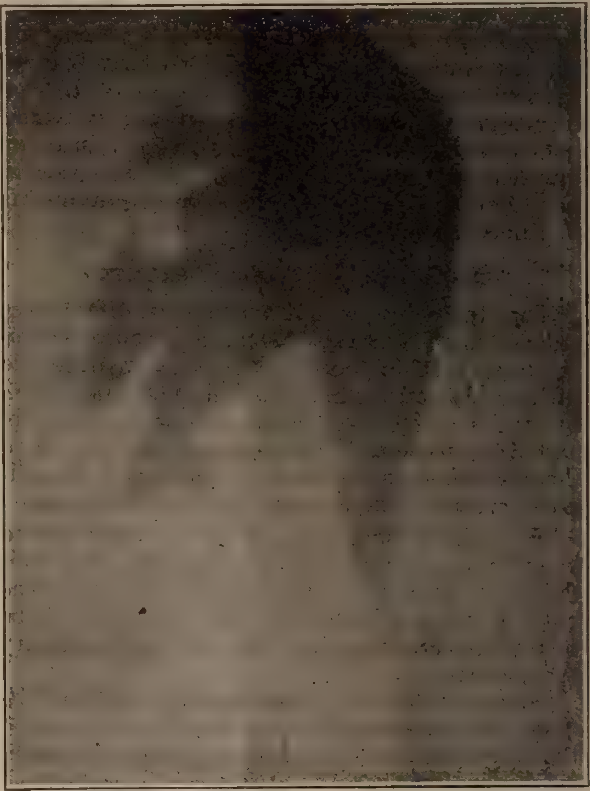

Fig. 2—Case showing stricture of the ureter and large hydronephrosis.

Five cases presented symptoms referable to the nervous system; four of these were very nervous and one of them slept very badly.

Gastro intestinal symptoms were present in 21 cases, thirteen having had nausea, two vomiting, two eructations of gas, two anorexia, and two flatulence.

Three cases had lost weight, three cases were having chills, and one case had passed a stone; these latter of course coming under the heading of miscellaneous symptoms.

Physical examination: Eighty-eight per cent of the cases appeared to be in good health, 4% appeared to be in fair health only, and 7% certainly seemed to be in very poor health. One case had disturbance of endocrines.

Temperature variations: There were 27 cases in which the temperature ranged about 98 degrees Fahrenheit; 26 cases ranged about 99 degrees F.; 16 cases ranged about 100 degrees F.; 6 cases about 101 degrees F.; 7 cases about 102 degrees F.; 8 cases about 103 degrees F.; 8 cases 104 degrees F.; 2 cases 105 degrees F. One of the 7 cases with a temperature of 102 occurred post operatively; and also one of the cases with a temperature of 103. One of the cases with a temperature of 103 occurred after pyelogram. Of the cases which had a temperature of 104, one occurred after pyelogram, one post operatively, and two had chills, and one had chills for four days; two of the cases with a temperature of 105 also had chills.

An examination of the head and neck showed positive findings in 35% of cases. One case showed great pallor. One case had the sense of hearing diminished by about 25%, and in one case it was diminished in the right ear by the same per cent. In one case the posterior nodes were palpable; in one case the thyroid was bilaterally enlarged; in 16 cases the teeth were in fair condition and in 6 cases they were in very bad condition; in three cases there were extensive pyorrhoea; and in three cases all the teeth had been extracted; also there were two chronic cases of follicular tonsilitis. It will be seen that any one of the last 30 cases mentioned are very probable sources of focal infection.

Three cases had the soft systolic murmur at the apex of the heart, but the murmur was not transmitted to the axilla. There was one case of soft systolic murmur at the apex which was transmitted to the axilla. In all these the lungs had negative findings. There was one case in which there was a moderate babinski, and one case in which the knee jerk was absent, and another in which this latter reflex was hard to elicit.

An examination of the abdomen showed that in two cases the kidneys were palpable on the left side, and in four cases palpable on the right side, and one case palpable on the right and left side. There were four cases in which the kidney seemed to be tender by palpation anteriorly on the left side and five cases in which they were tender on the right side, and one case in which tenderness was demonstrated on the right and left side; in no case the kidney was both palpable and tender on the left side, and there was only one case in which it was both palpable and tender on the right side, and also there was only one case in which they were both palpable on both right and left side. Of the kidneys which were palpable on the right side one was very low and one was very large. So it will be seen that in all there were 19 cases in which the kidney or kidneys were either palpable or tender or both. There were 11 cases in which tenderness was demonstrable in the right costo-vertebral angle, and 5 cases in which the same could be demonstrated for the left side, and there was one case in which there was costo-vertebral tenderness on the right and left side; in all 17 cases. There were 5 cases in which there was tenderness in the suprapubic region and there were two cases in which tenderness could be elicted along the course of the ureters; a total of 7 cases. If these totals are added it will be seen that in 43 cases a kidney condition was demonstrable by means of simple physical examination. The recti muscles were rigid in two cases on the left side, and in the upper part of the abdomen. In two cases they were tender. In no case were they rigid and tender on the upper left side. On the right side the upper right rectus was rigid, in four cases it was tender, and in two cases it was both rigid and tender. Tenderness only could be demonstrated in the region of the lower rectus in 5 cases on the left side and in 2 cases on the right side. If we add these latter we have a total of 18, which figure added to the figure 43, which represents the kidney condition demonstrable by physical examination, gives a grand total of 61

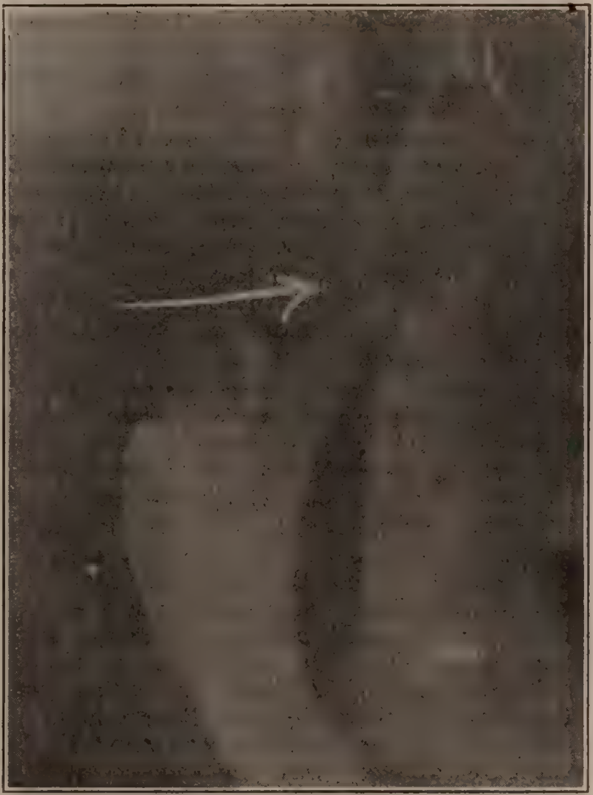
Fig. 3—Very definite case of stricture in the series.

cases in which there were positive findings in the abdomen.

The blood pressure records were all within normal limits.

Urinalysis: The reaction was acid in 80% of cases and alkaline in the remaining 20%. The specific gravity was 1000 and over 16%, 1010 and over in 35% and in the remaining 49% it was 1021 and over. There was a trace of albumin in 41% of cases and a considerable amount in 2% of cases, making a total of 43% which had albuminuria. In no case was there demonstrated sugar in the urine. Thirty per cent of cases had a moderate amount of pus, and 7% of cases had a considerable amount, making a total of 37%, which showed pyuria. Two per cent of cases showed a slight amount of blood in the urine and 25% a considerable amount, making a total of 27%, showing haematuria; 20 of these cases had gross haematuria. There was only one case in which casts were demonstrated.

Rectal examination: In 65 males there were only 5 cases in which the prostate was abnormal; in one case it was twice normal in size, hard and fibrous; in one case it was twice normal in size and boggy, and there was a residual urine of 5 c.c.; in one case it was slightly enlarged; in one case it was boggy, and finally there was one case in which it was enlarged and the seminal vesicles were also enlarged.

Cystoscopy: Twenty cases showed cystitis. There were 7 in which there was trabeculation; 9 cases showed prostatic intrusion, and there were two cases which had stone in the bladder. The ureter mouths showed positive findings in 21 cases on the right side. In 15 cases they were inflamed or congested. In 3 cases they were difficult to find. In one case a number 3 catheter only was admitted. In one case pus was seen coming from it, and in one case there was a small ureterocoele. The left ureter mouths showed positive findings in 17 cases. In 11 there was congestion. In three they were hard to find. In one only a number 3 catheter was admitted. In one a clot of blood was seen hanging from it, and finally in one case there was a large ureterocoele. In this series there were no strictures of the female urethra recorded.

Catheterization of the Right Ureter. In 80 cases the catheter passed to the kidney pelvis on the right side. In 73 cases a number 6 catheter was passed. In 6 cases a number 5 only, and in one case only a number 3 F. could be passed. In 2 cases obstruction was met 4 cm. up and was not passed. In one case obstruction was met 5 cm. up and could not be overcome by a number 5 F. catheter. In one case obstruction was met 6 cm. up and was not passed by a number 4 F. catheter. In 4 cases obstruction was met 10 cm. up and was not passed. In 4 cases there was an impassable obstruction 15 cm. up and in another case the same was encountered 22 cm. up the ureter. In 3 cases the only recorded description is that they are strictured. One case is described as difficult to catheterize. In two cases there was obstruction very near the mouth and it was not passed. Finally there was one case in which the right kidney had been removed. In 78 cases a catheter was passed to the kidney pelvis on the left side. In 64 of these a number 6 F. catheter passed and in 10 of these cases only a number 5 F. could be made to enter the pelvis. In 2 cases only a number 3 was admitted to the kidney pelvis. In 2 cases obstruction was met 2 cm. up and was not passed. In one case it was met 3 cm. up and was not passed. In one case 5 cm. up and not passed. In 2 cases 6 cm. up and not passed, and in one of these latter a number 4 F. catheter was used. In 2 cases there was impassable obstruction 10 cm. up and in one of these a number 3 F. catheter was used. In 2 cases obstruction could not be overcome 15 cm. up and in one of these a number 5 F. catheter was employed. In four cases obstruction was not overcome after passing a catheter up 23 cm. In one case there was an impassable obstruction 25 cm. up. In 2 cases it is simply recorded that the ureter is strictured. In 5 cases the left ureter was not catheterized.

Fig. 4—Case 94 in the series. Details appear in body of paper. Double pyelogram.

The following is an example of a case in which there is a demonstrable difference in the phenolsulphone-phthalein test and in the grams urea per litre test, and adversely on the side which was the seat of chief complaint.

In case 52 in which the chief complaint was that of right sided pain and in which subsequently a stricture on that same side was demonstrated, a number 6 F. catheter passed to the kidney pelvis on both sides, and the appearance time of the phthlein test was three minutes on the right side and two minutes on the left side. That is it took one minute longer to appear on the affected side; 6 per cent of dye was secreted in 14 minutes from each side. The grams urea per litre was 10 for the right side and 12 for the left side; that is the left comparatively good side put out relatively more urea than the affected side.

I have records of 21 other cases in which the same deficiency of the affected side could be further detailed and in which subsequently stricture was proved to exist on the side mostly complained of, but let the above example suffice. In the remaining 78 cases of the series the difference is not sufficient to warrant any dogmatic deduction. In only 21 cases did it check up.

Location of the Stricture in the Ureter. There were 11 cases of stricture of the upper ureter, 5 occurring on the right and 6 on the left. One of these cases on the right side had a very definite stricture in the lower third of the ureter as well, and another one at the meatus. One of these cases on the left side also had another one in the lower third 10 cm. up. Another of these where the stricture was 3 cm. below the pelvic junction, also had another stricture in the lower third 4 cm. up.

There were 4 cases of stricture at the junction of the upper and middle, third, two on the right and two on the left side. In one case on the right side there was a second stricture in the lower third. In one of the cases on the left side, there was a second stricture at the brim of the pelvis.

There were 6 stricture in the middle third of the ureter, 4 on the right side and 1 on the left; then there was 1 case in which a definite stricture was proved at autopsy. One of the cases on the right side also had another stricture in the lower third at the level of the brim of the pelvis.

Stricture at the junction of the middle and lower thirds, there were 3 cases demonstrating a lesion at this point, and in one of them the stricture extended from the upper level of the fourth to the upper level of the fifth lumbar vertebra.

Stricture in the Lower Third. There were 21 cases showing stricture in this location, 12 on the right and 9 on the left side. Six of these were at the brim of the pelvis, 4 on the right side, and 2 on the left; 1 on the right side was very definite and there was another at the meatus, and also there was one in the upper third of this same ureter.

There was 1 case simply described as multiple strictures right and left, and also a second case likewise described. There were 3 cases described as having several strictures on the left side. There was 1 case which had both ureters strictured. There are 2 other cases, which can be described as generally constricted.

The above is an analysis of the strictures occurring in 42 cases in which these conditions were definitely demonstrated by pyelogram, except the 1 case which is demonstrated by autopsy.

There were large kidneys in 9 cases, 5 on the right, 1 on right and left side, and 3 on the left side. There was ptosis in 20 cases, 14 on the right side, 5 right and left side, and 1 on the left; 2 of these cases were very marked. There was hydronephrosis in 39 per cent of cases. It was slight in degree in 17 cases, 10 being on the right side and 8 on the left side. The extra case noted is due to the fact that hydronephrosis existed in one case on both right and left side. The hydronephrosis was moderate in 7 cases, 4 on the right side and 3 on the left. There was marked hydronephrosis in 12 cases, 6 on the right and 6 on the left. In 2 of these cases the pelvic content was from 18 to 24 cc. on the right side. In 2 of

Fig. 5—One of the cases showing stone, kinks, and strictures and largo hydo-pyo-nephrosis.

these cases the pelvic content was from 24 to 30 cc. on the left side. In 3 cases there was slight fraying on the left side.

There were filling defects in 1 case both on the right and left side. Relaxed ureters existed in 9 cases, 7 on the right and 2 on the left side. There were 2 cases exhibiting the anomoly of double pelvis on the left side. There was 1 case in which the pyelogram was unsatisfactory. In this series 14 kinked ureters were found, all of which were in the upper half of the ureter, 9 on the right side and 5 on the left. There were 5 cases, which showed angulation and all on the right side. There were 22 cases showing a dilated ureter, 14 on the right side and 8 on the left. There were 6 cases diagnosed as stones, 5 of which really were stones, 2 on the right side and 3 on the left, the remaining one really turned out to be a tumor, which was seen at operation. One of these stone cases existed on the right and left side, and the stones were multiple; 2 years later there was no evidence of any stone. In another of these cases the stone was just inside the ureteral orifice and was the size of an olive pit. There were 10 cases that had no X-ray at all. There were 9 cases in which the X-ray findings were negative.

The Microscopic Examination of Ureteral Specimens. In 81 cases they were negative. In 19 cases they were positive, and of these latter 10 showed pus, 9 blood and 3 casts.

The Chief Complaint. In 84 cases the chief complaint was pain. In 9 cases it was frequency. In 1 case it was dysuria, and in 6 cases it was hæmaturia.

Culture on Ureteral Specimens. There were 21 cases in which cultures were taken; of these 9 cases were negative on both sides, 4 cases were positive for B. coli; 1 case the B. fluorescens on the right side and negative on the left side; 1 case was negative on the right side and gave B. fluorescens for the left; 1 case gave B. coli and staphyloccus albus on both sides; 1 case was negative on the right side and B. coli on the left; 1 case B. coli on the right side; 2 cases negative on the right side and B. pyocyaneous on the left side. In Hunner's second group of fifty cases cultures were taken in all cases, and of these 16 per cent were infected with colon bacillus and 8 per cent were bilateral.

TEN CASES WHICH CAME TO OPERATION

Case 21. Right ureterotomy for stricture.
Case 25. Nephropexy thickened ureter; no stone.
Case 29. Right nephrectomy: disorganized kidney.
Case 31. Left ureterotomy and pyeletomy: stone.
Case 35. Left nephrectomy: pyonephrosis.
Case 37. Right nephrectomy: tumor.
Case 41. Left nephrectomy: inflammatory.
Case 58. Ureterotomy and obstruction overcome by passing bougie to bladder.
Case 94. Two nephrotomies, right and left, at intervals; two pyelotomies, right, for stone, six months after last operation, plain X-ray showed no stone.
Case 50. Double decapsulation.

One case advised to wear a belt and to have nephropexy later if necessary. The patient was also to have dilation of the ureteral stricture.

In 90 cases dilation only was advised, followed by lavage in some instances.

Case 21. Age 26 years, born in U. S., married, male.
Diagnosis: Stricture right ureter, 16 days in hospital.
Family History: Mother had kidney trouble.
Past History: Negative.
Present History: Dull pain in the right kidney region, duration 4 years.
Symptoms: Frequency, nocturia and dysuria.
Temperature: 98 to 102 degrees F.
Physical: Negative; appearance good.
Urine: Negative.
Cystoscopic: No. 6 F passed obstruction, 15 cm. up, and then to pelvis.
P. S. P.: Negative.
Microscopic: Negative.
Culture: Not done.
X-ray negative for stone, no pyelogram.
Treatment and Operation: Right ureterotomy. Stricture in lower part of ureter incised and sutured.

Case 25. Age 49, female, housewife, Russian and a widow.
Diagnosis: Congenital malformation of kidney (congenital stricture). 25 days in hospital.
Family History: Negative.
Past History: Negative.
Present History: Dull ache in small of back for 15 years; exercise increases pain.
Urine: Negative.
Physical: Some bad teeth; right kidney easily palpable, floating enlarged and not very painful.
Cystoscopic: Negative.
P. S. P.: Right, 10%; left, 8% in 10 minutes.
Microscopic: Negative.
Culture: Negative.
X-ray: Right kidney large and low; pelvis relatively large, calyces frayed and no stone.
Treatment and Operation: Right nephrectomy.
Findings at Operation: Right kidney very low and normal in appearance; ureter thickened.

Case 29. Age 51, female, Irish, married.
Diagnosis: Pyelonephrosis.
Family History: Negative.
Past History: Negative.
Present History: One year ago urinary symptoms began; frequency, nocturia, dysuria, hæmaturia and stranguary.
Physical: Some bad teeth and tender over vesical area.
Urine: Albumen + +.
Pus: 1 +.
Blood: 1 +.
Cystoscopic: Bullous oedema.
P. S. P.: Right, 3% in 10 minutes; left, 10% in 16 minutes.
Urea: Right, 4 grams per litre; left, 10 grams per litre.
Microscopic: Negative.
G. P.: Negative.
Culture: Right, B. coli; left, B. coli and B. Pyocyaneous.
X-ray: Right kidney low and pelvis distorted and whole disorganized greatly.
Treatment and Operation: Nephrectomy, right.
Findings at Operation: Right kidney low and slightly enlarged.

Case 31. Age 45 years, male, Italian, married.
Diagnosis: Nephrolithiasis, stricture of left ureter.
Family History: Negative.
Past History: G. C. as youth, 12 years ago severe pain in the left side and passed gravel, right inguinal hernia for the past 6 years.

Present History: Two months ago sudden pain on the left side radiating to testicle.
Symptoms: Frequency, slight. Dysuria: stream interrupted at times. Sense of something wrong in the bladder for the past 10 years. Flatulence and gas uructations.
Physical: Appearance good.
Temperature: 104 degrees F—chill 4 days post operative.
Teeth: Fair condition.
Slightly tender over left kidney.
Urine: Albumen trace. Pus: 7 H. P. F.
Rectal: Negative.
Cystoscopic: Negative. No. 6 F to pelves.
P. S. P. 30% 1st hour, 75% 2nd hour.
Microscopic: Negative.
Culture: Negative.
X-ray: Left kidney, stone in the upper part, large kidney and pelvis; stricture level of body of 5th lumbar vertebræ and just admits a No. 6 catheter.
Treatment and Operation: Ureterotomy and pyelotomy; stone removed and pelvis resutured. Ureter dilated with bougie.

Case 35. Age 22 years, male, Italian, single.
Diagnosis: Hydronephrosis and stricture left ureter, 21 days in hospital.
Family History: Negative.
Past History: "Flu" 4 years ago, nasal operation 6 years ago; pain left side once a week for last 4 years.
Present History: Sudden pain left side.
Symptoms: Urinary, negative.
Physical: Appearance good.
Temperature: 1 102 degrees F.
Urine: Alb. plus: pus, and blood plus.
Rectal: Negative.
Cystoscopic: No. 6 to right pelvis; obstr. 6 cm. up on left side.
P. S. P.: Left, appear 10 minutes and only trace.
Microscopic: Negative.
Culture: Negative.
X-ray: Left kidney hydrophrosis and left ureter relaxed.
Treatment and Operation: Nephrectomy, left.
Finding at Operation: Large kidney and dilated pelvis.
Exam. of Tissue: Moderate round celled infiltration in wall of pelvis and ureter.

Case 37. Age 52 years, female, Italian, married.
Diagnosis: Hyper nephroma, fibro-adenoma, 14 days in hospital.
Family History: Negative.
Past History: Hernia operation 4 months ago.
Present History: Dull backache in kidney region, right, especially for past 3 years.
Urinary symptoms: Nil.
Physical: Negative.
Urine: Negative.
Rectal: Negative.
Cystoscopic: Negative.
P. S. P.: (Right) 204 in 2 hours. Bl. and left kidney, 14% in 1st hour; 15% in 2nd hour.
Microscopic: Negative.
Culture: Negative.
X-ray right kidney, 2 small shadows, suggesting stone not seen in X-ray after kidney out. Right ureter, dilated and greatly pushed to left.
Treatment and Operation: Fibro-adenoma and looks like enlarged prostate.

Case 41. Age 27, male, U. S., single, 14 days in hospital.
Diagnosis: Ureteritis.
Family History: Mother had kidney trouble.
Past history: Good.
Present history: Five months ago sudden dysuria, frequency, terminal hæmaturia, lasted two weeks, and returned 3 weeks ago.
Urinary Symptoms: Frequency of 20 minutes, nocturia, dysuria and terminal hæmaturia.
Physical: Good appearance.
Temperature: 98 to 100 degrees F.
Teeth: Fair.
Super pubic region: Slightly tender.
Urine: Alb. trace; pus, +.
Rectal: Negative.
Cystoscopic: Bladder neck œdematous; superficial ulcer in fundus. Left orifice not distinctly seen for a time. Not catheterized at first. Finally catheterized. Catheter to pelvis.
P. S. P.: Appear in 6 minutes, left.
Microscopic: Much pus, left.
G. P. not t.b.c.
Culture: Negative.
X-ray left kidney negative, kinking at junction of upper and middle third of left ureter, which is dilated and relaxed.
Treatment and Operation: Left nephrectomy, ureter thickened, adhesions at hilus.
Examination of Tissue: Left kidney free from inflammatory exudate.
In mucous membrane of upper ureter and pelvis much lymphatic infiltration.

Case 58. Age 31, female, Russian, housewife. 35 days in hospital.
Diagnosis: Stricture of ureter.
Family History: Negative.
Past History: Negative.
Present History: Sudden and sharp pain left lumbar region 9 months ago.
Urinary symptoms: Nil.
Physical: Appear good. Temperature, 101 degrees F. Post Op. 103.6 degrees F. Tender in left sub-costal region.
Urine: Alb. trace; pus, 15 H. P. F.
Rectal: Negative.
Cystoscopic: Right 6 F. to pelvis. Left obstruction 5 cm. up and cannot be passed.
P. S. P.: Right appearance 3 minutes; 3% in 10 minutes. Left, appearance 18 minutes.
Microscopic: Pus, 2 plus, left.
Culture: Negative.
X-ray: Most Sod. Iodode returned to Bladder. Shadow in course of left ureter. Extensive pyonephrosis.
Treatment and Operation: Left ureterostomy for obstruction.
Findings at Operation: No stone, ureter much enlarged and when opened much urine escaped. Bougie passed to bladder, and overcame some obstruction.

Case 94. A. D., female, age 37, U. S.
Diagnosis: Nephrolithiasis. Stricture of ureter.
Family History: Negative.
Past History: Appendix out and uterus lifted, 1915. Left kidney stone out, 1920.
Present History:
(1) April 20th to April 21, 1922, 1 day; left pyelogram.
(2) June 17th to July 9th, 1922, 22 days; right nephrotomy.
(3) Oct. 1st to Nov. 29th, 1922, 59 days; left nephrotomy (stone filling pelvis).
(4) April 22nd to April 29, 1923, 7 days; right pyonephrosis, acute; cystoscopic, 60 cc. drained off.
(5) April 29th to May 20th, 1923, 21 days; right pyelotomy; stone in right kidney (6 stones); dilatation and lavage of 16 days since.
(6) Jan. 7th to Jan. 26th, 1924, 19 days, right pyelotomy (2 stones); stone 1 to 2.5 cm. in diameter.
127 days in all.
Pain began in left side (gradually) 6 months after operation in 1920.

Frequency: Every 1 hour for last 2 months, day and night.
Dysuria: Hæmaturia, slight.
Gastro intestinal symptoms with 1920 attack.
Physical: Fair condition but undernourished. Temperature, 101 degrees F. Rectal, negative.
Urine: Alb., trace. Pus: 2 +.
Cystoscopic: No. 5 F to pelvis, after passing whale bone catheter.
P. S. P.: June 19th, 1922, 5% 1st hour; 17% 2nd hour.
Microscopic: Pus 2 +.
X-ray: Pyelogram: April 21st, 1922. Str. upper part. Both ureters dilated and relaxed. Multiple stones in both kidneys and right kidney low. June 8th, 1924, plain X-ray, no stone.

Case 50. Age 40 years, male, U. S., 8 days in hospital, admitted July 12th, 1922, died July 20th, 1922.
Diagnosis: Acute uremia.
Family History: Unobtainable.
Past History: Unobtainable.
Present History: Pain in right side radiating to groin for 1 month.
Urinary Symptom: Slight frequency. Amount small.
Physical: Slight tenderness over kidneys.
Rectal: Negative.
Urine: Albumen trace, pus few, blood negative.
Cystoscopic: No. 5 F. 20 cm. up each side. Very slight flow of urine obtained.
X-ray: Negative.
Treatment: Operation, double decapulation July 18, 1922, 55 minutes under G. and O.
Findings at Operation: Congestion only.
Complications: Acute uremia developed 48 hours before operation and patient never came out of it.
Autopsy: Right ureter, definite constriction about middle.

CASES NOT UNDERGOING OPERATION

In 90 cases dilation only was advised, followed by lavage in some instances.

One case was advised to wear a belt to have dilation of the ureteral stricture, and to have nephropexy later if necessary.

The following are the details of six of the cases not undergoing operation.

Case 72. Age 54, female, Italian, married, 13 days in hospital.
Diagnosis: Stricture of ureter.
Family History: Negative.
Past History: Left hemiplegia, 1922.
Present History: Sudden pain right kidney region, 3 months.
Urinary symptoms: Frequency, nocturia, dysuria and hæmaturia.
Physical: Appearance good.
Temperature: 100.6 degrees F.
Systolic at apex and transmitted to left axilla. Right Costo Vert. angle tender. Slight œdema in extremities. B.P.—S-150, D-95.
Urine: Albumen trace. Pus: plus. Blood: plus.
Rectal: Negative.
Cystoscopic: 6 F. to pelvis. Right pelvis capacity 8 cc. P. S. P.: Right appearance, 5½ minutes; 4%—10 min. Left appearance, 5 minutes; 5%—10 min.
X-ray: Both kidneys large and low, right pelvis very long and much divided. Right ureter makes a right angle turn inwards towards spine at level of fourth lumbar vertebrae. Below this point is a moderate dilation, and above this point is a very narrow area—definite stricture.
Treatment: Dilatation and lavage.

Case 77. Age 44 years, male, U. S., married, 5 days in hospital.
Diagnosis: Str. of ureter-pyelitis.
Family History: Negative.
Past History: G. C. 1898. Dysentry 1898 and last attack 3 months ago. Stones (11 in number), removed from left kidney 1913 and passed another in 1914. Appendix out 1 year ago. From May, 1923, to January, 1924, 7 attacks of hæmaturia and pain.
Present History: Gradual onset of pain, for 11 years (along ureter).
Symptoms: Frequency, dysuria and hæmaturia.
Physical: Appearance good. Post operation hernia at appendix scar and at kidney operation scar.
Rectal: Negative.
Urine: Negative.
Cystoscopic: Catheter 6 F. to pelvis. Capacity of right pelvis 30 cc. Capacity of left pelvis, 15 cc.
P. S. P.: Appearance right 5 minutes, left 7 minutes, 56% in 3 hours.
X-ray: Right kidney pelvis larger than usual; right ureter (erect) dilated from upper level of 5 lumbar to Bl. No. stone. Left kidney double pelvis, which joins in common one, which is dilated. 2 definite shadows.
Treatment: Dilatation and lavage.

Case 81. Age, 34 years, male, 6 days in hospital.
Diagnosis: Stricture of ureter, hydronephosis.
Family History: One brother died of peritinitis. One brother died of T. B. C.
Past History: G. C. 1922. Acute prostatis May, 1923. Tonsils out May, 1923.
Present History: Dull pain left side back, gradual for 2 years.
Physical: Appearance good.
Rectal: Negative.
Urinalysis: Negative.
Cystoscopic: Right 6 F. to pelvis. Left 6 F. to pelvis, slight obstruction three-quarters way up.
P. S. P.: Right appearance, 4 minutes; 7% in 10 minutes. Left appearance, 5 minutes; 5% in 10 minutes.
Microscopic: Negative.
X-ray: Left pelvis capacity 23 cc., calyces much stretched out and irregular in outline. Points of constriction: No. I, 1.1 inches below kidney pelvis; No. II, 2.2 inches below kidney pelvis; No. III, 1.5 inches above ureteral orifice.
Treatment: Dilatation.

Case 96. Age 55 years, barber, male, married, 8 days in hospital.
Diagnosis: Stricture of ureter.
Family History: Negative.
Past History: Negative.
Present History: Sudden pain in left costo vertebral angle and radiating to penis and thigh.
Duration: 6 days.
Urinary Symptoms: Dysnuria.
Physical: Temperature 104 F.
Rectal: Negative.
Urine: Negative.
Cystoscopic: Left ureter mouth congested. Right ureter No. 5 F. easily to pelvis. Left ureter No. 5 F. with difficulty to pelvis. Pelvis capacity 20 cc.
P. S. P.: Right appearance in 3 minutes; trace in 10 minutes. Left appearance in 7 minutes; 1% in 10 minutes.
Urea: Right 40 grms. per litre. Left 15 grms. per litre.
X-ray: Some fraying at level pole left kidney, also at upper and middle parts left kidney. Definite stricture from level of transverse process of second lumbar to level of transverse process of third lumbar. Dilated above and below this.

Case 53. Illustrating obstruction due to pressure, abherrant vessel and not real stricture. Age 44, male, U. S., married, 7 days in hospital.
Diagnosis: Stricture of ureter.
Family History: Negative.

Past History: Cholera in childhood; G. C. and lues.

Present History: One and one-half years ago sudden pain left side and to testicle.

Urinary Symptom: Nil.

Other Symptoms: Nausea, vomiting and headaches during attack.

Physical: Appearance good. Temperature 105, chill, sub-costal tenderness and pain on bi-manuel of kidneys.

Urine: Albumen 2 plus, pus 2 plus, blood 1 plus.

Rectal: Negative.

Cystoscopic: Mild cystitis and trigonitis, No. 6 to right pelvis, No. 5 to left pelvis.

P. S. P.: Right appearance in 2½ minutes; 10% in 10 minutes—urea, 25 grams per litre. Left appearance in 2 minutes; 8% in 10 minutes—urea, 12 grams per litre.

Microscopic: Negative.

X-ray: Left pelvis 18 cc.—sod iodide. Prone position, 1½ in. above crest of ileum. Upright position slightly above crest of ileum. This makes ureter take shape of right angle in erect position. A definite area of constriction can be made out and may be due to abherrant vessel.

Treatment: Operation later. Belt advised for present.

Case 74. Case in which hæmaturia was severe and the only symptom. Age 56, race U. S., male, married, 8 days in hospital.

Family History: Negative.

Past History: Quincy as child, scarlet fever 15 years old, measles 33 years old.

Present History: Severe hæmaturia, the onset of which was gradual, and of 8 weeks duration, and which was the only symptom.

Urinary Symptom: As above.

Physical: Patient appears in good health. The teeth are nearly all gone, the heart shows an occasional extra systole. The abdomen, lower pole of the left kidney very slightly tender, if at all. Blood pressure, systolic 100 diastolic 62.

Urine: Trace of albumen, abundant blood.

Rectal: Negative.

Cystoscopic: Marked trabeculation, with slight intrusion of the prostate.

P. S. P.: Dec. 27, 1923, right appearance 4½ minutes; 15% in 10 minutes. Left appearance 4 minutes; 10% in 10 minutes.

Jan. 5, 1924, right appearance, 6 minutes, 9% in 10 minutes; left appearance, 5 minutes, 10% in 10 minutes.

Urea: Right 18 gms. per litre. Left 16 gms. per litre.

Microscopic: Right negative, left blood plus plus. Granular cast, plus pus.

N. P. N.: 13.8.

X-ray: Left pelvis holds 30 cc. injection fluid, and the outline is feathery. A kink of the ureter 1½ inches below uretero pelvic junction, 1 inch below this point ureter much dilated.

Summary of Findings in This Series of Cases

1. The greatest incidence of ureteral stricture, which produces symptoms, is in the 4th decade of life, 33% having occurred at that time in this series. Also that the incidence is decreased by one-third approximately in the 3rd and 5th decades, the percentage in these decades having been 23 and 22 respectively, and lastly that it may produce symptoms at any age.

2. Sex seems to influence the matter not at all.

3. Failure to recognize this lesion and to properly interpret it and treat it results or at least has in the past resulted, in innumerable useless operations, which of course have followed errors in diagnosis.

4. Pain is the most universal symptom, there being only 10% that did not present this symptom, which was the chief symptom in 84 cases.

5. Bladder symptoms are very common, inasmuch as they occurred in 60% of cases. In 9 cases frequency was the chief complaint. In 1 case dysuria was the chief complaint, and in 6 cases the chief complaint was hæmaturia.

6. The urine may be quite normal, as it was in nearly half of the cases. Hæmaturia may be the only symptom, as it was in 2 of these cases, one of which was very severe. The ureteral specimens may be negative also for pus blood and casts, as they were in 81 of these cases. The B. coli usually is the infecting agent when the culture is positive.

7. The fever arises whenever the stricture closes, and this without infection being present.

8. Gastro intestinal symptoms are very common, having occurred in about one-fifth of the cases.

9. Nervous symptoms may be present in a large percentage of cases, there being, however, only 5% in this series. This, in fact, may account for and probably does, the great irritability of many persons who appear in good health.

10. The physical examination should include palpation of the kidney, and the whole length on the ureter, not neglecting to examine its lower end, per vagina or rectum or both. In 43% of cases here analyzed the kidney pathology was made very probable by simple physical examinations.

11. Cystoscopy may be quite negative, as only 20% of these cases had cystitis. It is the ureter mouth, which is most likely to present pathology, as it may be inflamed, congested, or have a small ulcer near it. The fact that a No. 6 F catheter passes to the kidney pelvis is no indication that there is no pathology present, as this occurred in 73 cases on the right side and in 64 cases on the left side.

12. The Phenolsulphophthalein test and the percentage of urea: In roughly one-fifth of the cases here analyzed a difference in the percentage secreted was observed when that from the right was compared with that from the left, the side presenting the greatest lesion, putting out the lesser amount of dye and the lesser amount of urea. This is as one would expect, and it probably occurs in all cases, but it is not capable of being demonstrated in all cases, unless one went through more procedures than would be warranted by the patient's condition.

13. Definite strictures do occur in all parts of the ureter, and almost as many in the upper

ureter as in the lower, and in one case the condition was definitely proved at autopsy.

14. Kinks of the ureter occur and are probably most often secondary to heavy kidneys above them. In this series kinks occurred in 14% of cases, and most of these in the upper ureter, usually just below the pelvic junction.

15. Angulations also occur, there having been 5 instances of it in the cases here discussed and somewhat remarkably all on the right side.

16. In at least one-fifth of the cases there is a hydronephrosis of greater or less degree.

Conclusions Drawn from the Findings and the Literature

1. Focal infection is the primary cause of chronic infection in the walls of the urinary tract, and it may come from distant foci, e.g., in tonsils, abscesses at the roots of teeth, or the various sinuses. It may even come from a nearer focus, e.g., the prostate gland. Also it is carried to various parts of the basic structural frame work of the urinary tract, via the blood stream and lymphatics. And that it rarely, if ever, spreads along the mucous membrane of the genital tract once it has arrived there by direct continuity.

2. When the chronic infection has been established in the walls of the ureter it finally leads to stricture of that organ, which produces all the well known sequelae, that follow obstruction or retardation of the urinary flow:

Urinary calculi.
Hydro ureter.
Hydronephrosis.
Pyelitis.
Pyonephrosis.
Nephroptosis.
Movable kidney.
Floating kidney.

Also it is an important factor in the etiology of the so-called essential hæmaturias, and the production of chronic interstitial nephritis.

The frequent association of stricture of the ureter and venous phleboliths in close proximity thereto is some indication that they probably do come from the same inflammatory process, and also suggests that some of these conditions have originated in the genital tract.

May I observe that it could be argued that the same infective process which produces the stricture, could very well at the same time set up to the chronic interstitial nephritis. But even if we grant that sequence as being the one that really takes place, yet it cannot but be admitted that the stasis ensuing upon obstruction, caused by the stricture, will materially further the onward progress of the nephritic condition. This production of a chronic nephritis is an aspect of this subject of stricture of the ureter, which I am constrained to believe has not been sufficiently emphasized, and therefore I am of the opinion that all cases that are diagnosed as chronic interstitial nephritis should be further investigated from the point of view that they may have obstruction of greater or less degree in their ureters.

3. When the chronic infection has settled in the coats of the bladder wall it produces:

1. Small ulcers on the surface of the bladder mucous membrane, which, however, are only a small and very insignificant part of the general infiltration of the coats of the organ.

2. A diffuse fibrosis in the smooth muscle of the bladder wall which therefore proceeds to lose its elasticity.

The bladder then commences to be the seat of diseased conditions, which formerly were referred to as the various bladder neuroses.

4. When the chronic infective process is set up in the walls of the urethra, there then supervenes urethritis, which produces little or no signs of its existence by either discharge from the external genitalia, or by reddening of the external parts; but which nevertheless is the cause of very disquieting bladder symptoms, which in the past were supposed to have been due to such ill-defined clinical conditions, as the above referred to so-called bladder neuroses.

5. The above referred to foci of infection should be sought for and remedied.

6. Dilatation of the strictured areas should be performed when the condition exists either in the ureter, urethra or both.

7. Surgical procedure should only be adopted when it is obvious that dilatation will fail from the first to remove a stone, which is too large to pass, and when operation is not contra indicated by other considerations. A surgical operation is necessary of course when dilatation has already failed. The surgical operation of nephrotomy is the one of choice in dealing with the hæmaturias that are not due to renal varix or tumor or t.b.c. All cases should be relieved of obstruction or stasis arising from adhesions, which have followed previous operations, or trauma, or anomolous vessels, or any other condition causing pressure on the ureter. The operative technique should include precautions against sutures acting as points of deposit for the urinary salts at any point along the tract, as well as all other methods to guard against the recurrence of calculi.

8. Postoperative X-ray examination should be made routinely at regular definite intervals.

9. The chemical composition of stones should be studied with the view of correcting faulty metabolism.

10. Most cases will be relieved by the dilatation of their ureteral strictures with indwelling bougies and catheters.

11. Infection should be definitely recognized as a factor in a certain percentage of cases and when it exists it should be treated by routine lavage of the renal pelvis.

The above conclusions and preceding summary embody then the thesis that I wish to present, and I respecfully submit it to the profession for its consideration.

My thanks are due to Dr. Oswald S. Lowsley for very material aid and advice in the preparation of this paper.

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THE TREATMENT OF CANCER OF THE UTERINE BODY

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IN discussing the treatment of cancer of the uterine body we must correlate the older methods with those of today. During the past ten years radium has been proved to be of great value in the treatment of cancer and it is now possible to compare the end results obtained by this element with those obtained by operative procedures. Radium, it may be said, has achieved the foremost position in the treatment of cancer of the cervix; in the hands of experts the end results are as good as those with operative measures and the preliminary death rate is eliminated. Moreover, the results have been attained with only moderate amounts of the substance. These statements, however, do not apply to cancer of the fundus.

Every large hospital and many private individuals possess 100 mg., or more, of radium, and under well controlled curcumstances this would be of great benefit to the world but the cheapness of the radium has permitted the untrained man to enter the field of cancer surgery.

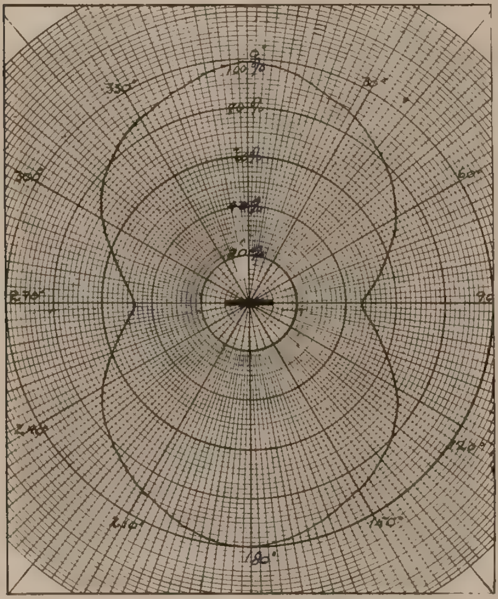

Chart 1. Curve showing distribution of irradiation about the platinum tube. (From paper by Harold Bailey, M.D., and Edith Quimby. *The American Journal of Obstetrics and Gynecology,* February, 1922.)

A peculiar situation arises. In the first place, if the use of the radium is in the hands of a physicist, he seldom has the training in gynecology necessary to allow him to select properly the cases and methods best adapted to the remedy. On the other hand, the gynecologists, with few exceptions, know little of the physics of radium. In all large hospitals a man should be assigned from each branch of surgery to study radium and the technique best suited to his speciality and in this way we should have experts in charge of irradiation treatments.

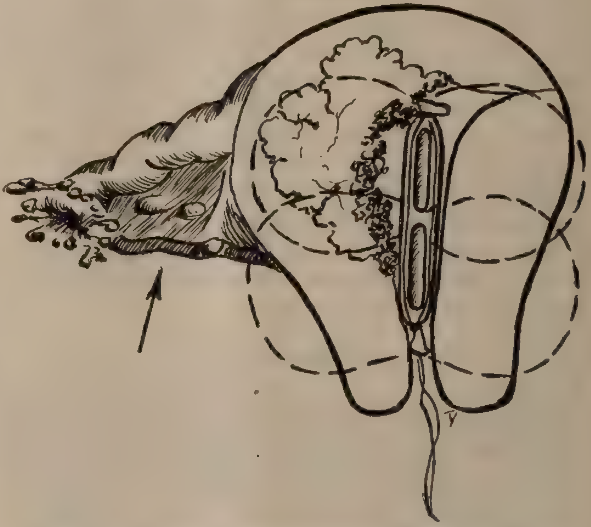

Chart 2. Cancer of the fundus. Incomplete irradiation. Malignant adenoma. Extension already in parametrium so that treatment with radium as shown would be of little avail.

The remarks in this paper are in the nature of a warning to the possessors of a small amount of radium, such as 100 or 200 mg., and to men who have not had a complete training in gynecology. Cases have come to my knowledge in which ill-advised applications have been made with expectations of cure far beyond the possibilities.

The action of the radium, from the standpoint of the penetration of the rays, is limited and in any amounts that we may safely use, it has a curative action for about 3 cm. from the applicator. The Gamma ray, which is the most suitable for general use, is broken up into secondary rays as it strikes the tissue cells and secondary radiation also comes from the metal of the filter thus causing a slough at the site of the application. Furthermore, the intensity is decreased inversely in proportion to the square of the distance so that any substantial increase in the amount in the capsules does not greatly increase the irradiation of the parametrium, although it causes irreparable damage locally. The capsule form in which we use the radium throws off the rays in such a manner that in any one plane they assume the form of an irregular ellipse and the tissue above and below is not radiated to the same extent as the tissue opposite. (See Chart 1.)

As a result cancer of the fundus can rarely be satisfactorily irradiated as extension of the growth over the dome of the uterus is not reached by the capsules placed in the cavity. Even the side walls may not be sufficiently irradiated be-

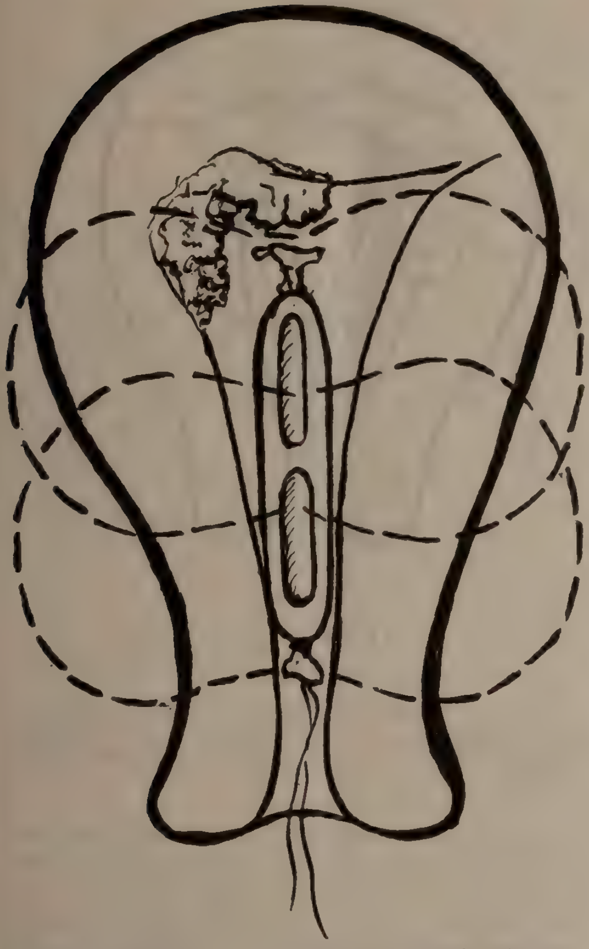

Chart 3. Cancer of the fundus. Incomplete irradiation. Papillary adenocarcinoma. Tandem applicators in place. Part of growth not completely irradiated.

cause the cavity enlarges with the growth and a tandem of radium placed within falls to one side and may be at some distance from the mucous membrane of the opposite wall. (See Chart 2.)

The histology of cancer and its method of spreading is also to be considered. The good results in the cervical growths are undoubtedly due to the fact that most of the tumors are of the squamous variety and are slow growing with a tendency to be definitely localized. In the body cancers, on the contrary, the most frequent type is the so-called malignant adenoma which is a rapidly growing tumor of cuboidal and cylindrical cells that extend deeply into the neighboring muscle and may metastasize in as short a time as two months. This type of tumor does not spread over the mucous membrane but rather through the muscle tissue and it is probable that at the time the patient appears for treatment, metastasis into the broad ligament has already occurred and even a very large dose of radium within the uterus will be of little avail. The tumor second in frequency is the papillary adenocarcinoma. This spreads rapidly in the mucous membrane and involves but slowly the muscle wall; even after a period of growth there may be no involvement outside the uterus. In some cases there is a polypoid mass at the fundus that fills such a large part of the cavity that a radium application packed into the uterus may be several centimeters from the top of the growth. (See Chart 3.)

The lymphatic drainage from the upper part of the uterus passes through the top of the broad ligament to the region of the ovaries and the ovarian plexus and thence to the lumbar nodes at the bifurcation of the aorta; and from the middle part of the uterus, extends to the iliac nodes and may also follow the round ligament to the inguinal nodes. In the lower part the lymphatics anastomose with those from the cervix and pass to the parametric glands and thence to the iliac nodes. There may also be transfer through the sacro-uterine ligament to the nodes below the promontory of the sacrum.

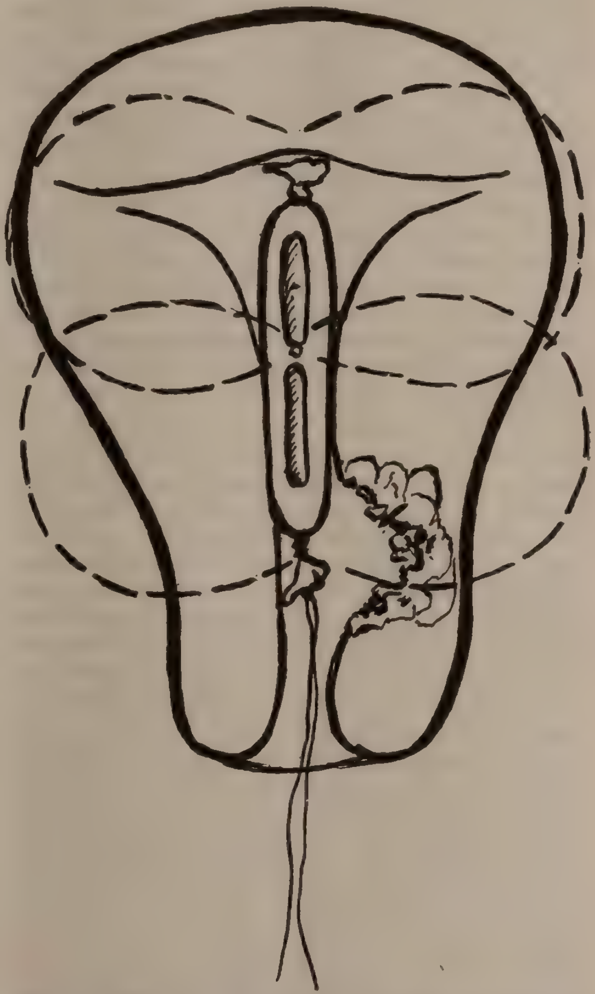

Chart 4. Cancer of the neck of the uterus. Extension along mucous membrane of parametrium. One of the most malignant types and seldom satisfactorily irradiated.

Cancer of the neck of the uterus does not enter this discussion but it should be stated that this cancer spreads very rapidly into the muscle and through the lymphatics. The cells are usually of the large cylindrical variety and they spread to the lower uterine segment; transfer further than this is through the parametrium to the iliac nodes or through the lymphatics to the ovarian plexus. (See Chart 4.)

With the knowledge that we have of the two quite different types of adenocarcinoma, it is apparent, that although in the more malignant tumor, the lesion in the mucous membrane is small, there may be lymphatic and glandular extension beyond the uterine wall; and in the papillary type, although the growth is limited to the uterus, it may be so located that with our present form of applicators, we are unable to irradiate it entirely and therefore we must conclude that radium alone cannot be the best method of treating cancer of the uterine body. However, five year results in cases in which radium alone has been used, because other physical conditions rendered operation impossible, show a 44 per cent cure rate which is nearly as high as that accredited to surgery. It would appear, then, that in order to make the most complete use of our facilities, *radium should be combined with surgery in the treatment of cancer of the body of the uterus.* (See Chart 5.)

There are occasional cases in which cancer occurs in very small areas of the endometrium. These areas are frequently malignant degenerations in a polypoid endometrium and they may be successfully removed by curettage or irradiation. There is one such case on record, in which curettage entirely removed the cancer and there are a number in the literature which have been cured by irradiation. No such simple treatment can be relied upon. The condition within the uterus and the lymphatics immediately adjoining must be unknown to the worker from below and proper treatment requires not only the irradiation but the removal of the organ. Before declaring a specimen free of cancer, many sections from both the uterus and the parametrium must be examined. Our chairman, Dr. Beck, has given me permission to mention a case that he is about to report, in which, following preoperative radiation and operation, the uterus appeared to be free of cancer. The pathologist, however, insisted upon cutting repeated sections and finally found a small area of adenocarcinoma. In one of my own cases no cancer was found in the uterus but a small area of degenerated cancer cells was found in the parametrium. If a pathologist reports any precancerous changes such as reduplication, or epidermization, or a condition of adenomatous or adenoatoid endometritis, irradiation can be used without operation.

Radium, in treating cancer of the fundus, should be applied in the cavity of the uterus in a tandem in each capsule of which there are 100 mg. and irradiation should be for 2,500 to 3,000 millicurie hours depending upon the filter. The best filter is 1 mm. of platinum for the larger dose and one-half millimeter of platinum or gold for the smaller dose. Within five days the uterus should be removed by abdominal hysterectomy. At the end of two weeks a series of X-ray doses should be given about the pelvic girdle. This consists of 4 doses of 15 minutes each with 5 mm. of aluminum as a filter and at a focal distance of 12 inches. The spark gap should be 10 inches and the kilovolts 90 to 110 with 5 milliamperes of current. In the third week the vault of the vagina should be irradiated by means of a gram of radium given in the bomb applicator and directed toward each sacro-iliac region for one hour.

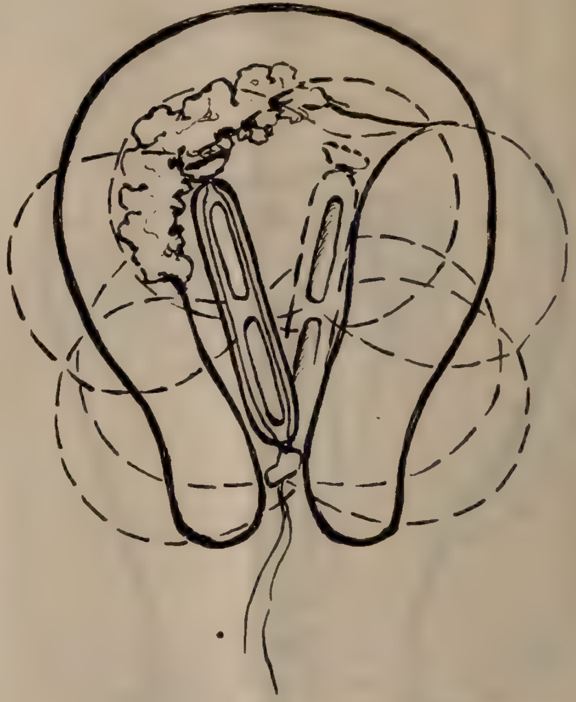

Chart 5. Cancer of the fundus. Incomplete irradiation. Tandem placed in the dilated cavity. Complete irradiation depends upon gravity moving the tandem properly.

In conclusion it should be stated that radium alone does not accomplish the best results. The amount of radium required and the exact location in the dilated cavity must be unknown and therefore this agent should not be used without operation.

Irradiation should be given within the uterus before operation so that there is less chance of the disease spreading during operative procedure which should be a simple complete hysterectomy and not an operation of the Wertheim type. Postoperative irradiation should be given at the end of the second week in order that any extension into the lymphatics may be fully controlled. Small institutions that have only 100 mg. of radium will have difficulty in carrying out the treatment for cancer of the body of the uterus as outlined here and therefore certain hospitals should be equipped to give the complete treatment and cases with this type of cancer should be transferred to those hospitals rather than cared for in smaller institutions.

PREGNANCY AND DIABETES; REPORT OF CASES*

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NOW that death and even marked ill health has been so definitely postponed in well cared for, severe diabetic patients by the use of insulin, and that in these patients physiological processes appear to proceed in quite a normal manner, the advisability for a diabetic woman to become pregnant becomes a question demanding consideration. These individuals who pass in a crowd as being healthy, are not, even though their metabolic defect appears to be stayed; they are still on a diet that is not normal, though it may be sufficient; there may be a disturbance in a vital system, especially the vascular, which is the result of diabetic toxaemia, and they may be more susceptible to certain infections.

Prior to the use of insulin, the occurrence of pregnancy, especially in a severe case of diabetes, was looked upon with alarm; we had not the tools to cope with the situation, and so these patients usually died in coma. With the use of insulin it was only reasonable to expect a better prognosis in such cases. Fortunately the physician does not bear this responsibility in its entirety because pregnancy more often occurs without there having been any previous consultation as to its advisability. In the series of cases reported below we were consulted in but one instance, when consent was given, on condition that the patient be under hospital supervision at least for the last month of gestation. In three of the cases the termination of pregnancy was urged but was refused.

J. Whitridge Williams reports that in his group of sixty-six cases of pregnancy in diabetic patients, twenty-seven per cent died during delivery, and twenty-three per cent succumbed within two years following the pregnancy. Also about one-third aborted and one-third of the foetuses were born dead. DeLee's experience was rather similar. This is such a gloomy state of affairs that it is no wonder that pregnancy in diabetics has been frowned upon. Fortunately, however, this condition adjusted itself to some extent, as the large majority of diabetic women became sterile. This is commented upon by DeLee who quotes 114 cases collected by Lecorche in whom there were but seven gestations. Insulin however, has changed this condition, as the majority of amenorrhoeic patients have a return of their menstruation and become fertile. This has recently been discussed by Fitz and Murphy who have reported one case. In our group of seven cases, three had amenorrhoea, with a return of menstruation after prolonged insulin treatment. Joslin, who has had such a complete experience in diabetes, gave his full consent for pregnancy in but one case before insulin. He believes that pregnant women are so unstable that acidosis may come on in a few hours, thereby making it unsafe.

Three cases of true diabetes and pregnancy have recently been reported by Strouse and Daly. Two of them were apparently mild and were delivered of healthy babies without difficulty, in the other there was diabetic coma, and while the mother was saved by insulin, the child was born dead.

The following small series is composed entirely of cases of true diabetes mellitus. There are, to be sure, many glycosurias complicating pregnancy that are not truly diabetic; these of course should be carefully differentiated, if necessary, by sugar tolerance tests which will usually decide whether the glycosuria is of the diabetic, renal, or the alimentary type. It is most important that this decision be made before intelligent advice can be given.

Case 1.—Mrs. M. P., age 33, File No. 20342, was first admitted to the hospital on January 29th, 1923, because of diabetic symptoms which had been going on for three years, during which time she had lost sixty pounds in weight. Physical examination did not reveal any abnormality. Her urine contained plenty of sugar but no ketones. The blood sugar was 290 mgms. She was placed on a diet of about 1,000 calories, whereupon the urine immediately became free from sugar, later on it was determined that she could tolerate a diet of C. 45, P. 50, and F. 150 without glycosuria, but with moderate hyperglycaemia—150 to 230 mgms. The weight remained about the same—98 to 100 pounds—so that after a month of treatment with diet alone, insulin was started—five units before meals. She was discharged on April 20th, taking a diet of C. 60, P. 60, and F. 160, with seven units of insulin before each meal. Her weight was 109 pounds. She was seen thereafter frequently in the Diabetic Out-patient Clinic and continued to gain weight and improve generally. During November 1923 she was found to be about two months pregnant. She was seen at least every two weeks during her pregnancy; her blood sugar was usually normal and the urine sugar free. The weight increased to 152 pounds. The blood pressure remained normal—102 to 108 systolic and 76 to 84 diastolic.

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Second Admission.—On May 3rd, 1924, she was admitted in a state of pre-coma; there was very marked hyperpnoea and evidence of dehydration. It was learned that she had been vomiting for two days. The urine contained a good trace of albumin, no sugar, a sodium nitro-prusside reaction, and the sediment showed a few granular casts. The blood sugar was 160 mgms. and the CO_2 capacity of the plasma was 6.5 mm. Her blood pressure was 140 systolic and 75 diastolic. She was given a hypodermoclysis of 500 cc. of salt solution, and a 5 per cent solution of glucose combined with 2 per cent solution of sodium bicarbonate was administered per rectum. Vomiting continued and the following day she was considerably worse—the pulse had risen from 100 to 138, and she was in a state of partial collapse. Hypodermoclysis was repeated and 200 cc. of a 10 per cent solution of glucose was given intravenously, one-half hour before which she had received 15 units of insulin. Also, caffeine sodium benzoate 0.5 was given subcutaneously. Two hours later 200 cc. of a 10 per cent solution of sodium bicarbonate was given intravenously. A Caeserean section was decided upon and at the time of the operation—8 p. m.—which was performed by Dr. William T. Getman, the patient was in such a state of collapse that it was easily performed under local anaesthesia. The patient rallied very quickly after the uterus was emptied, and the breathing was easier, probably because of the removal of the hindrance to respiratory excursion. The child was alive and weighed nine pounds and two ounces. The patient continued to vomit for two days so that no appreciable amount of food was retained; hypodermoclysis of salt solution, and glucose per rectum had to be resumed. On May 5th the CO_2 capacity of the plasma was 2.7 mm., the blood sugar was 255 mgms. and the urea nitrogen in the blood 49 mgms. per 100 cc. The urine contained a +++ albumin reaction, a ++ sugar, and a slightly positive ferric chloride reaction. From then on the patient improved and was given regular trays on May 8th. She and the child were discharged on June 14th in excellent condition. The mother's blood sugar was normal —133 mgms.—the blood urea nitrogen was 15 mgms. and the urine contained neither sugar nor albumin. Her weight was 125 pounds. She was again followed in the Diabetic Out-patient Clinic although she did not report as regularly as before. Her weight increased considerably so that a year later it had reached 170 pounds. The urine was free from sugar, except for an occasional trace, but the blood sugar was frequently high—171 to 230 mgms. In July, 1925, it was found that the patient was again pregnant. Intervention was advised but she refused. On December 22nd her weight was 188 pounds, the urine was free from sugar and the insulin dosage was 13 units t. i. d.

Third Admission.—On February 23, 1926, she was again admitted in a pre-comatose state, much the same as in the second admission but not as severe. She had been vomiting for two days and had had headache and swelling of the lower extremities. The urine contained albumin (++), a trace of sugar and a +++ ferric chloride reaction. The blood sugar was 328 mgms. and the CO_2 capacity of the plasma was 7.4 mm. Her blood pressure was 100 systolic and 60 diastolic. She was seen immediately in consultation with Dr. Francis C. Goldsborough and an immediate Caesarean section was decided upon, because of our previous sad experience of waiting twenty-four hours. Salt solution was administered subcutaneously and a glucose and sodium bicarbonate solution per rectum. She was given 10 units of insulin just prior to the operation which was performed under nitrous oxide and oxygen anaesthesia. By previous consent the Fallopian tubes were tied at the time of the section. She improved immediately after the operation as she had done the previous time.

The child weighed five pounds and ten ounces and lived but eight hours after the section. Necropsy showed an incomplete development of the brain, external hydrocephalus, and petechial haemorrhages in the meninges, pericardium, and pleurae. Unfortunately the pancreas was not examined. The chief diagnosis was prematurity.

On March 12th insulin was discontinued for seventeen days during which time she was taking a diet of C. 60, P. 60 and F. 130. Sugar did not appear in the urine even in traces despite the high blood sugar (266 mgms.) on March 26th. She, nevertheless, was discharged with insulin—12 units in the morning and 10 units at night. Her weight was 155 pounds.

Comment.—Two pregnancies in a moderately severe diabetic patient, both terminating rather suddenly in acidosis and coma which appeared to be diabetic, except for the absence of glycosuria. In the first instance the symptoms became progressively worse despite treatment until the uterus was emptied. In the second instance Caesarean section was done immediately with little preparation. The child at the last section died because of prematurity.

Case 2.—M. T., a stenographer, age 22, File No. 21003, was admitted to the hospital May 16, 1923, because of diabetes. The usual symptoms had been present about eighteen months, and during some of this time she had been upon a diet which had failed to control the sugar. Her history was unimportant except that an uncle also had diabetes. Her height was 60 inches and her weight 96 pounds. Her blood pressure was 110 systolic, and 60 diastolic. Physical examination was negative, except for the poor nutrition. The urine contained albumin, +; sugar, +++; the ferric chloride reaction was +++, and the sediment showed a rare hyaline cast. The blood sugar was 170 mgms. and the blood urea nitrogen was 23.8 mgms. per 100 cc. She was discharged from the hospital on May 31st, taking a diet of C. 60, P. 50, and F. 140 and insulin 10 units before meals. The urine sugar was reduced from 46 grams in twenty-four hours to a trace and the ferric chloride reaction had become negative. She was seen occasionally in the Diabetic Out-patient Clinic up to October, 1923, during which time the urine remained free from sugar and the blood sugar varied from 100 to 180 mgms. Her insulin dosage was increased to 12 units before breakfast and supper and 8 units before lunch. Her weight increased to 107 pounds. The patient was not seen again until her second admission.

Second Admission.—On December 5th, 1925, she was re-admitted, seriously ill, at which time she was seen with Dr. William T. Getman. Her pregnancy was nearly at full term. There had been oedema for ten weeks which was increasing. Headache and vomiting had been present for several days. (It was learned from her physician that the urine had remained sugar free all during the pregnancy but that albumin had appeared during the past few weeks.) The urine contained albumin, +++; sugar 0; a slightly positive ferric chloride reaction; and the sediment contained many granular casts. The blood urea nitrogen was 28 mgms., chlorides (whole blood), 453 mgms., sugar 180 mgms., and the CO_2 capacity of the plasma was 14.3 mm. The blood pressure was 180 systolic and 100 diastolic.

The membranes were not ruptured. It was decided to induce labor and a bougie was inserted. During the night the patient received a 3 per cent solution of sodium bicarbonate by rectum and orange juice by mouth; there was some vomiting. A venesection was done and 350 cc. of blood removed. Also, morphine sulphate 0.1 was given subcutaneously in 4.0 cc. of a 28 per cent solution of magnesium sulphate. By morning (December 6th), the patient having gotten considerably worse, and no labor pains having occurred, Caesarean section was decided upon.

Before the operation the patient received 15 units of insulin followed in a half hour by 200 cc. of a 10 per cent solution of glucose intravenously. The section was performed under nitrous oxide and oxygen anaesthesia and she was delivered of a ten pound child. It was impossible to resuscitate the child. The mother did not regain consciousness after the operation. Salt solution was given intravenously, oxygen inhalation through nasal catheters was kept up, caffiene sodium benzoate 0.5 was administered subcutaneously every hour, and finally, about 200 cc. of blood was transfused. Death occurred in about two hours after the patient returned from the operating room.

Comment.—This patient entered the hospital in a seriously ill state, with an association of rather severe diabetes, and a toxaemia of pregnancy, probably eclamptic. The induction of labor failed and twenty-four hours of valuable time were lost. Caesarean section was done but both the mother and child died. It is possible that if insulin and glucose were given immediately and Caesarean section resorted to earlier, that the outcome might not have been so tragic.

Case 3.—H. R., a housewife, aged 36, File No. 31,947, was admitted to the hospital on February 18th, 1925, because of diabetic symptoms which had been present for about two years. Her weight during that time had dropped from 160 to 102 pounds. She was the mother of five children and had had one stillbirth. Physical examination was negative excepting for the poor nutrition. X-ray examination of the lungs showed an increased density in the upper lobes of each lung, which might be produced by tuberculosis. The urine contained 26 grams of sugar during the first twenty-four hours and a ++ ferric chloride reaction. The blood sugar was 220 mgms. She was discharged from the hospital on March 5th, with a diet of C. 50, P. 60, and F. 130 and insulin, 10 units night and morning. During May, 1925, we learned that she was pregnant. She remained well all during that period; her blood sugar was always normal (weekly examinations) and the urine free from sugar and albumin. Her blood pressure also was normal—about 120 systolic, and 80 diastolic. On October 12, 1925, she was delivered at home of a healthy, six pound child, by Dr. Victor A. Pchellas. She returned to the Diabetic Out-patient Clinic again in November in very good condition and weighing 121 pounds. Her urine remained free from sugar at all times, and it did not appear that the pregnancy affected her tolerance in the slightest. On June 1st, 1926, she came to the clinic and it was found that her digestion blood sugar was 350 mgms., and that the urine contained sugar; upon inquiry, however, it was learned that she had forgotten to take her insulin that morning. She had been frequently cautioned against subsequent pregnancies, but nevertheless, when she visited us in August it was announced that she was again pregnant—one month.

Comment.—Although this patient appeared to be a moderately severe diabetic, she went through a pregnancy without the slightest disturbance. The foetus, however, was small.

Case 4.—R. D., aged 33, File No. 36,291, was first admitted to the hospital October 24, 1925, because of diabetes, the symptoms of which had been present for about six months. During this period her weight had dropped from 250 pounds to 228. One sister who is also obese has diabetes. She has had six pregnancies, four of them having terminated in a miscarriage; the two children are in good health. Physical examination revealed an obese woman with rather pale skin and mucous membrances. The tonsils were large and showed large crypts. The blood pressure was 110 systolic and 70 diastolic. There was no oedema. The urine showed the slightest possible trace of albumin, a + sugar, and a faint ferric chloric reaction; the sediment showed numerous white cells, but no casts. The blood sugar was 170 mgms. The haemoglobin was 70 per cent and the red cells were 4,600,000. The white cells (on one occasion) were 13,800 and the differential count showed 60 per cent of polynuclear cells. The Wassermann reaction in the blood serum was negative. She was placed immediately upon a diet of about 1600 calories and immediately the sugar disappeared from the urine. She was discharged from the hospital on October 30th with a diet of C. 50, P. 70, and F. 130. Her blood sugar (digestion) was 164 mgms. Her weight was 217 pounds. She was followed in the Diabetic Out-patient Clinic; her weight dropped slowly—one to two pounds a week—and her urine remained free from sugar. It was then learned that she was pregnant.

Second Admission.—On December 12th, 1925, she was re-admitted because of vomiting which had persisted for nearly four weeks. The urine showed considerable sugar—18.6 grams the first 24 hours—there was, however, only a slightly positive ferric chloride reaction. Unfortunately the blood sugar or the CO_2 capacity of the plasma were not done before treatment was instituted. A two per cent solution of sodium bicarbonate was given per rectum. Insulin 8 units every six hours, one half hour before a feeding of 200 cc. of milk. Vomiting stopped immediately. On the third day after admission she was able to take trays and insulin was discontinued. She, however, took only about 75 per cent of her diet. Her weight on December 20th was 182 pounds. The urine contained only the faintest trace of albumin with but a few white cells in the sediment. She was discharged on December 24th in fair condition. Her blood sugar (digestion) was 80 mgms.

She was seen again in March, 1926, at which time the urine showed a trace of albumin, no sugar, negative ferric chloride reaction and a few round epithelial cells in the sediment. Her weight was 188 pounds. The blood pressure was 110 systolic and 75 diastolic. She was then six months pregnant. Again, in May, there was no essential change in her condition, except that no albumin was found in the urine.

During June she was delivered at home by Dr. John A. Metzen; there were apparently no complications. The child was alive and weighed six pounds. At her visit to the clinic in August the blood sugar was 83 mgms. and the weight 163 pounds. She felt well.

Comment.—A rather mild diabetes in an obese woman, which apparently became milder as her weight was reduced. Vomiting of pregnancy occurred during the third month of gestation which cleared up quickly, after she came to the hospital for treatment, and gave no further trouble.

Case 5.—E. B., aged 24, File No. 40,776, was admitted to the hospital on July 3rd, 1926, because of pregnancy (7 months) and diabetes which latter had existed for an indefinite time. She had visited a physician three years previously because of an irritation of the vulva; sugar was found in the urine. At that time her weight was at its highest—225 pounds. The mere omission of sugar from diet, according to her statement, caused the sugar to disappear; it returned, however, as soon as a normal diet was taken. She had had four previous pregnancies, the last one resulting in a miscarriage which occurred in October, 1925. Two of these, the first and third, were instrumental deliveries and at the third the child weighed thirteen pounds. At each pregnancy, especially the second, she had suffered from marked anaemia both during the period of gestation and for some time afterwards.

Physical examination showed an obese woman weighing 216 pounds. Her skin and mucous membrances showed a moderate pallor. There was an icteroid hue to the sclerae. The blood pressure was 128 systolic, and 86 diastolic. There was slight oedema of the legs, and slight dyspnoea. The urine contained a ++ albumin, 8 grams of sugar during the first 12 hours in the hospital, a + ferric chloride reaction, and the sediment showed many white and epithelial cells. The blood sugar was 227 mgms., and the urea nitrogen 9.8 mgms. The haemoglobin was 69 per cent. The white cells were 9,200 with

75 per cent of polynuclear leucocytes. The Wassermann reaction in the blood serum was negative. The van den Bergh test gave a negative direct, and a slightly positive indirect reaction. For the first two days of her stay she received 5 units of insulin every five hours, one-half hour after which she was given orange juice, 200 cc., conbined with the whites of three eggs. Sugar disappeared from the urine (except for an occasional trace) after the second day when she was placed on a regular diabetic diet—C. 60, P. 90, and F. 100. Insulin was then discontinued. The blood sugar on July 9th, was 175 mgms. during digestion; on the 12th, it was 143 fasting. She was discharged from the hospital on July 14th. When seen again, on July 31st, her weight was 219 pounds. Blood pressure 135 systolic and 80 diastolic. The urine contained a ++ albumin, a trace of sugar but a negative ferric chloride reaction. The blood sugar was 162 mgms.

Second Admission. — She was readmitted on August 29th in labor. Her membranes were ruptured although there was no pain. Her blood pressure was 150 systolic and 120 diastolic. Other examinations were about the same as upon previous occasions. She was delivered quickly (15 minutes) by version and extraction, under chloroform anaesthesia by Dr. Irving W. Potter.

The child weighed ten pounds and ten ounces and appeared perfectly healthy. On September 3rd, the mother's haemoglobin was 45 per cent and the red cells were 2,800,000. The white cells were 6,500 with 70 per cent of polynuclear leucocytes.

Comment.—A rather mild diabetes occurring in an obese woman. Pregnancy progressed normally and she was delivered at full term by version and extraction. Both the mother and child did well. A rather marked secondary anaemia was the only complication.

Case 6.—H. B., aged 34, File No. 17,943, was admitted to the hospital on October 26th, 1922. She stated that diabetic symptoms came on in June, 1920, during the early months of her second pregnancy. She had remained on diabetic diet and had gone through the pregnancy without any disturbance. Two months after its termination while on a fairly liberal diet no sugar was found in the urine, but later the symptoms returned so that it was necessary for her to diet quite strenuously. During that two year period her weight dropped from 165 to 116 pounds. She had had an attack of kidney stones six years ago and one attack one year later. During the year of 1919 she had two attacks of maxillary sinusitis. Her paternal uncle died of diabetes at 48 and her father died suddenly at 62 of "heart disease." Her mother died of pernicious anaemia at 60. Physical examination showed a slightly undernourished woman with some pallor of the skin and mucous membrances. The accessible arteries and veins appeared slightly more firm than normal. The blood pressure was 100 systolic, and 70 diastolic. The right kidney was palpable but not tender. The urine showed the faintest trace of albumin, a heavy sugar reaction and a positive sodium nitro-prusside reaction; in the sediment, numerous white blood cells. The haemoglobin was 82 per cent, red cells 4,980,000, white cells were 4,800 with 71 per cent of polynuclears. The Wassermann reaction in the blood serum was negative. The admission blood sugar was 370 mgms., and the CO_2 capacity of the plasma was 29 mm. The first twenty-four hour urine specimen contained 68 grams of glucose. She was placed on a diet of 850 calories; at the end of a week 27 grams of glucose was excreted in a day. Insulin was then started—20 units per day (she being one of our first patients to receive it). She was discharged on November 18th, with a diet of C. 45, P. 50, and F. 115 with 40 units of insulin daily. The urine was free from sugar and diacetic acid and the blood sugar was 130 mgms. Her weight was 109 pounds. She was seen frequently from time to time after leaving the hospital and her case proved to be a difficult one, because on the one hand she had rather distressing insulin reactions and on the other marked glycosuria. Her diet, on December 17th, was increased to about 1,650 calories. Her weight increased rapidly and in a year had reached 156 pounds.

Second Admission.—She came to the hospital again on December 3rd, 1923, for a check up, because it had been so difficult to get the sugar under control, and for a rest. It was learned that her menstruation, which had been absent since December, 1921, had returned normally in July and August, 1923, but had since ceased again. She was discharged on December 8th, receiving a diet of C. 48, P. 70, and F. 124, with 28 units of insulin in the morning and 22 in the evening. Her urine, on that program was sugar free at all times and the blood sugar was quite normal during digestion. While at home she continued to do well, but had to have the dosage of insulin increased about 10 units to control the glycosuria. During the summer of 1924 she consulted us with regard to advisability of becoming pregnant. She was told that nothing could be guaranteed but if she kept under strict supervision and if she would remain in the hospital during the last month that her life would not be greatly endangered. To this she acquiesced. During this pregnancy she reported frequently and remained free from any signals of danger, although the blood sugar was high at times—225 mgms. Her weight increased tremendously, reaching 182 pounds in April, 1925.

The abdomen was huge. The blood pressure was always normal 115 systolic, and 85 diastolic. The urine was generally free from sugar and no positive ferric chloride reaction was ever obtained. The insulin had to be increased to 36 units in the morning and 32 in the evening.

Third Admission.—On May 29th, she was admitted to the Children's Hospital at full term. She was delivered immediately by version and extraction by Dr. Irving W. Potter, under chloroform anaesthesia. There was a very marked hydramnios. The child weighed ten pounds and appeared well, excepting for cyanosis, which was attributed to the rather long labor. After the delivery she was given 15 units of insulin and in a half hour, 200 cc. of orange juice. The child developed increasing cyanosis, had muscular twitching and did not breathe well. Oxygen inhalations, calcium by mouth, and subcutaneous injections of atropine sulphage—1/2000 gr. were of no avail and death took place in eight hours. A necropsy was not permitted. The mother did splendidly except that she appeared to be extremely sensitive to insulin after delivery, so that the dose, finally on discharge, ten days later, had to be reduced to 24 units in the morning and 10 units at night. The diet remained the same.

Comment.—Pregnancy in a very severe, long standing case of diabetes that required 70 units of insulin daily during the gestative period. There were no complications directly attributable to the diabetes. There was marked hydramnios and a large child which lived only eight hours. After delivery the insulin dosage had to be reduced 50 per cent in order to avoid severe reactions.

Case 7.—R. H., aged 28, File No. 25,302, was admitted to the hospital on January 14th, 1924. She stated that diabetes had come on three years ago and since that time she had had complete amenorrhoea. She had been in the Physiatric Institute at Morristown, N. J. for two months during the Spring of 1923 and since that time she had received insulin about 70 units a day. Her diet was about 1800 calories and during the time of insulin treatment her weight had increased 20 pounds, so that now it is 134 pounds. She had had one normal pregnancy but the child died about a year prior to the onset of the diabetes.

Physical examination was not remarkable except that both the ankle and knee jerks were absent. The blood pressure was 105 systolic, and 70 diastolic. The haemoglobin was 75 per cent. The urine was negative except for a trace of sugar in the forenoon specimen; there was no diacetic acid. The blood sugar was always low—about 100 mgms.—taken during digestion. She was discharged from the hospital on January 19th, with a diet of 1,500 calories and 22 units of insulin before meals. In April, 1924, she had a return of menstruation. The weight increased steadily and in May it had reached 168 pounds. Her home arrangements were such that she could not conveniently weigh her diet so that she often had insulin reactions or showed marked glycosuria; it is probable that she overate at times. In June she suspected pregnancy as there had been no further menstruation; this suspicion was confirmed by her obstetrician. Her weight increased tremendously and in December was 189 pounds. The urine showed an occasional trace of albumin, usually contained sugar and a trace of diacetic acid, but there was nothing abnormal in the sediment. The blood pressure was always normal.

Second Admission.—On December 11th, 1924, she was admitted to the Obstetrical Service of Dr. William T. Getman, in labor, the child which was nearly two months premature was delivered spontaneously. It weighed five and three-fourths pounds and lived only three days with an increasing jaundice. Necropsy showed multiple haemorrhages in the lungs, serous membranes, and spinal dura; slight gastric and duodenal catarrh; oedema of the lungs. The chief diagnosis was icterus neonatorum. The mother was discharged on December 21st. She was strongly advised not to become pregnant again. During the next few months she visited us rarely. On March 28th, 1925, her weight was 177 pounds and the fasting urine showed a +++ sugar reaction and a + ferric chloride reaction. She was still careless about the diet, but continued the insulin. On July 14th, 1925, she came in and announced that she had "felt life" for two weeks. At that time her weight was 185 pounds. She had increased the insulin dosage to 96 units per day. The urine was free from sugar, albumin and diacetic acid and the blood sugar was 63 mgms. She wished to continue the pregnancy and promised faithfully to test the urine for sugar several times daily.

Third Admission.—On July 28th, 1925, she was admitted with symptoms of impending diabetic coma. There was vomiting and marked hyperpnoea which had been present for about six hours. It was learned that she had omitted the last dose of insulin because the supply was exhausted; symptoms came on soon after. Her rectal temperature was normal; the leucocytes were 17,000 with 85 per cent of polynuclears. There was no discernible infection. The urine was loaded with sugar and diacetic acid and gave a ++ albumin reaction, but no casts were found in the sediment. The blood sugar was 512 mgms., urea nitrogen 17.5 mgms. The CO_2 capacity of the plasma was 5 mm. She was treated in the usual manner with insulin, 15 grams of sodium bicarbonate, and fluids, with the result that she improved rapidly. On July 30th, she aborted a five months, dead foetus. She was discharged on August 8th, with a diet of C. 50, P. 70, and F. 90. Her weight was 172 pounds. Insulin dosage, 50 units per day. She then moved out of the city and was lost sight of until her next admission.

Fourth Admission.—She was re-admitted on December 14th, 1925, three months pregnant, for the purpose of having the pregnancy terminated, which we had insisted upon. This was done without difficulty and she was discharged on December 20th. She has not been seen professionally since and as far as we know there have been no more pregnancies.

Comment.—A very severe diabetes in a young woman who had a return of menstruation, after a three years' cessation, as a result of insulin treatment. She became pregnant three times, the first resulted in spontaneous labor at the end of seven months, the child dying in three days, the second terminated in a miscarriage (5 months) two days following diabetic coma, and the third was interrupted artifically at the third month. The patient apparently did not suffer any permanent harm as the result of her experience, despite the fact that she had taken poor care of herself.

DISCUSSION

Of the seven cases reported, five required insulin before, during, and after pregnancy and therefore must be classified as severe cases. Two of them were especially so, as their insulin dosage was large. In these five cases pregnancy would have been impossible without insulin as the diabetes was of several years duration. The two patients who did not need insulin were obese, in the obese stage of diabetes insulin is rarely required, as the tolerance remains good until a great amount of weight is lost.

Case 1 is especially instructive, and it brings up a few questions of both academic and practical interest. A severe aglycosuric ketosis and acidosis came on rapidly and assumed violent proportions near the end of two successive pregnancies. There had never, on repeated examinations, been any glycosuria, and the diet while it was higher than the usual normal in fat, it was well within the accepted ketogenic and antiketogenic ratio, which is considered safe. It is possible that there might have been an element of toxaemia of pregnancy, as in the first pregnancy treatment appeared to be of no avail until the uterus was emptied; in the second we did not wait but terminated the pregnancy immediately. There was, in both instances, albumin and casts in the urine, this, however, is the classical accompaniment of any severe acidosis and cannot be considered as especially indicative of eclampsia as it had not been present until the acidosis came on. The blood pressure was slightly elevated—140 mm. systolic at the first attack, while it was normal at the other. In case 7 there was also an acidosis and coma, this, however, was easily explained as there was marked glycosuria and hyperglycaemia. The patient had been very careless about her diet and had neglected to take one dose of insulin. These cases demonstrate how extremely sensitive these pregnant diabetics are to acidosis, and how treacherous it may be. In normal pregnancy there is a slight acidosis, usually, if we may take the depletion of the alkali reserve as a criterion; the CO_2 capacity of the plasma is usually about 25 mm. and not infrequently as low as 20 mm. Possibly this may be a factor in explaining the susceptibility.

Case 2 demonstrates a true eclamptic toxaemia in a severe diabetic, who had during her pregnancy been rather careless about dieting although she had kept up the insulin. Nevertheless, upon admission to the hospital, even though she was in a critical condition, the diabetes did not appear to be a prominent feature, as there was no glycosuria or ketonuria and the blood sugar was only slightly elevated. Induction of labor failed and later Caesarian section was resorted to, but the result was a very unhappy one—both the mother and child died. Prompt section in this case might have led to a more favorable outcome.

Hydramnios, which was quite marked in Case 6, is claimed by Grafe to be more frequent in diabetic mothers.

Colorni has reported that 19.5 per cent of the foetuses of diabetic mothers were oversize. In this group, those of whom went to term, weighed respectively 9 pounds and 2 ounces, 10 pounds, 6 pounds, 7 pounds, 10 pounds and 10 ounces, and 10 pounds.

In this series of seven cases there have been ten pregnancies, two of which were miscarriages. Of the eight that came to term, or nearly so, four of the children were either born dead or died shortly after delivery. One of the mothers was lost, not directly as a result of diabetes, although that might have been a contributing factor. The mother in one case was in a critical condition on two occasions so that considerable apprehension was felt.

It is very difficult to decide whether pregnancy affected the tolerance. Cases 1, 6 and 7 demanded some increase in the insulin during pregnancy to control the carbohydrate metabolism; this quite probably might be attributable to the marked increase in weight that took place in these three patients. In these patients, after the termination of pregnancy, we were able to reduce the insulin considerably.

This experience was unexpected because of the experimental work of Carlson and Ginsburg who found that complete pancreatectomy in pregnant bitches near term is not followed by hyperglycæmia and glycosuria as long as the fœtuses are alive and the placental connections are not severed. These workers observed that full evidence of diabetes, such as occurs when pancreatectomy is done on non-pregnant dogs, did not appear until after the birth of the fœtuses. They thought that secretion from the fœtal pancreases reached the maternal circulation, thereby protecting the mother against diabetes.

While it is beyond the intention of this communication to discuss this subject from the standpoint of eugenics, we cannot be unmindful of the possibility of increasing the number of diabetics by the sanctioning of diabetic mothers to bear offspring. That diabetes runs in certain families cannot be gainsaid; every physician with an extensive diabetic practice has numerous case records of notable diabetic families, although the majority, particularly those who are severe, often do not have a positive family history. Two instances of simultaneous diabetes in the mother and foetus have recently been reported, one by Ambard *et al*, and the other by Merklen, Wolf and Oberling.

Summary and Conclusions

1. Diabetes complicated by pregnancy, particularly if the diabetes be mild, can be carried through successfully if the patient is kept under the strictest supervision. This may be impossible.
2. Acidosis and coma may arise suddenly even though the patient is kept free from glycosuria. Such a possibility is always ground for apprehension.
3. In the event of serious complications the pregnancy should be terminated immediately, preferably by Caesarean section.
4. The foetal mortality is apparently high.
5. Pregnancy, especially in the severe diabetic patient, is still a somewhat hazardous undertaking, and aside from the standpoint of eugenics and human economics, should be considered very seriously.

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PUBLIC HEALTH PROGRESS IN TWENTY-TWO COUNTRIES*

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THE International Health Year-Book, the first annual "progress report" published by the Health Organization of the League of Nations, is a summary of public health activities during 1924 in twenty-two countries. The United States and Canada are included, but with these two exceptions it is entirely a European report. One notes with surprise the absence of Great Britain, Ireland, and Italy.

Handbooks dealing with the organization of public health activities in different countries have already been published by the League, or are in the process of preparation. Since progress in the field of Public Health is rapid, the purpose of the Year-Book is to supplement this information by giving a comprehensive survey of important developments each year.

The information for each country falls into the following subdivisions:

I. General Introduction, giving population, birth, death, and infant mortality rates.
II. Recent Developments in Health Administration and Legislation.
III. Preventive Medicine and Hygiene.
IV. Curative Medicine.
V. General Problems (varying from public health propaganda to the housing question).

The stress laid on each of these topics varies according to conditions in the several countries. In Greece, for example, the problem of social and economic adjustment is of paramount importance. The forced removal from Turkey of hundreds of thousands of Greeks, together with considerable immigration of Greek and Armenian refugees from Bulgaria and southern Russia, has proved a heavy drain upon the limited resources of the country. The unfavorable circumstances in which these newcomers were forced to live made outbreaks of disease inevitable and measures of prevention and control difficult.

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* Review of International Health Year-Book, 1924. League of Nations. Health Organization. Geneva, 1925.

The countries represented in the Year-Book may, broadly speaking, be divided into four groups:

Neutral countries in which the scope and character of health activities were not seriously disturbed by the World War.

Belligerent countries, like France and Germany, which have resumed activities interrupted by the War.

Other belligerent countries which have not as yet completely recovered from the effects of the War. They are still obliged to concentrate their energy in combating epidemic and infectious diseases—an aftermath of the War years.

And, finally, countries which were born or resurrected after the peace of Versailles and in which public health work is only beginning. In Yugoslavia (the Kingdom of the Serbs, Croats, and Slovenes), for example, "the most serious difficulty is clearly due to the fact that the general intellectual level of the population is extremely low and that the people are totally ignorant of any rules of social or individual hygiene." Public health in such a country cannot, therefore, be expected to be so comprehensive as in a country with a long established health organization.

Births, Deaths and Infant Mortality.—Statistics of births, deaths and infant mortality are given for all countries except the Kingdom of the Serbs, Croats, and Slovenes. The year for which the figures are given varies and for some countries (France, Finland, and Rumania) only totals, not rates, of births and deaths are given. The latest figures for France are for 1919; Austria, Belgium, Czechoslovakia, Esthonia, and Greece give figures for 1923; and the rest of the countries for 1924. Greece gives rates based upon data for the ten most populous towns; Poland has statistics for three provinces and the larger cities only.

When the figures are compared, one notes the very low infant mortality rates of the Scandinavian countries, and the high rates of Russia, Bulgaria, Hungary, and Czechoslovakia. The rates in Russia were, however, higher before the War than they are now; in Moscow the infant mortality has dropped from 268 to 163 deaths under 1 year per 1,000 births, and in Leningrad from 247 to 138. Infant mortality rates in general are difficult to compare, because of the unlike definitions of a stillbirth. In some countries infants who die within several hours, or even days, after birth are not included in the infant mortality. General death rates have declined greatly since the War in all countries.

Epidemic and Infectious Diseases.—A record of the prevalence and methods of control of the more important epidemic and infectious diseases is given for each country with comparative data for other years. The venereal diseases, tuberculosis, and cancer receive special attention. The statistics are seldom comparable, since the degree of completeness of reporting of cases cannot be determined, and death rates are seldom given. However, the whole presents a good picture of the relative importance of these diseases in each country, and the progress that has been made in their control. Mortality from tuberculosis has declined, though in Hungary, Poland, and Austria the rates are still very high: 400 per 100,000 population in Budapest in 1924; 300 in Hungary as a whole; 255.1 in Warsaw; 350.4 in Lwow; and 205.9 in Austria. While the rate in the whole of Latvia is only 117, in Riga it is 214. These are astonishingly high when set against the rates in western Europe and the United States. In 1924 the rate in the State of New York was only 94.

A table of mortality from cancer in Warsaw in the last forty years shows the very interesting fact that, contrary to the experience of other countries, the death rates from cancer have not increased. No explanation is offered, but statistics for other large cities of Poland similarly show no increase, the rate in Lodz having decreased considerably in the last five years.

General Problems.—The budget for health is usually given, sometimes in bewildering detail. The number of doctors and medical students, nurses and midwives, hospitals and laboratories, depict the public health equipment of each country. The control of foodstuffs and biological products, housing, sewerage and drinking water, physical education, the cost of living, all receive consideration.

The first issue of the report is, as published by the Health Organization, necessarily in the nature of an experiment; and a second will undoubtedly show changes in content and treatment. The reports for the most part are clear and concise, and the volume is well indexed. The Year-Book is an important contribution to current international public health literature, and as such is of value to people interested in the health of all members of the human family.

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LEGISLATIVE COMMITTEE'S REPORT ON CHIROPRACTIC

The joint legislative committee on chiropractic, whose hearings were reported in this JOURNAL, (January 15, p. 85; and February 15, p. 201), is printed on page 375 of this issue. It is entirely colorless and will probably not be satisfactory to either the chiropractors or the medical profession. However, from the point of view of the doctor, the report has one element of satisfaction, in that the cultists failed to secure a formal recognition. The cultists had scored a point last spring when they received the recognition of an investigation by a legislative committee. They now have neither the approval of a representative group of legislators, nor the glory of martyrdom which would have followed a condemnatory report.

COUNTY DEPARTMENTS OF HEALTH

Governor Smith's hearing on the establishment of County Departments of Health, reported on page 314 of the March 15 issue of this JOURNAL, has aroused interest in the movement, although there are misapprehensions regarding the proposed plan. The decision regarding the establishment of the County Departments rests with boards of supervisors, and they are influenced by what they consider to be objectional features quite as much as by those which are desirable. Misapprehensions are as potent as proven facts, and will prevail when future conditions which cannot be guaranteed are considered.

Most members of the boards of supervisors are also presidents of the boards of health of townships, and know a considerable about public health work. They realize the incompleteness of the work of local health boards and health officers, and the geographic limitations of their jurisdictions, as, for example, in the promotion of pure milk supplies, and the control of travel by persons infected with contagious diseases. They also frequently express the wish that the State should assume the control of conditions in which no immediate menace to health is evident. They agree that the county can accomplish many public health objects which towns and villages cannot attain. They believe in a County Health Department as an abstract proposition. Why do they not adopt it for their own counties? The answer is the prevalence of three misapprehensions.

First, the members of boards of supervisors do not have a clear conception of what a County Department of Health should do, and no official designs have been announced. However, Dr. Paul B. Brooks, Deputy Commissioner of Health, devised an unofficial outline which was published on page 985 of the December 1st, 1926, issue of this JOURNAL. Dr. Brooks outlined eight general duties as follows:

1. Inspection of dairies.
2. Inspection of camps, boarding houses, and maternity houses.
3. Control of nuisances affecting more than one local district.
4. Control of contagious diseases involving more than one municipality.
5. Scientific epidemiological work.
6. Promotion of county-wide projects, such as laboratories, and diphtheria immunizations.
7. Assistance to local health officers.
8. Conducting a continuous educational campaign.

This is a definite program, and one which members of local boards of health can understand. If it were formally announced, the boards of supervisors would have something tangible to consider, and would know what they are asked to adopt.

The second misapprehension is that regarding the relation of the present local boards of health to the County Health Department. Members of boards of supervisors seem to have the impression that local health boards will be abolished and all forms of health work will be done by the county. Possibly this impression is strengthened by the proposal of Commissioner Nicoll, made at the Governor's hearing, that the boards of supervisors be permitted to abolish a local board of health. Two facts are in evidence that the abolition of local health units is not contemplated:

(a) All the published plans retain the boards of health and health officers in the towns and villages, and make the County Department complemental to local units.

(b) No County Department plan has considered the control of local conditions which affect one municipality only; but each town and village is responsible for its own standards of civic housekeeping.

The third misapprehension is that regarding the cost of an efficient County Department of Health. Commissioner Nicoll outlined an efficient county unit to cost approximately $20,000 annually, but the impression made by his figures was overshadowed by the fact that the Cattaraugus County unit is costing $100,000, or five times the estimate of Dr. Nicoll. The supervisors argue that since the Cattaraugus demonstration has been widely advertised as a model in form and efficiency, therefore Dr. Nicoll's estimate is merely a preliminary estimate which will be raised in a very few years to the budget of Cattaraugus County.

The answer to the argument of expense is that the Trustees of the Milbank Fund, which has financed a large proportion of the expenses of the demonstration, have made intensive studies, and have carried on wide experiments which could not be supported with public funds. The leaders in the Cattaraugus County unit do not expect that every phase of its public health work will be continued; but when the Milbank Fund withdraws its support, the budget will approach that proposed by Dr. Nicoll.

County Health Departments are essential in order to bring rural public health work up to city standards. Their attainment will depend largely on two conditions: (1) the development and statement of a definite economical plan of organization and activities, and (2) an active campaign of publicity and education of both the medical profession and the people.

These two activities may properly be developed by the Public Relations Committee of the Medical Society of the State of New York.

THE FIELD OF ORGANIZED MEDICINE

Organized medicine means societies whose members are physicians and whose purposes are directly connected with the practice of medicine in some form

The medical profession means physicians collectively in distinction from physicians as individuals. The term is vague and impersonal, and when a physician expresses his views on a subject, the people are likely to accept his dictum as that of the majority of other physicians. Doctors have, therefore, banded themselves into societies in which medical problems are discussed and standards of action are adopted and promulgated. The medical society is, therefore, the incarnation of the medical profession. It is the tangible body in which the soul of scientific medicine resides. The medical society in modern health work is as essential as individual family doctors.

Medical societies have characteritics as varied as those of individual doctors, but the standard organization in which all physicians may be active is that comprising the county, the state and the nation. The county medical society is the accepted unit which represents the medical profession in general matters pertaining to health; while special societies, such as the Society of Medical Jurisprudence, represents the physicians who are specialists.

Organized medicine has a three-fold field of service:

1. To physicians themselves.
2. To medical science.
3. To the people whom the doctors serve.

The appeal of a medical society to physicians is either individualistic or social. The immediate, tangible benefits to be had from a county society are scarcely more than malpractice defense and a subscription to the State Journal of Medicine. These benefits are wholly inadequate to attract physicians of an intensely individualistic nature into a county society. To one who lacks the social temperament, the medical society can make no appeal, although he may be a skilled physician, a conscientious student, and a successful practitioner. But the majority of doctors are social and delight in their associations with one another. They desire to assist and to be assisted when dangers threaten; they wish to receive and impart medical knowledge, and to inspire and be inspired in the practice of the healing art. They are attracted to one another by a strong fraternalism in the possession of living secrets which are mysteries to the uninitiated. The greatest personal satisfaction which a doctor gets from his medical society is that of association with kindred spirits, and of giving as well as receiving.

The second field of service of a medical society is that of scientific medicine, which may be either individualistic or social. Every doctor wishes to know what to do when he is confronted with a specific condition. He was formerly satisfied to memorize a list of names of diseases together with the drug or procedure which was good for each. This was individualistic medical science. But the modern doctor is animated with the more social desire to promote scientific medicine. Abstract ideas are among the strongest motives that actuate men. Scientific medicine is the ideal which has always actuated physicians, and has led them to found medical societies. To be recognized by one's professional brethren as the discoverer of a new fact in medicine gives a thrill which compensates a doctor for weary hours of toil, and permits him the further satisfaction of donating it freely to his colleagues.

The county medical society is a potent agent in the promotion of scientific medicine. It is the forum where a new medical idea receives its final test of whether or not it can be put to practical use by the great majority of physicians.

Scientific medicine owes much to the rank and file of family doctors. They are the field workers to whom first come the patients who afterward constitute cases reported by renowned specialists; and it is family physicians who test new discoveries under every conceivable condition of actual practice. Every member of a county medical society shares in the satisfaction of promoting the cause of scientific medicine.

The third field for organized medicine is the people whom doctors serve. This field, too, may be individualistic or social. It is individualistic when medical service is rendered only to those who seek the doctor, bearing gifts. But physicians now recognize the duty of putting medical service within reach of every person. How to do it will never be solved by doctors acting individually; its solution must come through medical societies.

At the present time the most acute problem before the Medical Society of the State of New York is that of giving the best possible medical service to every person. Its solution involves consultations and agreements with non-medical organizations, and the adoption of new methods of procedure adapted to modern conditions. The problem is not scientific, for the knowledge is already available which, if applied, would cut human sickness and suffering in half. The problem is social and economic, and agencies along these lines must co-operate with medical societies in devising means by which physicians can apply their ministrations with the maximum benefit.

SPINAL ANESTHESIA IN THE REDUCTION OF FRACTURES

The reduction of fractures with malposition of the broken ends often requires some form of anesthesia, either local, or spinal, or general. The two-fold object of the anesthesia is to prevent pain, and to secure muscular relaxation. Sensory anesthesia is readily attained, but it is not sufficient if the muscles are contracted and tense.

Local anesthesia is often effective in preventing pains, and sometimes it breaks the reflex arc which produces muscular contraction.

General anesthesia removes the influence of the brain upon the muscles, but a dangerously large amount of ether may be required to abolish the spinal reflexes completely.

Spinal anesthesia is theoretically ideal, especially for overriding fractures of the leg, for it prevents the passage of all nervous influences. It paralyzes all the nerves, sensory, motor and sympathetic. The anesthetic takes effect at once, and the relaxation which it produces is complete and offers no resistance to the surgeon as he adjusts the bones. From the point of view of "setting" a bone, spinal anesthesia is satisfactory. Its use will depend on the condition of the patient, and the skill and preference of the operator.

STRICTURE OF THE URETER

When ovariotomy was introduced, it was the favorite operation for the relief of pain in the lower abdomen; and then a generation ago appendectomy took its place. Within the last five or ten years it has become known that many pains which simulate those of diseases of the ovary and appendix are in reality due to stricture of a ureter.

Ureteral stricture is far more common than is usually supposed, and it is probably overlooked more frequently that it is diagnosed.

Practitioners of medicine are likely to have appendicitis always in mind and to diagnose the condition when it exists. It has also happened that an operation discloses a healthy appendix and that later a strictured ureter is found to be the cause of the pain. The time has come when the ureter is to be borne in mind equally with the appendix as a cause of abdominal trouble. The cystoscope and the ureteral catheter are now available in the hands of nearly every surgical consultant, and there is small excuse for failure to use them in doubtful cases.

Ureteral stricture is discussed in the leading article in this Journal.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Surgery of the Heart: The surgery of the heart seems to be in about the same state of progress that it was in 1902, if one may judge by the following editorial in the Journal for April, 1902:

"It is not many years since the medical world was startled by the report of a surgeon of repute that he had invaded the region of the heart, entered the pericardium and actually stitched up a deep wound in the walls of the heart itself. His example has been followed since by others and such work is no longer regarded as the work of a reckless enthusiast; on the contrary, the tendency is to extend the sphere of operations along these lines.

"Sir Lauder Brunton, of St. Bartholomew's Hospital, London, a medical man, has conceived the idea of operating upon the living subject for the relief of the contracted mitral orifice. He has not yet had the temerity to operate upon the pulsating human heart, but has performed a series of experiments on the lower animals, thereby endeavoring to justify the procedure, at least experimentally.

"For the division of the values of the heart a knife, like a tenotomy knife, is used with a cutting edge of about one half-inch. The valve is divided with comparative ease through the thickened edge, thus elongating the natural opening.

"Dr. Brunton thinks that the good results that have been obtained in the treatment of wounds of the heart justifies one in hoping that ere long good results may be obtained in operating upon mitral stenosis.

"It seems rather strange that such a bold suggestion should come from a physician rather than a surgeon. But the risks and the dangers attending such an operation would, doubtless, have to be looked in the face for many a day before a surgeon will be found bold enough to put it into execution."

MEDICAL PROGRESS

Double Tachycardia, Auricular and Ventricular, Due to Digitalis.—Tasker Howard, writing in the *American Journal of the Medical Sciences,* February, 1927, clxxiii, 2, says that, although the popularity of large doses of digitalis has greatly enhanced the value of this drug, the danger of overdosage is a very real one. The occurrence of an A-V block as a result of digitalis has long been well known. A number of authors have pointed out the danger of mistaking the rapid, regular, cardiac action of ventricular tachycardia due to digitalis for an auricular flutter, for which more digitalis would be indicated. Howard reports the fatal case of a woman, eight months pregnant, whose pulse was 168 and quite regular except for recurring waves of somewhat more rapid action which appeared to be of sinus origin. The electrocardiogram showed a regular series of P waves recurring at the rate of 195. This represents an auricular tachycardia originating in an ectopic focus in the auricle. There was complete A-V block and a perfectly regular series of ventricular beats occurring at the rate of 160 and showing a normal "supraventricular" form. The ventricular tachycardia evidently originated in a focus lying between the A-V node and the bifurcation of the bundle. This combination of auricular tachycardia, A-V dissociation, and ventricular tachycardia seems to be a characteristic digitalis effect and should arouse the suspicion of overdosage with the drug. The occurrence of a rapid, regular pulse following the administration of drugs of the digitalis class should be studied by the electrocardiograph before one proceeds further with their administration.

High Blood Pressure in the Young.—O. Moog and K. Voit state that they have recently had under observation a relatively large number of young folk with hypertension. Within the space of 15 months they had observed 16 subjects between the ages of 16 and 28 with blood pressures ranging from 140 to 215. Of this number 10 showed anomalies of constitution. There was no reason for thinking in this connection of presenility, but instead of this an hereditary or congenital factor could be invoked. There is supposed to be an exaggerated response to adrenalin in young hypertonics, and of nine subjects tested by the authors in this respect but two showed a lowered response. Cardiac hypertrophy is very rarely recognized clinically in this group and but two of ten tested showed increase in the basal metabolism. Of several patients whose cases are given in detail the youngest was a boy of 16 whose systolic pressure varied considerably, sometimes reaching 170. Examination showed nothing abnormal from the clinical angle although the basal metabolism was elevated 20 per cent. There was no evidence of thyrotoxicosis although the pulse, even at rest, did not go below 100. No test with adrenalin is mentioned. Any complaints on the part of the patient seem to have been purely subjective. The systolic pressure was not uniformly high and at times it was normal for the age period. The patient was not treated. In some of the other histories drugs were given solely in the interest of diagnosis, to determine what would bring down the pressure or aggravate it. Adrenalin usually produces a prompt increase in an ordinary blood pressure while caffeine may lower it. Lumbar puncture sometimes lowers the blood pressure. In certain cases caffeine raises the pressure while adrenalin lowers it at first, this change being followed later by an increase.—*Muenchener medizinische Wochenschrift,* January 7, 1927.

Leucemia or Sarcoma of the Blood.—Sydney M. Cone, writing in the *Archives of Surgery,* February, 1927, xiv, 2, emphasizes the resemblance of myeloid leucemia to sarcoma and reports two cases which supply additional evidence that the leucemias may be regarded as sarcoma developing in a fluid medium. In both cases necropsy revealed chronic myeloid leucemia. In these cases the myelocytes were seen keeping their place in blood vessels in an orderly way, but here and there—in the brain, liver, intestine, spleen, serous membranes, and bone—there was a break and invasion occurred as in sarcoma elsewhere. The bone demonstrated masses of cells of a specific kind in the marrow. Here there were masses of large myelocytes (15 to 20 mm.) with lobulated nuclei and a few with single nuclei in which nuclear division (caryocinesis) was evident. Vessel destruction and absence of other elements of the marrow were evident. There were no other cells (osteoblasts, endosteal or connective tissue cells) lining the bone, except in the temporal bone in one case in which some of the spaces were lined with a vascular myxomatous tissue. Bone absorption by direct action of the tumor cells was noted, and there was likewise proliferation of the bone cells as seen in other sarcomas of bone. It appears that any of the mesenchymal cells of bone and marrow may take part in the formation of leucemic cells. In explaining the origin of sarcoma from marrow, bone, reticular, endothelial, or other mesenchymal cells, Cone says that the cell stimulated to the point of embryonal activity and appearance (in sarcoma and cancer) remains at this stage of its life history and continues to multiply indefinitely. It is easily conceivable that this process may be stimulated or actually produced by infections. There is evidence showing that various infections are associated with the leucemias. In several hundred necropsies Cone has seen the myelocytes multiplying in infections and in poisoning by wood-alcohol, carbon-monoxide, phosphorus, and cantharides, and he has also frequently noted great increase in the normoblasts and bone-cell multiplication. In leucemia, as in sarcoma, the cell does not complete its development. It acts like a malignant growth clinically and its morbid anatomy and histological pathology indicate that it is of a sarcomatous nature.

Diagnosis and Treatment of Ankle Sprains.—V. W. Murray Wright takes exception to the indiscriminate strapping of ankle sprains without any regard as to what ligaments have been injured. The sprain is more often the result of inversion than of eversion of the foot, the external and anterior ligaments being, in consequence, most often involved. The ankle should be observed and any abnormality of position, size, or appearance noted, and whether effusion is below the malleolus or anteriorly or posteriorly at the weakest points. The patient is asked to place his finger on the spot that hurts most. Invariably the finger falls directly on the injured ligament. The area pointed to is then tested by inversion, eversion, extension, and flexion to learn if more than one ligament is involved. The foot should be so placed as to overcorrect the injured ligament; if the foot is then in the position of greatest comfort, the diagnosis is correct, and the foot may safely be immobilized in this position. Bandages cannot maintain immobilization. Adhesive plaster serves the purpose much better for at least 80 per cent of the cases. The adhesive strips used by the author are 24 inches long and 1½ inches wide. Each succeeding strip overlaps the other one-half its width, and a short strip is placed at right angles over the finished ends. The method of strapping must be suited to each case individually. The straps are left in place for at least five days; if there has been little swelling and the foot has not been used too much they may be left on a week before new ones are applied. Moderately severe sprains should be strapped for a week or two; then an elastic ankle support should be worn for two weeks. Severe sprains and sprain fractures should be immobilized by moulded plaster splints. If seen within four to six hours after the injury has occurred, cold applications will check the amount of effusion. After this period heat will promote absorption of the exudate and relieve pain. The removal of weight-bearing for at least twenty-four hours is the first and best remedy. In severe cases crutches should be used until the ligaments are well under way to repair.—*Therapeutic Gazette*, January 15, 1927, vol. li, 1.

The Bacterium Causing Rheumatic Fever and the Therapeutic Action of Its Specific Antiserum. — James Craig Small (*American Journal of the Medical Sciences*, Jan. 7, 1927, vol. clxxiii, p. 1) describes a streptococcus which was isolated first on April 5, 1926, from a blood culture of a patient with acute rheumatic fever, and later from the throats of other patients with rheumatic fever. This microorganism is capable of producing characteristic arthritic and cardiac pathology, including Aschoff nodules in rabbits. The organism is a spherical Gram positive coccus which in fluid medium yields diffuse growth and shows short chain formations. It is readily stained by the ordinary aniline dyes. It is nonmotile, aerobic, and facultatively anaerobic. It is of rather constant, uniform size, varying from 0.7 to 1.2 μ in diameter. The optimum temperature for growth is 37° C., though growth at lower temperatures occurs. It shows a characteristic growth on blood agar. This organism has been designated as the *Streptococcus cardioarthritidis*. With this species of streptococcus a therapeutic antitoxic serum has been prepared, first in the rabbit and then in the horse. The administration of this serum in proper dosage in nine cases of rheumatic fever has been followed in a very striking manner by improvement of the outstanding clinical symptoms—pain, tenderness, swelling, and stiffness of the joints. Vaccines of the organism have been used with benefit in a certain number of patients with subacute cardioarthritis or with chronic arthritis. They have failed to produce benefit in other cases of these conditions. On the basis of his observations Small regards this microorganism as the cause of rheumatic fever.

Transient Hepatic Acholia.—Max Einhorn calls attention to a type of transient acholia which he believes is not so rare as it appears to be. He reports the case of a man who attended a banquet, ate sparingly, but afterward drank five or six glasses of ice-water. During the night he suffered an attack of watery diarrhea, without a trace of bile, fecal odor, or disagreeable sensations in the abdomen. This type of diarrhea indicates a disturbance of liver function. The watery stools with unchanged food in them ejected every half hour, in combination with partially suppressed urinary function pointed to rapid passage of the contents with failure of digestion and absorption. The hepatic insufficiency probably caused this rapid unloading of the alimentary tract as a safety measure. For this reason the condition could be designated "transient hepatic acholia." The only discoverable reason for the disturbance was the drinking of large quantities of ice-water. Just as the liver can be brought to a higher temperature and increased activity by filling the stomach with hot water, it is to be expected that the ingestion of very cold water will lower the heat of the liver and lessen its activity. The diarrhea also served as a protective process by freeing the alimentary canal of all work and thus relieving the liver of its duty as supervisor and giving it the needed rest. The hypocholia in this case lasted three days when the liver apparently resumed its normal function. With attention directed toward this liver dysfunction, Einhorn thinks it will probably be met with more frequently.—*Southern Medical Journal,* January, 1927, vol. xx, p. 1.

Anuria Without Edema: Decapsulation.—E. Glass, a surgeon of Hamburg, reports the case of a woman of 60 who consulted him for joint pains and chanced to state that she was not passing any water. The catheter showed an empty bladder. She was placed under observation and shortly after, the anuria persisting, developed a chill followed by rise of temperature. Abdominal palpation showed a tumor in the right renal region. Blood pressure 135. Professor Korach in consultation hesitated to make a diagnosis of nephritis. The temperature was probably due to a left-sided bronchitis of the lower lobe or a right pyonephrosis. Diuretics failed to start urine and the catheter failed to bring any away. On the tenth day of anuria an exploratory incision was made and the right kidney was found to be nearly normal in size; the slightly adherent capsule was rapidly removed and a retention catheter inserted. Defervescence followed and the urine began to collect. The pulmonary lesion was now recognized as an apyretic bronchopneumonia. The urinary flow was not maintained and coma developed, relieved for the time by venesection. The patient succumbed to cardiac failure and although total autopsy could not be obtained the operation wound was opened and bits of both kidneys and the liver were removed. The microscope showed severe subacute extracapillary glomerulonephritis of both kidneys. The early assumption of reflex anuria of the left kidney was an error. The decapsulation did neither harm nor good. The case shows that renal pathology is still a dark subject and likewise the unsatisfaction of treating a case of such interest in a private house where the records—blood pressures for example—must often be incomplete.—*Deutsche medizinische Wochenschrift,* December 24, 1926.

Spastic Ileus—F. Colmers mentions the original cases reported in 1897 by Heidenhain. The affection may be acute, chronic, or postoperative. Diagnosis before operation is well nigh impossible. Merely to suspect it if the constitutional symptoms are favorable is treacherous, for we may delay operating until intervention is too late. The spastic condition is recognized at operation as one or more annular stenoses of the small intestine, or an entire segment of the small or large bowel may be contracted down to the thickness of a finger. In some cases operation alone seems sufficient to relax them, but operators have often seen fresh ones develop in the midst of the operation. Spastic ileus is nothing but one of a group of myospasms of the alimentary canal such as may be excited by any local irritant within the canal or by the act of laparotomy with the mauling about of the intestines by the operator. The phenomenon has also been seen in lead poisoning, influenza, hysteria, etc. The occurrence of these spasms however is not the same as spastic ileus, for the latter condition must be attained very rarely while myospasm of the intestine are doubtless extremely common. A special factor is necessary for myospasms to become ileus and this must be some liability of the autonomous nervous system. Spastic ileus is a surgical affection and must be treated by laparotomy which is largely an exploratory procedure, and if much meteorism is present an enterostomy should be done. Medical measures are useful for prophylaxis and atropine may be tried before laparotomy if the case seems subacute or chronic, but not in the acute form. The author is strongly opposed to the custom of giving eserine after operations to secure peristalsis because of the risk of setting up postoperative spastic ileus. Instead he would make use of atropine, chloral, etc.—*Muenchener medizinische Wochenschrift,* December 24, 1926.

The Danger of Infection About the Face.—J. William Hinton, writing in the *Annals of Surgery* for January, 1927, vol. lxxxv, 1, states that the complications which small furuncles around the upper lip and nares may produce are not generally recognized. In active hospital services one sees one or two deaths yearly from maltreated face infections. These fatalities do not result from medical procrastination, but from overzealous surgical intervention. Owing to its patency the facial vein favors septic absorption, and therefore any phlegmonous inflammation of the face following a poisoned wound is liable to set up thrombosis in the facial vein, and detached portions of the clot may give rise to purulent foci in other parts of the body. On account of its communications with the cerebral sinuses, these thrombi are likely to extend upward into them and so induce a fatal issue. Furuncles about the danger zone of the face should not be traumatized by squeezing or small incisions. It is best to treat all face infections conservatively. Heat is best used in the form of flaxseed poultices, which are preferable to wet dressings. If the patient has chemosis, hot boric compresses may be applied to the eyes. With conservative treatment the infection will usually localize, and frequently will spontaneously perforate through the skin or mucous membrane and the slough will be discharged. If the infection does not localize, an incision with a very sharp scalpel should be made, under general anesthesia, without traumatizing the area. The wound should not be packed with gauze, but a rubber drain should be inserted to hold the edges apart, and hot poultices should be applied.

The Carbon Monoxide Menace and the Cancer Problem.—Georgine Duden (*Canadian Medical Association Journal,* January, 1927, vol. xvii, p. 1) asserts that the ubiquity of carbon monoxide in modern life can hardly be overestimated. The exhaust gas from an automobile contains from 4 to 9 per cent, or 400 to 900 parts of carbon monoxide gas to 10,000 parts of air. A running car or truck puffs out one cubic foot of exhaust each minute. Other sources of the gas are domestic chimneys, factories, railways, steamers, defective gas fittings and heating apparatus. A concentration of 15:10,000 inhaled for a short time produces unconsciousness, which may prove fatal. A concentration of 6:10,000 causes fairly severe symptoms (headache, nausea, dizziness, weakness in the legs, and general lethargy), lasting from one to five days. Carbon monoxide creates a relative oxygen deficiency in the body. Loss of consciousness almost invariably follows a blood saturation of 40 per cent. Among the serious sequelæ of carbon monoxide poisoning have been noted activation of tuberculosis, pneumonia, alkalosis, diabetes, impairment of vision, gangrene of the extremities, and abortion in which carbon-monoxide could be demonstrated spectroscopically in the fetus. The physician who keeps the ubiquity of carbon monoxide in mind and inquires after gas fittings will reap a harvest of gratitude from a client in whom a low grade of poisoning is causing vague aches and miseries, whereas reference to "nerves" is likely to alienate the patient.

The relative oxygen deficit caused by the inhalation of a deadly gas is capable of upsetting the normal body chemistry, and the importance of chemistry in cancer research is generally recognized today; and attention has been called to the increase of cancer of the lungs, formerly considered a rare form of malignant disease. In this connection the author suggests that inhalation of irritating gases produced by automobiles, imperfect combustion of fuels, and industrial processes may be an important causal factor, although the difficulty is admitted of getting clear-cut evidence as to the effect of carbon monoxide on cell proliferation because of the complexity of the chemical processes involved in normal as well as in malignant growths.

Intestinal Ulcers and Strictures in Pernicious Anemia.—I. Zadek mentions the occasional discovery of these lesions at autopsy in cases of Biermer's anemia, and he raises the question of a casual connection between the blood state and disease of the intestine. In 1922 only eight of these cases were known to have been recorded. The author, however, has had four such cases in a total of 200 under observation, and gives them in detail with the following summary: There was no special type of lesion evident as the cases were respectively a stricture of the small intestine, a stricture of the colon, a large ulcer of the small intestine, and multiple ulcers in the same segment. The author, however, was able to show that, in three of the four cases at least, the lesions were tuberculous. The history of these cases showed a complete absence of any symptoms which could be ascribed to the lesions, and a diagnosis of the latter during life would have been impossible. One patient developed a diarrhea three months before death which may have been due to the presence of multiple ulcers of the small bowel. Could these lesions have had anything to do with the development of anemia? The age of the lesions or of some of them was not great enough to justify such a supposition. Neither was there anything to justify the much more plausible belief that the tubercle bacillus obtained a foothold in the intestine as a result of the greatly lowered resistance to infection. That intestinal strictures naturally favor the development and persistence of ordinary anemia may be true, but at present we can only reckon these lesions with various other gastroenteric alterations which have bgeen seen to accompany pernicious anemia.—*Muenchener medizinische Wochenschrift,* December 17, 1926.

LEGAL

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PREVENTIVE METHODS AS APPLIED TO LITIGATION

The trend of scientific thought is in favor of preventive medicine. Thus from responsible quarters, we have the advocacy of periodic health examinations. We have witnessed the enormous strides in prophylaxis, and the measures which are invented and applied constantly for public sanitation. In the domain of private practice too, the personal physician regards it increasingly as his duty not only to heal his patient when he is sick, but to prevent him from becoming ill.

The theory of preventive medicine is based on common sense. It is the recognition of the fact that it is better to prevent mishap than to cope with it after it occurs. Upon this doctrine rest all of the modern safety appliances, and the laws requiring the use of these by railroads, in factories and wherever workmen are engaged in hazardous occupations. If this preventive theory is sound in medicine and industry, it is of equal validity in law. Many cases have come to the writer's attention that with proper foresight might have been prevented. Ofttimes, actions would not be brought were those who bring them certain that the doctor was able conclusively to establish the use of proper procedure and practice. Then too, as we have so frequently stated heretofore, where Dr. A. is superseded by Dr. B, if the latter were to use a greater economy of criticism than is sometimes now indulged in, there would be less likelihood, as a result of the strictures made by Dr. B, that the patient would bring Dr. A into court as a defendant in a malpractice suit.

One of the means certainly by which a successful determination of a suit when brought would be made more likely is through the keeping and maintaining at all times of proper records. Frequently, the whole case will turn upon the question of what was the patient's temperature at a given day or hour. Very often, the writer has seen cases where the doctor was unable to establish this vital point because he either did not take or keep a record of the fact. The importance of records can not be overemphasized. This applies, not only in hospitals, but in private offices. A doctor should make a contemporaneous memorandum of each case he treats, which should contain the statement of his examination, diagnosis, treatment and prescription, as well as the history of the case when it comes to him. All of the vital points, such as temperature, pulse, respiration, pathological reports, etc., should be accurately kept and painstakingly preserved. There is tremendous probative force in a contemporaneous memorandum. Sometimes the possession of these things has been the means of winning cases that otherwise would have been difficult indeed to win.

Then there is the question of the transactions between the doctor and the patient. Take, for example, where Dr. A. decides to go on a vacation and puts Dr. B. in charge. In such a case, it is always necessary to give the patient notice of the intended absence and arrange for another physician to take one's place during his absence. Then too, ofttimes a question will arise as to the instructions given by a physician to his patient. It is the physician's duty to give the proper instructions. To fail in this or to give no instructions at all, if such a failure can be traced to a bad result, may render the physician liable. Where a doctor advises an operation or a certain course of treatment which the patient does not wish to follow, it would be the part of wisdom to give this advice in writing. It would then be impossible later for the patient to assert that such instructions never had been given. If proper instructions are given, and the patient fails or refuses to follow them, the doctor is not liable for such results as may ensue because of this.

Recently there was brought to the writer's attention a case involving roentgenology, wherein it was a vital point to establish that a certain X-ray picture which had been taken before the doctor had begun his therapeutic work was in fact the picture of the organ of the patient. This was disputed, and the physician was unable to establish it through his records. X-ray pictures should be carefully indexed and cross-indexed against the patient's name, and should be carefully preserved for at least five years after their taking, and for a longer period in the cases of X-rays of children. If difficulty is anticipated, it would be well to have the patient sign his name upon the X-ray picture, thereby identifying the same once and for all as his.

Various systems of record-keeping have been devised, and are in use. Doubtless some are better than others; but the kind that will assist the doctor is that which will show the necessary facts of the history of the case.

FRACTURE OF CLAVICLE AND CONDYLE OF THE HUMERUS—IMPAIRMENT OF FLEXION

An action was brought on behalf of an infant, a boy about nine years of age, charging negligence upon the part of the defendant physician in the treatment of a fracture. An action was also brought by the mother to recover for the expenses incurred in the treatment of the boy and for loss of the boy's services.

It was stated that on the 22nd day of April the boy had fallen in an areaway sustaining a severe injury to his right arm; that on that day the defendant as a physician was engaged to attend and treat the injury; that after examination the defendant diagnosed the injuries and stated that the ligaments, muscles and tendons of the boy's right arm were strained and torn, but that the arm was not broken nor any bones thereof, and he requested X-rays to be taken of the injured arm. In compliance with the request the mother had X-rays taken which she submitted to the defendant physician on the following day. After examination of the X-rays the defendant physician confirmed the previous diagnosis stating that there was no fracture of any of the bones of the arm and he continued to treat the boy for the strained and torn ligaments, muscles and tendons. That on June 22nd the mother caused the patient to be examined by another physician and at that time exhibited to the other physician the X-rays which had been taken on the day of the injury and which had been exhibited to the defendant physician. That this physician upon examination of the patient and the X-rays informed the patient's mother that a piece of the external condyle of the humerus was broken off, out of position, forward and ankylosed, thus interfering with flexion of the joint, and that in order to unite it in proper position it would be necessary to operate and remove this piece of bone; that such an operation was subsequently performed. It was charged that while the defendant was attending the plaintiff he failed to correctly diagnose the injuries and failed to give to the patient the correct and proper treatment for the injuries from which he was suffering. That he was negligent and careless and failed to exercise the proper care and skill in his treatment of the patient, and that by reason of such negligence the patient's arm remained in a broken condition until operated upon by another physician. That the patient was confined to his house and a hospital for some period of time and that his arm by reason of the delay in the diagnosis and the reduction of the fracture will be permanently injured. Damages in the sum of $25,000 were asked in behalf of the infant patient and $5,000 in behalf of the mother.

On April 22nd the defendant physician was called by another physician to examine and attend the infant plaintiff. At about 12.30 P. M. of April 22nd, the defendant physician, accompanied by the physician who had called him, examined the injured arm and after such examination made a diagnosis of probable fracture or dislocation of the elbow. The arm at this time was helpless and the elbow was swollen and extremely tender. The arm was held in a position of flexion at 90°. It was impossible to determine exactly the nature of the injury, but the presumption was that there was a fracture. The mother was advised that X-rays should immediately be taken and further advised of the probability of either a fracture or dislocation or both. The mother, a chiropractor, stated that she would have the X-rays taken by a friend of hers another chiropractor. After examination the boy's arm was put in a temporary fixation bandage so as to permit the boy being transported and the X-rays to be taken. At about 5 o'clock of the afternoon of April 22nd the X-ray films were examined by the defendant physician. The films were not very clear, but were sufficiently clear so as to show two conditions, a fracture of the clavicle in its middle third and a comminuted fracture of the humerus extending into the elbow joint with forward displacements of the condyles.

The physician states that it is customary in children up to the age of fifteen years, where there has been a bone injury, because of the difficulty of interpretation due to the lack of bone ossification, to take X-rays of the uninjured side and thereby be able to make a comparison of the X-ray films of the injured and the uninjured side. This was not done in this case, there being X-ray films of only the injured arm. The defendant physician, however, felt that the X-ray films were sufficiently definite so as to enable him to determine the proper method of treatment.

After examination of the X-rays the mother of the patient was advised that on the following morning an aneasthesia would be administered and a reduction made of the fractured humerus and clavicle. At about 10 A. M. of April 23rd, at the patient's home an anaesthesia was administered by a physician and the defendant then manipulated the fractured bones placing them apposition and the arm in a position of hyperflexion, the elbow and arm being fixed against the chest wall so as to immobilize the fractured clavicle. A starch bandage was applied. At this time and frequently thereafter the mother was told by the defendant physician that fractures of the elbow in children have a long and stormy course before function is restored and the elbow is back to normal. The physician saw the boy on the second and third days and at that time told the mother that in about ten days he would remove the bandage and begin movement of the elbow. On the ninth day after the injury the bandage was slit down and passive motion and massage of the elbow was begun. During the period between the application of the cast and the time when the same was opened up and passive motion begun, the patient was visited several times by the defendant and examinations made to make sure that the hand was not turned or that there was no nerve involvement. After the slitting of the cast and the giving of the passive motion and massage the cast was reapplied, brought together and held in place by adhesive strips. Two days later the same treatment was rendered and then gradually at more frequent intervals until at the end of about three weeks when the cast was entirely removed; passive motion was continued, extension greatly increased until the boy was able to extend the arm about 135° at the elbow joint. In spite of all efforts on the part of the defendant physician a greater extension than 135° could not be procured. The injured parts were bathed in hot water by the mother who also massaged and gave passive motion to the same.

Upon the advice of the defendant physician, during the first week in June the mother took the child to a well recognized physio-therapeutic physician. This physician after examination gave an unqualified favorable prognosis as to the restoration of function and advised the application of diathermic treatment. After six or seven treatments had been administered by the physio-therapist the boy was again brought back by the mother to the defendant physician, the mother being dissatisfied with the treatment of the physio-therapist claiming that she saw no improvement in the boy's arm and complaining that the boy was not receiving personal attention from the physio-therapist. The defendant physician then recommended another physio-therapist who, after examination gave a favorable prognosis and the boy continued under the care of this physician for about a month. After the boy had been placed in the care of this physician the defendant physician advised the mother that his treatment of the boy was ended and that further treatment would be given by the physio-therapist. Shortly thereafter the defendant rendered a reasonable bill to the mother for the services that he had rendered. The mother stated that she was unable to pay the bill because of financial stringency though she admitted the bill was reasonable and in the middle of July paid half of the bill. Nothing further was heard of the patient until some weeks later when the defendant physician saw the boy playing in the street and upon speaking to the boy, he told the physician that he was going to a hospital where they were going to stretch the arm.

The defendant physician thereupon by telephone inquired of the physio-therapist who stated that the boy had been operated upon by a surgeon. Nothing further was heard from the patient by the defendant physician until the following December when he communicated with the surgeon who had subsequently operated upon the boy. The surgeon after examination had made a diagnosis of excessive callus formation at the elbow and had operated to remove the callus formation. The operation was performed on August 22nd. According to the records of the surgeon the arm in December was in about the same condition as it was in the previous August.

The first physio-therapist to whom the boy was brought for treatment stated that he first saw the boy about June 15th; that after examination he gave him diathermia, massage and manipulation of the muscles of the arm and shoulder. That the treatment was repeated on June 25th, 27th and 29th. That after this last treatment the boy's mother notified this physician that she would not bring him back for further treatment. This physician advised the mother that he could improve the boy's arm if she would bring him back, but she refused to do so.

The second physio-therapeutic physician saw the boy on June 29th. He stated that he found a healed fracture of the elbow. He likewise gave diathermia, manipulation and baking. His treatment was repeated twenty-six times, the last treatment being given on August 12th. He suggested to the mother that the boy be given a series of treatments extending over a period of three months. The mother, however, refused to bring the boy back to this physician. At the time the last treatment was rendered to the boy he found that the motion of the boy's arm had improved and that he did not seem to have as much pain as he had when first brought to this physician.

The physician who was first called at the time of the boy's injury and who had called the defendant in, stated that at that time a diagnosis was made of a fracture of the elbow and that the boy's mother was then advised of the fractured condition of the elbow and also advised to have X-rays taken so as to confirm the diagnosis.

The surgeon who operated upon the boy first saw him on August 14th. Examination by him showed a fracture of the supercondyle of the humerus, displacement forward, the upper end of the fragment was blocked. The surgeon stated that he put the boy in the hospital and under an open operation removed a piece of bone which was blocking extension. After leaving the hospital the boy called at the surgeon's office for examination and treatment, his last call being in December, at which time the arm was found to be improved, no baking being done.

On April 13th, about a year after the injury a physical examination was made, at which time the examining physician found normal flexion of the left elbow, extension possible up to 170°, there therefore, being a 10° limitation of motion. On the posterior aspect of the elbow there is a three inch healed scar. The strength of the elbow was found to be normal. The boy stated that the elbow or arm did not bother him in any way.

After a two-day trial the jury rendered a verdict in favor of the defendant in both actions.

FAILURE TO DIAGNOSE APPENDICITIS RESULTING IN DEATH

On January 22nd the physician was called to attend a boy about nine years of age. Upon arrival at the boy's home he found him in bed with a temperature of 99°. The child complained of pain in the abdominal region. The entire abdomen upon palpatation was somewhat tender but there was no marked rigidity of the muscles, particularly of the right rectus. The doctor prescribed quinine, the application of a mustard plaster on the abdomen and a laxative, and that the child remain in bed. On the following morning, at about 10 o'clock he again called at the child's home. He found the child up and about the house with no temperature and was told by the parents that the child was feeling better. He again examined the abdomen by palpatation but found no rigidity of the muscles. During these visits the physician had in mind the possibility of appendicitis.

On January 24th at about 11 o'clock in the morning the child was again visited by the physician and upon examination found that the temperature had increased to about 100° and upon palpating the abdomen he found rigidity of the right rectus muscle and tenderness at McBurney's point. After this examination he made a diagnosis of probable appendicitis and advised the removal of the boy to the hospital and that he be placed under the care of a surgeon. At about 2 o'clock in the afternoon of that day, accompanied by the parents, the physician in his own automobile, took the child to a hospital and placed him under the care of a competent and capable surgeon. At the time the boy was taken to the hospital he was able to walk and was not complaining of any severe pain, and upon arrival at the hospital sat in a chair in the sitting room. The defendant turned the care of the child over to the surgeon and this was the last time that the child was seen by the attending physician, except that five or six days after the boy had been taken to the hospital while the physician was in the hospital he saw the child in bed, inquired of his condition, but did not examine or treat him in any way.

On January 24th, the day the boy was delivered by the defendant physician to the hospital an appendectomy was performed by the surgeon. The appendix was found to be ruptured and gangrenous and a drain was placed in. The boy continued to improve and got along all right for about two weeks and seemed to be about ready to leave the hospital for his home when he suddenly ran a temperature. Between this time and the day of his death on March 1st, the surgeon performed several minor operations breaking up intestinal adhesions. The surgeon had found that intestinal adhesions caused an obstruction of the bowels with a resultant infection from the excrement, causing a general peritonitis, resulting in the death of the child on March 1st. The death certificate was signed by the house surgeon at the hospital and gave the cause of death as acute appendicitis, ruptured (operation) intestinal obstruction, contributory cause general peritonitis.

In an action brought against the physician to recover for the death of the boy it was claimed that the defendant physician was negligent and careless and had failed to diagnose the true condition and recognize the fact that the boy when first seen by the defendant was suffering from appendicitis. It was contended that if the defendant physician had possessed the knowledge and skill of a practicing physician in his locality he would have made a diagnosis of appendicitis upon the first visit, the boy could have then been operated upon and his life could have been saved.

When the action came on for trial the plaintiff was unable by competent evidence to sustain the theory of his complaint and at the close of the plaintiff's case the action against the physician was dismissed.

NEWS NOTES

THE ANNUAL MEETING

The arrangements for the annual meeting of the Medical Society of the State of New York on May 9-12, 1927, in Niagara Falls, are nearly completed. All the meeting places are on Jefferson Avenue within a radius of one block and are as follows:

Niagara Hotel, situated at the corner of Jefferson Avenue and First Street.

St. Peter's Church, on the northwest corner of Jefferson Avenue and Second Street.

Prospect House, at the northeast corner of Jefferson Avenue and Second Street.

K. of C. Home, on Jefferson Avenue at the head of Second Street opposite the Prospect House.

Assignments of the Scientific Sections, Exhibits and Registration Places have been made as listed in the following table:

Section	*Building*	*Room*	*Capacity*
House of Delegates	Niagara Hotel	Ballroom	600
Medicine	Niagara Hotel	Ballroom	600
Cancer Exhibits	Niagara Hotel	Ballroom	600
Registration of Delegates	Niagara Hotel	*Mezzanine floor:*	
Dermatology	Niagara Hotel	Parlor A	125
Neurology and Psychiatry	Niagara Hotel	Parlor B	125
Pediatrics	Niagara Hotel	Parlor D	150
Cancer Papers and Discussions	K. of C. Home	Room A	350
Surgery	K. of C. Home	Room A	350
Obstetrics	K. of C. Home	Room B	250
Public Health	St. Peter's Church	Room A	200
Eye, Ear, Nose and Throat	St. Peter's Church	Room B	200
Industrial Medicine	St. Peter's Church	Room C	200
Registration of Members	Prospect House	Lobby	
Commercial Exhibits	Prospect House	Circular Dining Room and Lounge	

The principal meetings are as follows:

The House of Delegates meets Monday afternoon, May 9th, and Tuesday morning, May 10th.

A dinner of the members of the House of Delegates will be held at the Niagara Hotel on Monday evening, May 9th.

The Scientific Sections will begin at 2:30 P. M. May 10th, and continue during the morning and afternoon of May 11th.

The Cancer exhibits will be held May 12th, morning and afternoon.

Cancer papers and discussions, will be held May 12th at 2:00 P. M.

The annual banquet and ball will be held on Tuesday evening, May 10th, beginning at 6:30 P. M. in the ballroom of the Niagara Hotel. The price is six dollars per person including the dance. In addition to the regular addresses by the convention chairman and president-elect, there will be an address by William Ganson Rose of Cleveland, Ohio, nationally known advertising man and world traveller. Following the addresses there will be a short intermission when the room will be prepared for dancing. During intermission a Physicians' String Quartette under the leadership of Dr. A. J. Ragone of Buffalo, will play in the lobby of The Niagara. During the banquet and for the dance the famous Isle's Blues Orchestra from Colgate University will play.

ANNUAL MEETING

The Annual Meeting of the State Society will take place Wednesday evening, May 11th at 8:15 P. M. in the Chamber of Commerce Auditorium situated at 43 West Falls Street.

LADIES' ENTERTAINMENT

Preparations have been made for the entertainment of the ladies, according to the following program:

Mrs. William H. Hodge, Hostess, 324 Buffalo Avenue, Niagara Falls.

Tuesday, May 10th—2.30 P. M. Bridge Tea at the Shredded Wheat Plant. Compliments of the Shredded Wheat Company. Just preceding the bridge tea the ladies will be conducted on a special tour of the factory.

Wednesday, May 11th—Golf at the Niagara Falls Country Club. Bridge Whist and Tea. Prizes. The hour for this will be announced later. All ladies desiring to participate in the ladies' golf tournament should advise Mrs. Hodge. Buses will be provided to transport the ladies from the hotel to the club.

Thursday, May 12th—Mrs. Hodge has left this day for optional visits to the various plants, such as the Niagara Falls Power Company, Wallpaper Plants, Cellucotton Plant, etc.

The following entertainment has been prepared for the doctors. Wednesday, P. M.—Golf tournament at Font Hill Golf Club, Font Hill, Ontario. All doctors desiring to play in the tournament should make application for assignment to Dr. Carl G. Leo-Wolf, Chairman, 108 Buffalo Avenue, Niagara Falls, N. Y.

G. L. Bowie,
Manager, Convention Department,
Chamber of Commerce,
Niagara Falls, N. Y.

SCHOOL MEDICAL INSPECTORS

The State Medical Society meets this year at Niagara Falls on May 9th, 10th, 11th, and 12th. The program will contain much that will be of great interest and assistance to the physicians of the State. We are particularly anxious to interest our school medical inspectors to attend the coming meeting of the Medical Society of the State of New York. I hope you are planning to be present.

An informal dinner and conference will be held at 6 o'clock on May 11th at the Niagara Hotel. After the dinner several hours will be devoted to the presentation and discussion of practical problems. I hope you will reserve this time for an opportunity to meet with us. Please advise me either at Albany or at Niagara Falls of your intention to attend.

William A. Howe,
Chief Medical Inspection Bureau,
State Department of Education.

HOTEL ACCOMMODATIONS AT THE A. M. A. MEETING

Dr. Olin West, Secretary of the American Medical Association, has sent out a plea that the delegates to the A. M. A. shall make their reservations at once. Dr. West has engaged a sufficient number of rooms for all the delegates, at the Mayflower Hotel, Washington, D. C. Since the number of visitors will be very large, those who expect to come should make their reservations at an early date. Particularly Dr. West requests the delegates to inform him whether or not they wish to make use of the rooms which he has engaged at the Mayflower Hotel.

Dr. West writes:

"If you have already secured accommodations at some other hotel, or if for other reasons you will not need a reservation at the Mayflower Hotel, please advise me at your earliest convenience at what hotel your reservation has been made or what your address in Washington will be. If, on the other hand, you have not made arrangements for accommodations in Washington and desire to have one of the rooms we have tentatively reserved, please write at once to the Mayflower Hotel, Washington, D. C., requesting the manager to assign for your use one of the rooms tentatively reserved for delegates, and stating what State association you will represent as delegate. Request the hotel also to advise you that your reservation has been made. If you do not expect to attend the Washington session, inform me accordingly so that we will not interfere with reservations for others who may wish to attend and may desire to be accommodated at the Mayflower Hotel.

"As soon as you have secured your reservation, please be kind enough to report that fact to this office. The Mayflower Hotel has made rates of $5.00 to $12.00 a day for single rooms and $7.00 to $15.00 a day for double rooms, European plan. I sincerely hope that it will be possible for you to attend the meeting in Washington."

A COURSE IN MEDICAL BIBLIOLOGY

The Medical College of The Long Island College Hospital, Brooklyn, has inaugurated a course in "Medical Literature and Bibliography." In a number of schools the importance of bibliographical knowledge has been stressed by individual teachers, but so far as is known this is the first established course of this nature included in the curriculum of any medical school in the country. An attempt is being made to show the student the real value of literature which constitutes such an important part of the background of his work; and to teach him how to use a library. The lectures will be given by Mr. Charles Frankenberger, Librarian of the Medical Society of the County of Kings, whose wide knowledge of bibliography and of the relative values of medical literature can now be made available for the medical student as a part of his training. This course is also further evidence of the co-operation of the library officials of the Medical Society of the County of Kings, for they already have had created a special student membership with definite library privileges.

ALLOTTMENT OF STATE MONEY FOR PUBLIC INSTITUTIONS

The bond issue of $50,000,000 authorized by the State of New York, for additions to public institutions is allotted in four installments. The allowance of $12,500,000 for 1927 is distributed as follows:

Binghamton State Hospital:
Employee accommodations—$50,000.

Buffalo State Hospital:
Nurses' Home for 50 nurses—$160,000.

Central Islip State Hospital:
Buildings to replace wooden structures in North Colony—$600,000.

Creedmoor State Hospital:
Bakery, garage and superintendent's residence—$230,000.

Harlem Valley State Hospital:
Superintendent's residence and employee accommodations—$160,000.

Hudson River State Hospital:

Infirmary for 200 patients	$550,000	
Nurses' Home for 100	110,000	
Staff House	50,000	
Pavilion for Male T. B. cases	155,000	
		$865.000

Kings Park State Hospital:

Building for Occupational and Visual Therapy (Veterans' Memorial Hospital)	$250,000	
Attendants' Home (Veterans' Memorial Hospital)	175,000	
		$425,000

Matteawan State Hospital:
Superintendent's residence—$50,000.

Middletown State Hospital:
Reconstruction of pavilions Nos. 1 and 2 and annexes Nos. 1 and 2 and Talcott Hall—$1,500,000.

Napanoch:
Cell block for 200 and staff quarters—$500,000.

Newark State School:
Employee accommodations and staff quarters—$210,000.

Rochester:
Patient accommodations, employee accommodations and staff accommodations.
To complete the replacement of the Monroe Group—$200,000.

Rockland State Hospital:
To further development—$4,000,000.

Rome State School:
Staff accommodations—$50,000.

Syracuse State School:
Farm Colony at Fairmount—$250,000.

St. Lawrence State Hospital:
Employee accommodations and replacement of building for male tuberculars—$350,000.

Syracuse Psychiatric Institute and Hospital—$300,000.

Wassaic State School:
To further development—$2,000,000.

Willard State Hospital:
Psychopathic reception service for 150—$600,000.

10,300,000 VACCINATIONS FOR SMALLPOX WITHOUT A SINGLE REPORTED CASE OF SYPHILIS

It has come to the attention of the undersigned that false statements are being circulated, that have caused some people to believe or fear that vaccination against smallpox may cause syphilis. Since the activities under our charge furnish direct evidence in refutation of this idea we have considered it our duty to issue a statement that syphilization as a result of vaccination does not occur.

Before the discovery of smallpox vaccine, the only protection against the dangers of smallpox was by inoculating a person intentionally with the disease and thereby producing, in general, a milder attack than that contracted when smallpox was caught in a natural manner. In this way the inoculation of syphilis along with smallpox, or even of syphilis instead of smallpox was possible. This possibility also existed when vaccination first supplanted smallpox inoculation, and was performed, as was smallpox inoculation, from the arm of one human subject to another. Cases of syphilis following inoculation or vaccination with human vaccine were, nevertheless, extremely rare. Syphilis, however, is a disease confined in nature to the human species alone, and as soon as the use of calf vaccine instead of human vaccine became universal *the possibility of transferring syphilis by vaccination was entirely done away with.*

Since 1917 the United States Army has vaccinated approximately 4,700,000 members of its personnel; the United States Navy has vaccinated approximately 950,000 members of its personnel; and of these 5,650,000 persons, *not one* of them ever developed syphilis as a result of vaccination. In not one of them was there ever any suspicion of syphilis in connection with vaccination. During this same period, the United States Public Health Service has also vaccinated 2,918,748 persons in carrying out its quarantine, immigration and hospital work. While the Public Health Service has not always had the opportunity of following up these vaccinations, as is carefully done in the Army and Navy, no one has ever alleged that any particular individual vaccinated by the Public Health Service, has contracted syphilis as a result of vaccination.

During the past ten years more than 2,000,000 persons, including school children, have been vaccinated by State and local health authorities in cooperation with the United States Public Health Service, making a grand total of 10,568,748 vaccinations recorded by the Government medical services, and not one of the undersigned has ever received an allegation or a statement charging that any particular individual of this number has contracted syphilis as a result of vaccination. In fact, there has never been reported anywhere a case of syphilis attributable to vaccination following the use of bovine smallpox vaccine.

Smallpox vaccine is a standard medicinal product, the quality of which is prescribed by the United States Pharmacopœia and as such is subject to the provisions of the Pure Food and Drugs Law. Furthermore, smallpox vaccine, together with other vaccines and serums for human use, has been deemed of such importance by the Government that its production for sale within the jurisdiction of the United States has been under the special protection of an Act passed July 1, 1902, antedating even the Pure Food and Drugs Law. Under this law all establishments producing smallpox vaccine for interstate sale must be licensed by the Secretary of the Treasury upon the recommendation of the United States Public Health Service, and the production is controlled by regulations drawn up by a board composed of the undersigned. These regulations provide for repeated inspections of the producing laboratories, for proper labeling, and for all safeguards which may be thrown about the making of such an important product. At present even the placing of the vaccine in the small tubes and the sealing of these tubes is required to be done in such a way that no hand, even though sterile, touches the vaccine. Repeated examinations of the product, for safety, are required.

This vaccine was used in the vaccination of the millions mentioned above and is exactly the same as that used by doctors in private practice in the vaccination of the general public throughout the United States.

(Signed) M. W. Ireland,
Surgeon General, U. S. Army.
E. R. Stitt,
Surgeon General U. S. Navy.
H. S. Cumming,
Surgeon General, U. S. Public Health Service.

REPORT OF THE JOINT LEGISLATIVE COMMITTEE ON CHIROPRACTIC

The purposes of this committee as set forth in the resolution of April 24, 1926, were:

1. To investigate and inquire into the practice of chiropractic in the State of New York.
2. To inquire into the nature and work of chiropractors within the State.
3. To propose such legislation as such committee shall deem necessary for the regulation and control of the practice of chiropractic in the State of New York.

Pursuant to said resolution, the following were appointed as members of the committee:

Senator John L. Karle
Senator Henry G. Shackno
Assemblyman Howard W. Allen
Assemblyman Frank M. Smith
Assemblyman John F. Reidy.

The committee did not organize until December 22, 1926, at which time Senator John L. Karle was elected chairman of the committee.

During the month of December, 1926, only two meetings of the committee were held.

By reason of the expiration of the term of office of Senator John L. Karle as Senator, his membership upon the committee expired on December 31, 1926, whereupon on January 17, 1927, Senator Leonard R. Lipowicz was appointed as a member of the committee and elected chairman in the place and stead of Mr. John L. Karle.

During the month of January and February, 1927, the commission held three hearings both in New York City and in Albany and took testimony of the witnesses in behalf of the chiropractors who desire that their practice shall be regulated by the statute on the one hand and on behalf of certain medical societies, education and health officials on the other hand, who oppose any legislation on the subject.

The subject matter of investigation by this committee is an important one. For a number of years an effort has been made to enact legislation legalizing the practice of chiropractic in the State of New York. Sufficient time has not elapsed in which to give the subject matter the time and attention it requires.

In the consideration of this subject, necessarily the educational qualifications of those now practicing chiropractic must be included. The committee has as yet been unable to determine just what such qualifications should be.

The committee, therefore, makes no recommendation regarding the enactment of any legislation and submits to the legislature all the facts as above stated and the question as to whether or not the committee shall be given further time to the study of this work.

Editor's Note: Although the Committee made no recommendation regarding chiropractic legislation, yet the chiropractors pressed the passage of a bill which progressed in the Assembly so far as to be put in the Rules Committee where it remained when the Legislature adjourned.

JEFFERSON COUNTY MEDICAL SOCIETY

The following resolution was passed on March 10, 1927 by the Medical Society of Jefferson County:—

Whereas the use of contraceptive materials in a limited way seems about to be legalized, and

Whereas, the handling of such materials by retail druggists tends to indiscriminate sale directly to the public, and consequently to illegitimate and harmful use; and

Whereas, distribution directly from manufacturers or wholesalers to physicians—and to physicians only—would tend to control the use of these materials for proper and legitimate use,

Be it resolved, that this Medical Society of the County of Jefferson place itself on record as being strongly opposed to the distribution of contraceptive materials, especially the newer types, through local drug-stores.

Be it resolved, that not only will we ourselves refrain from asking local stores to stock such supplies, but we will endeavor, by every means, to discourage and to eliminate all middlemen from handling these dangerous products.

Be it further resolved, that a copy of this resolution, together with copies of the letters concerned, be sent, through the President of our District Branch, to the Council of the State Society, and another copy to the Editor of the State Journal, in the hope that this matter may be brought to the attention of every county society.

QUEENS COUNTY MEDICAL SOCIETY

The regular meeting of the Medical Society of the County of Queens was held at the Jamaica Lodge, I.O.O.F. No. 247, 159-29 90th Avenue, on February 25th, 1927 with President Joseph S. Thomas, in the chair.

The minutes of the January meeting, as published in the Bulletin, were approved.

The chair called the attention of the members to the Anti-vaccination Bill, introduced by Senator Kennedy of Queens and suggested that letters in opposition to the measure be sent to our representatives and assemblymen.

Attention was again called to the summer camp for the Boy Scouts of the Borough of Queens and the members of the Society were urged, so far as they could conveniently do so, to volunteer to spend one or more weeks in attendance at the camp.

The following applications for membership, having been approved by the Censors and recommended for election, were, on motion, duly elected by ballot cast by the Secretary:

Erwin Beckhard, M.D., 40-69 94th Street, Elmhurst, L. I.

Joseph Desane, M.D., 94 Broadway, Flushing, L. I.

Neil Fitch Forbes, M.D., 327 Jamaica Avenue, Long Island City.

Hyman Fried, M.D., 101-01 Flynn Avenue, Howard Beach, L. I.

Herbert Gordon, M.D., 179-B 66th Street, Arverne, L. I.

Victor W. Higgins, M.D., 115-61 Farmers Boulevard, St. Albans, L. I.

Jacob Kroll, M.D., 443 Jamaica Avenue, Long Island City.

Charles Edward Nagel, M.D., 3447 90th Street, Jackson Heights.

David Michael Raskind, M.D., 2906 21st Street, Astoria, L. I.

A. Xernes Rossien, M.D., 119-21 Metropolitan Avenue, Kew Gardens.

Geysa Sarkany, M.D., 22-11 29th Street, Long Island City.

Jack Sarnoff, M.D., 2407 38th Street, Astoria, L. I.

Harry King Stone, M.D., 6201 39th Avenue, Woodside, L. I.

James R. Waugh, M.D., 39 163rd Street, Jamaica, L. I.

The following scientific program was presented:

Paper: "Drug Eruptions," by George McKee, M.D. The speaker emphasized the necessity of always being on the guard for eruptions due to drugs whether administered by mouth or injection. When in doubt, the drug may be discontinued, whereupon the eruption will disappear. Referring to arsenic, the appearance of an acute erythema is an important indication of danger in administration of the drug. The early appearance of an eruption in a salvasan administration, if due to the drug, is a warning against possible dangerous effects. Even herpes zoster may be due to arsenic. The earlier symptoms may be localized erythema becoming general with a development of a dermatitis of the macula-papular type. Even sodium cacodylate may produce acute skin manifestation. Arsenic may produce pigmentation without antecedent eruption which will be permanent or it may produce pigmentation following eruption which will not be permanent. Keratoses, usually on the palm of the hand, may be produced and these may develop into epithelioma.

Bromide and iodide eruptions were described as also their differential diagnosis. Eruptions due to hypnotics, luminal, veronal, atophan, also pyramidon and phenacetin were described. It was pointed out that at the present day the general use of phenolphthalein as a laxative was a common cause of skin eruption, the typical being macules widely spread, occasionally localized, sharply defined eruptions of reddish brown color, beginning as a redness, then changing to a reddish brown and finally to a brown which might be so dark as to appear almost black. The speaker cautioned physicians in prescribing drugs especially arsenicals and even bromides and iodides, to caution patients against their continuous use excepting under competent observation. Also in inquiring as to drug ingestion, it was necessary to do more than to make casual inquiry, as occasionally patients were not conscious of or did not realize they were taking a drug which was objectionable thinking of it only as a tonic. The paper was illustrated by lantern slides.

It was followed by a discussion by Drs. J. Frank Fraser, Emil J. Knips, Genovese, Bender, Voltz, Sarkany and closed by Dr. McKee. Thanks were extended by the President to Dr. McKee for his interesting and valuable presentation.

Paper: "Difficulties in Differential Diagnosis of Jaundice," by Carl Boettiger, M.D. The speaker classified jaundice as obstructive, hepatic and hemolytic, and discussed the differentiation of these types with the aid of tests for liver functions.

Four cases were cited in which jaundice was the presenting symptom; in three of them tests for liver function were done. At autopsy, while the type of jaundice was confirmed, the actual diagnoses were all incorrect.

Two of the cases proved to be primary carcinoma, one hepatic cirrhosis with acute degeneration of liver parenchyma, and one a chronic interstitial pancreatitis with inflammatory occlusion of the common duct. Gross specimens of lesions were shown.

Discussion by Drs. E. E. Keet, E. J. Buxbaum, W. H. Barber, J. F. Fraser and closed by Dr. Boettiger.

Demonstration of New Instruments in Oto-Laryngology by Dr. A. J. Shekter.

At the end of the scientific session Dr. Buxbaum made an appeal for the widow of Dr. Coster Pendola, who had been recently murdered by the father of a child whom he had treated for diphtheria and the members were invited to contribute to a fund being raised in their behalf.

Collation.

Attendance 55.

E. E. Smith, M.D.,
Secretary.

MONROE COUNTY

The regular meeting of the Medical Society of the County of Monroe on March 15th, was devoted to the anti-diphtheria drive. The speaker of the evening was Dr. W. H. Park, Director, Bureau of Laboratories, Department of Health, City of New York, his subject being "History and Progress of the Present Drive Against Diphtheria." Dr. Park gave a very interesting resume of the progress in the control of diphtheria, showing graphically the changes in morbidity and mortality rates, with the introduction of antitoxin treatment and, more recently, of toxin-antitoxin immunization. From his exceptionally wide experience, Dr. Park produced statistics showing the great advance in the control of diphtheria, due to the recent methods of susceptibility tests and immunization, and expressed great optimism in the result of the present campaign.

Dr. C. G. Lenhart, Chairman of the Monroe County Anti-diphtheria Committee, reported on the progress being made in Monroe County. Dr. Lenhart stated that about one-third of the children in the county, exclusive of Rochester, have been tested and, when indicated, immunized since the active drive started in November, 1926, and that several town health officers had notified him of funds having been appropriated to inaugurate campaigns in their respective towns in the very near future.

Dr. G. W. Goler, Health Officer of the City of Rochester, spoke briefly on the work being done in the city and stressed the great debt owed to Dr. Park by all interested in this question.

Drs. F. W. Bush, J. F. Gipner, C. R. Pearson and L. Pulsifer were elected to membership.

J. P. Henry, M.D., Secretary.

THE DAILY PRESS

SMOKY NEW YORK

The air of New York City was full of smoke and soot during last year's coal strike. This year's air is clear as compared with that of last year, but it is still decidedly overcast. How smoky it is, is reported in the New York *Sun* of February 10, in an article describing a self-recording electric device that shows the intensity of the sunlight. One machine was located on a roof of lower Manhattan Island, and the other ten miles down the Bay at the Hoffman's Island quarantine station. The *Sun* says:

"Yesterday was a fairly bright day in New York but on Hoffman's Island it was a fine sunny day, with the intensity of the sunshine about twice what it was in Manhattan, according to the sunlight recorders. In the city few dense smoke clouds were visible during the middle of the day, and the sun could be seen with little trouble. But there was a haze, the result primarily of the smoke that had been poured out over the city earlier in the morning by factories, launderies, steam and electric plants, apartment and tenement houses, railroad trains and harbor vessels. Here for the first time in any newspaper a graphic sunlight report, measuring the sunlight in foot candles, is given with the previous day's weather report.

"Most New Yorkers considered yesterday a fairly clear day, especially in view of the many smoke-fog days the city has suffered from this winter, but the little machine on the roof of the Marine Hospital at 67 Hudson Street was able to record what the human eye could not."

Much was said in the newspapers about the effects of the smoke on health. The *Sun* of January 14 said editorially that the removal of the smoke would also remove one great cause of influenza, for "the fume-filled atmosphere is highly irritating to the bronchi. It causes coughs and renders the mucous membrane unduly susceptible to infection."

The *Sun* exaggerates the virulence of the smoke when it says:

"The most important immediate contribution Health Commissioner Harris can make to public well-being is to stop the defilement of the air we breathe, and it is a task which would not require extraordinary effort on his part or on the part of his subordinates."

The same editorial balances the suggestion of smoke removal against the theory of the spread of influenza by contact, and says:

"Commissioner Harris of the Health Department makes the entirely impracticable suggestion that in the season in which influenza is most prevalent sufferers from heavy colds shall be segregated. He knows that this cannot be done; even the autocratic powers of the department he heads cannot bring it about."

The suggestion of Dr. Harris is entirely right and influenza will never be controlled until it is adopted. The prevention of dysenteries by the control of the intestinal discharges seemed impractical half a century ago; but a half century in the future the human race will learn to prevent the spread of the excretions of the nose and throat as effectively as they now do those of the intestines and kidneys. When people learn to put less emphasis on sterile smoke, and more on germ-laded drops of nasal excretions, influenza will become as rare as dysentery.

SUICIDES AMONG COLLEGE STUDENTS

The newspapers have recently recorded an epidemic of suicides among college students—about twenty-five within two or three months.

The causes of the suicides are widely discussed in the daily press, especially by ministers of the gospel who know little of mental pathology. They usually give the cause as a lack of religion and all that goes with it, within the home and the church.

The *Sun* of March 9 quotes Bishop Anderson who spoke before the annual New Jersey conference of the Methodist Episcopal church, as follows:

"One of the contributing causes is the failure of religious instruction in the homes. Young people who grow to manhood and womanhood without any relations to vital religion will be sure to hold life cheaply.

"No people can be strong in public life if they are weak in private life. The home is the basis of organized society. Unless the home is belted in the basic virtues the nation is doomed.

"I would name as the second contributing cause of student suicides the strenuousness and tenseness of modern life. Our young people live too fast. They demand what they call a thrill. If they range the whole gamut of life before they are out of their teens they are likely to feel there is nothing left worth while. The demand for amusement is altogether out of proportion to the demand for the solid things which make for character and enrichment of the mind.

"The third contributing cause is the emphasis upon physical pleasures and material values. We have lost the vision of tomorrow. We must hark back to vital religion and downright godliness or we lose."

What Bishop Anderson really discussed was the failure of the preventive measures. The cause of the suicides is an unbalanced mind, usually an inferiority complex, with a feeling of failure in life. The modern church stands for inspiration in life, for the hope and expectation of Divine recognition, and for the glorious privilege of humble service. The church is therefore an antidote to suicidal tendencies, and is a means of treating the mental disease; but the causes of the disease lie in the realms of medicine, and the treatment belongs to the scientific psychiatrist.

VENTILATION IN THE HOLLAND TUNNEL

Physicians and engineers recognize the menace of the automobile exhaust in confined places and the tenfold danger from the fumes of a burning automobile. The new vehicular tunnel from lower New York City to New Jersey will surely be congested with automobiles giving off exhaust fumes of all degrees of virulence; and probably an automobile will catch fire in the tunnel. The engineers have considered this possibility and have made tests of the ventilation of the tube in the presence of a fire like that of a burning automobile. One of these tests is described in the New York *Times* of March 16 as follows:

"Mr. Singstad took his visitors into an air-tight exhaust fan chamber and showed them an eight-foot fan capable of pulling out the gases and bad air as fast as they accumulated. Two of these were turned on and the visitors descended to the tunnel, where they saw vents in the roof ten feet apart through which the used air escaped into the vent chamber, thence to be conducted to the great stacks in the ventilating building and blown into the outer air a hundred feet or more above the pavement.

Members of the party found difficulty in keeping matches burning long enough to light pipes and cigars as the air rushed in from both sides of the roadway. Flashlight powder smoke passed through the roof vent so quickly that it left no odor in the tunnel.

After the commissioners and engineers had walked through the section, and had inspected the fire and flushing hydrants placed at 240-foot intervals, as well as the niches for sand and chemical fire-fighting apparatus for fighting gasoline and oil fires, engineers set off two three-minute smoke bombs, which, Mr. Singstad said, would emit gas and smoke in a volume equal to that from hundreds of automobiles or a good-sized fire. A longitudinal current carried a little of the smoke up the tunnel and into the faces of the spectators, but most of it swirled to the roof and was drawn out. The air cleared completely within a minute after the bombs burned out."

ANCIENT DISEASES

Are decayed teeth, gout, and gallstones entirely modern diseases, and the result of luxurious living? The Brooklyn *Eagle* of March 10 discusses that question editorially, and says:

"Professor Arnold Sack of Heidelberg has gone through the stupendous task of making a pathological examination of 30,000 mummies from Egyptian tombs, according to a special Berlin dispatch to the New York *Times,* and one lesson from his work is that in all ages—the mummies dated from 4000 B. C. up to the Christian era—luxury of living has brought the same diseases to the luxurious: bad teeth, gout, gallstones and all the sequelæ of these modern afflictions that we know. It was easy to make the distinction, because the tombs of the wealthy, the noble, the powerful could not be mistaken. Mummies from the peasant class showed almost perfect teeth and few traces of uric acid ailments."

However, there is an erroneous premise in the argument. The bodies of only a small proportion of peasants who died were preserved as mummies, and only the strong and healthy achieved financial success to secure their mummification. Those who were defective died a lingering death in poverty and their bodies were soon dissolved. The mummies that remain are those of the rich; but diseases probably affected the peasant at a rate far greater than the rich.

BOOK REVIEWS

THE CARRIER PROBLEM. By K. C. PAUL, M.B.B.S. 12mo. of 102 pages. London and New York, Oxford University Press, 1926. Cloth, $1.75. (Oxford Medical Publications.)

This little book is a contribution to a field of great interest dealing as it does with one of the most important problems in the control of communicable diseases.

Special chapters are devoted to the question of Carriers in various Infectious Diseases including:

Enteric Infections, Diphtheria, Meningococcal Infections, Pneumococcal Infections, Streptococcal Infections, Acute Poliomyelitis, Bacillary Dysentery and Cholera.

The volume brings the literature of the subject up to date and is therefore a welcome addition to the study of epidemiology, a domain in which our knowledge is still meagre and in which there is great opportunity for further work.

JOS. C. REGAN.

INTERNATIONAL CLINICS. Edited by HENRY W. CATTELL, A.M., M.D. Thirty-sixth Series, Volume III. Octavo of 310 pages, with illustrations. Philadelphia and London, J. B. Lippincott Company, 1926.

This volume contains many brief articles of value, by American and European observers, upon medical and surgical subjects as well as some observations upon medical conditions in Italy, by the Editor and others. It is difficult to mention special articles in a brief review, but a careful study of this issue of the Clinics will repay the reader. H. M. M.

ALLERGY, ASTHMA, HAY FEVER, URTICARIA AND ALLIED MANIFESTATIONS OF REACTION. By WILLIAM W. DUKE, Ph.B., M.D., Kansas City, Mo. With 75 Illustrations. The C. V. Mosby Co., St. Louis, 1925. Price $5.50.

In this book are presented the basic scientific facts in connection with this subject, along with the clinical manifestations of the condition, and a description of the method of testing and treating patients suspected of having this condition.

The subject is covered in a very clear and concise manner and presents much useful information to the practitioner wishing a further insight in matters of this nature and can be read with benefit by all of us.

CHAS. EDW. HAMILTON.

ULTRA-VIOLET RAYS IN THE TREATMENT AND CURE OF DISEASE. By PERCY HALL, M.R.C.S. (Eng.), L.R.C.P. (Lond.) with introductions by SIR HENRY GAUVAIN, M.A., M.D., M.C. (Camb.) Medical Superintendent, Lord Mayor Treloar Cripples' Hospitals and LEONARD E. HILL, M.B. (Lond.), F.R.S., Director, Department of Applied Physiology and Hygiene. C. V. Mosby Company, St. Louis, Mo., 1924. Price, $3.75.

In this little volume the author has endeavored to include the fundamental principles necessary for some comprehension of the uses of light in the treatment of disease.

In our present state of knowledge, ultra-violet rays are both interesting and most important of those existing in the solar spectrum. As the author states, the time was opportune for the publication of a short work upon this subject by someone with practical knowledge.

Case reports are added showing the various clinical applications of this therapy. The reviewer feels that although there is a great value in the volume as a whole to the practitioner of medicine, still its attention as a volume to be placed in the hands of even the most intelligent of the laity, is not practical. Possibly the author, being English, is not very familiar with reports of cures as reported and distorted in our public lay press. We feel that the scope of this volume is sufficient enough in the enlightenment of our own colleagues in revealing the wide therapeutic application of light.

B. KOVEN.

THE PRIVATE PRACTITIONER AS PIONEER IN PREVENTIVE MEDICINE. Being the Annual Oration of the Hunterian Society, 1926. By SIR GEORGE NEWMAN, K.C.B., M.D., D.C.L. Octavo of 47 pages. New York, Oxford University Press, 1926. Paper, $ .30.

Many of us do not realize that it was during the eighteenth century that the medical profession began the study of epidemiology; introduced notification and disinfection as means of controlling communicable disease; advocated improved dietaries; initiated industrial welfare; began the reformation of obstetric practise; attacked systematically the problem of infant mortality; established dispensaries, hospitals and medical schools; and laid the early foundation of immunity.

Sir George Newman traces these developments in the Annual Oration of the Hunterian Society. All physicians should read his address which is published in pamphlet form; it will be found by all to be of real interest. E. H. M.

MASSAGE AND THERAPEUTIC EXERCISE. By MARY McMILLAN. Second Edition. 12mo. of 331 pages with 17 illustrations. Philadelphia and London, W. B. Saunders Company, 1925. Cloth $2.50.

The author of this admirable little volume has been in close association with men high in the art of reconstruction of the deformed and maimed. There are very few better equipped to write about the above physical modalities.

This volume is highly recommended both for the physician who writes the prescription and for the reconstruction aide who is to compound it or carry it out. It is short, and its text is remarkably to the point leaving out the unnecessary. B. KOVEN.

A BIPOLAR THEORY OF LIVING PROCESSES. By GEORGE W. CRILE. Edited by AMY F. ROWLAND. Octavo of 405 pages, with illustrations. New York, The Macmillan Company, 1926. Cloth, $5.00.

In this book the brilliant and ingenious Crile has presented a biologically fundamental and far-reaching theory in explanation of the living state in general, of certain intracellular intercellular and cellulo-environmental processes in particular, of decadence, disease and death. The living and non-living are compared and contrasted and some steps in the transition from non-living to living matter are suggested. The theory is clearly conceived, explicitly set forth, openly discussed and its applications to the involved problems of physiology and pathology plainly indicated; the gross result of all of which is rather astounding and somewhat bewildering.

Although some idea of this essentially simple, yet remarkably comprehensive theory may be gained by perusal of the following digest, for its comprehension the book, itself, must be read, carefully and critically, its contained assertions and cited evidence weighed and its logic analysed. If, however, the following paragraph serves to stir the interest of those who have not read the book its inclusion in this, necessarily brief, review may be justifiable.

Every living cell is electrically bipolar; the nucleus being positive and the cytoplasm negative. This bipolarity is maintained by the relative hydrogen-ion and hydroxyl-ion concentrations (acid-base balance) in nucleoplasm and cytoplasm, respectively; the lipoid film separating the two (nuclear membrane), being relatively dielectric, acts as a condenser and its two surfaces are oppositely charged by the related oxidation and reduction processes continuously in progress in the cell. When the potential difference between the nucleoplasm and cytoplasm reaches a given magnitude a current traverses the film, tending to equalize the difference. This current stimulates the cell-processes in general and, of these, oxidation in particular; one result of which is restitution of the potential difference (bipolarity) by adequate ionic re-charging of the nuclear membrane. These two processes —the electric discharging and oxidative re-charging— being thus complementary and mutually sustaining, are fundamentally responsible for the automatic maintenance of cells and tissues in the living state. Similar reciprocal relations pertain between the differentiated cytoplasmic structures on the one hand and the environmental cytoplasm on the other, as well as between the whole cell and its immediate fluid environment. The rate at which this oxidative charging and electric discharging occurs varies in different cells and tissues; there probably being, for each sort, an optimum potential difference (acid-base balance) between membrane-separated portions, approximate maintenance of which is essentially normal; deviation from this normal potential maintenance occurring in disease and annulment of it (neutrality) meaning death. What has been said of the cell and its parts applies, broadly, to the entire metazoan organism and its organs; in which case the brain is predominently positive and the liver negative.

To one who is genuinely interested in the problem it deals with the book is fascinating and richly suggestive throughout, and is, even now, being widely discussed among members of the medical profession.

J. C. C.

Hydrogen Ion Concentration of the Blood in Health and Disease. By J. Harold Austin and Glenn E. Cullen. Octavo of 75 pages. Baltimore, Williams and Wilkins Company, 1926. Cloth, $2.00. (Medicine Monographs, Vol. VIII.)

This little monograph of 62 pages is divided into four chapters the third of which is devoted to the consideration of the changes in the blood hydrogen ion concentration in a group of unrelated diseases.

The literature has been rather fully reviewed by the authors.

The clinician and laboratory worker will find a great deal of interest in this concise little presentation.

H. M. F.

The Treatment of Fractures with Notes Upon a Few Common Dislocations. By Charles Locke Scudder, A.B., Ph.B., M.D. Tenth edition, revised. Octavo of 1240 pages, with 2027 illustrations. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $12.00.

The tenth edition of Scudder's Treatment of Fractures is the largest edition so far published. The book has been thoroughly rewritten and much new material has been added. The book, as the previous edition, is profusely illustrated, adding to the clarity of the text.

The author has added to the value of his book by the contributions of Joseph C. Bloodgood on the Pathlogy of Fracture, Frederick W. Bancroft on the Repair of Fractures and Kurt H. Thomas on Fractures of the Mandible and Maxilla. James B. Mennell is quoted extensively on massage. The reviewer was quite surprised not to find under this heading some reference to diathermia and its use in fractures and dislocations.

It was quite refreshing to see considerable space devoted to the treatment of gas gangrene. The author did not make the usual mistake to say it is a rare disease of civil life.

As Collateral Reading for the medical student it should be on the list of every medical school. It points out clearly the pitfalls that a general practitioner is likely to encounter. The Chapter XLIII "The Surgeon and the Law" is of special value in this respect.

The book should also have a place as a reference volume in the library of every surgeon. The work as a whole is a great contribution to the subject of fractures and should be read by every one who comes in contact with this branch of surgery.

J. T.

Edgar's Practice of Obstetrics for Students and Practitioners of Medicine. By J. Clifton Edgar. Revised by Norris W. Vaux. Sixth Edition. Octavo of 779 pages with 684 illustrations. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $8.00.

In this revised edition, we find the old new again.

There is little to criticise as this book fulfills its object admirably, bringing to us the newest attainments in the obstetrical art.

This is conveyed not only by the written word but by the numerous new and instructive illustrations.

The division of the book has been well planned and the subtitles clear, so that as a source of reference it lends itself admirably.

There are methods and advice given that are, to say the least, controversial, but still this does not distract from its general excellency.

The reviewer is happy to recommend this book not only to students but to the obstetrician.

G. W. Phelan.

Your Tonsils and Adenoids. What They Are and How to Take Care of Them. By Martin Ross, M.D. 12mo of 132 pages, New York and London, D. Appleton & Company, 1926. Cloth, $1.50.

In this work the author does much to meet the growing desire on the part of the medical profession to educate the public in medical matters, and to tell patients what is the matter with them in plain understandable English.

What the adenoids and tonsils are, where they are, their diseases and treatment; the indications for, and dangers in their removal, are all considered. The question of focal infection is fully explained.

It is a well written, conservative work that can with profit be placed in the hands of our patients or their parents when they are trying to decide which one of the many courses given them by doctors and friends they had better choose with reference to their own or their children's tonsils.

John W. Durkee.

Orthopædic Surgery. By W. A. Cochrane, M.B., Ch.B. Octavo of 528 pages, with illustrations. New York, William Wood and Company, 1926. Cloth, $6.50.

This is a handy size volume of 500 pages, copiously illustrated and includes comment on the entire gamut of subjects embraced in the specialty. Cochrane has devoted the first part of his book to a rather complete exposition of the teachings of J. E. Goldthwait relative to the structural and functional conception of disease.

The essential message imparted is that form and use altar the physiology of many of our organs, bad posture and poor body mechanics frequently affecting the health of a patient adversely. The author classifies all individuals into four types. In a very convincing manner he shows the proclivity of the different types to different diseases. It is not only an ingenious theory, but it has a practical application relative to the rehabilitation of chronic patients.

Part II takes up the usual orthopedic problems in a regional manner. His remarks on each condition are concise, and the treatment is clearly described or ably illustrated. On the whole, this is an important volume and one will be well repaid for reading carefully and adapting to their own demands, the advice given in the first part.

Donald E. McKenna.

OUR NEIGHBORS

THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY

The Editors of the New York State Journal of Medicine are always intersted in the official Journals of the sister State Medical Societies. *The Journal of the Michigan State Medical Society* for March contains the report of the Secretary-Editor of the *State Journal* for the year. That part relating to the *Journal* is of interest to New York State physicians.

The State Society had 3,065 members on December 31, 1926. The budget of the Society assigns a charge of $2.50 to each member for his subscription to the *State Journal,* thereby allocating $7,500 of the State Society's funds to the *Journal.* The report says:

"The total cost for the year was $14,128.32. Subscriptions and Advertising earnings were $16,106.40. A profit of $1,978.08 must therefore be credited for the *Journal.*"

The report further says:

"The year 1926 witnessed the completion of the Twenty-fifth Volume of *The Journal*—a quarter of a century of publication.

"This last volume consisted of 684 pages of reading matter, approximately 408 pages of advertising and index of 8 pages or a total of 1,100 pages.

"The monthly circulation has averaged 3,250 copies. With the approval of the Executive Committee a change in style, cover, type, and arrangement was effected with the beginning of our present volume. Your Editor spent much time and experimentation in this rearrangement and feels that the present form enhances the appearance of our publication and reflects to our Society's credit.

"Your Editor is not purposing to comment upon the intrinsic merits of *The Journal.* Such comments and appraisals must be forthcoming from the Council and our individual members. Our editorial ideals and aims have been and are: To afford a medium for the publication of scientific articles and the recording of scientific progress: the imparting of public health measures and achievements; editorial discussion of scientific advancement, organizational policies and problems, fields of Society endeavor supplemented by comments upon social, economic, and individualistic events, happenings, and achievements. The effort was always to interweave a spirit of enthusiasm and increased individual activity on the part of our members to foster fraternalism and the quest for the attainment of better, extended and greater end results that proclaim progress while at the same time commendably acquiting ourselves of the implied responsibilities that warrant our Society's existence and justify its activities; lastly, to cause *The Journal* to record county and individual effort, thereby creating a historical record.

"The degree with which these purposes have been attained is not for your Editor to appraise. The verdict must eminate from our members. It has also been our desire and purpose to awaken and maintain personal interest by providing an open forum wherein members may voice opinions and suggestions as well as requests and constructive criticisms. In brief we have sought to cause *The Journal* in full degree to be the official organ of our Society. We may justly point with pride to the sustained interest that has made possible the realization of a worth-while publication that creditably reflects our Society's progressiveness.

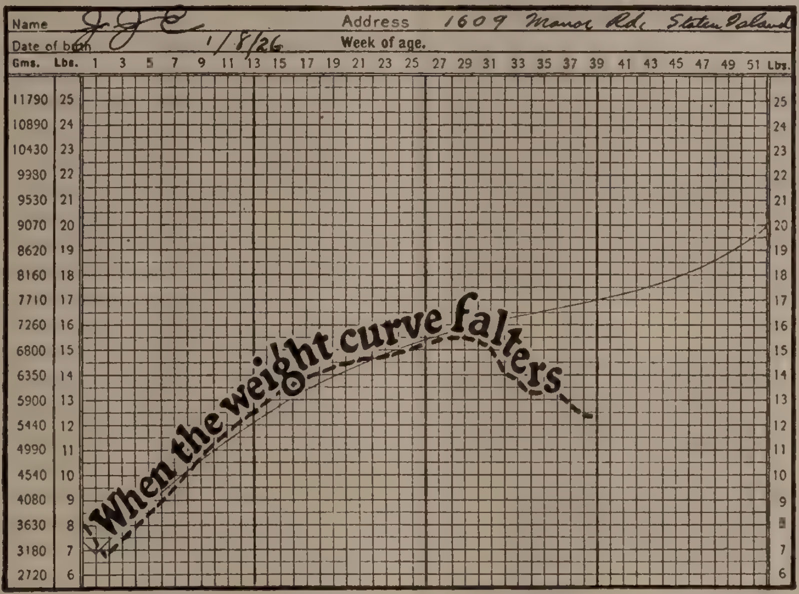
"The Editorial duties are not inconsiderable, on the contrary they consume an increasing amount of time. With expansion in size and form additional hours are demanded in editorial preparation of articles, copy, proof reading and contact with our advertisers. Our mailing problem is one that demands close and constant attention occasioned by a large number of change of addresses. Problems that involve policy or that effect individuals or groups are always submitted to the Publication Committee. I record my expression of appreciation for this valued assistance in the editorial direction of *The Journal.*"

CARBON MONOXIDE POISONING

The extensive use of the automobile by all classes of persons results in an increasing amount of lesser degrees of carbon monoxide poisoning. Headaches and a feeling of fatigue are common symptoms of the chronic form of the poisoning. The Connecticut Weekly Health Bulletin for February 28, discusses this health menace as follows:

"An automobile driver reported to a member of the State Department of Health Staff that after getting a new car he began to suffer head-

(*Continued on page* 384, *Adv. page xvi*)



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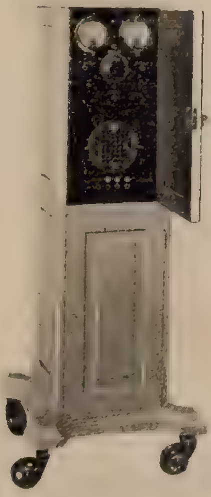

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(*Continued from page* 382)

aches for the first time in his life. A friend suggested that the heater might permit gas from the exhaust to enter the car. Removal of the heater stopped the headaches which had been caused by carbon monoxide poisoning.

"A Boston physician reports a similar experience by one of his patients in a recent number of the *Boston Medical and Surgical Journal.* In this case, however, the man finally sold the car before he was completely relieved from headaches due to carbon monoxide poisoning.

"These instances serve as a reminder of a constantly increasing hazard from the extended use of automobiles. Carbon monoxide gas is a product of incomplete combustion and is always present in the exhaust gases from an automobile. It may also come from an oil burner, from a coal burner, or indeed from any fire where insufficient air is supplied for complete combustion.

"Headache is a common experience in garages and automobile repair shops and the only practicable remedy so far developed is removal of the carbon monoxide gas either through a pipe connected with the exhaust of an automobile while the motor is running or by means of forced ventilation to take the gas out.

"Upon visiting an automobile service station recently in response to a complaint of carbon monoxide poisoning among the workers it was found that the management was considering the installation of an ozone machine on the theory that the ozone would convert the carbon monoxide into carbon dioxide which would be a harmless gas. The January Bulletin of the New York Bureau of Industrial Hygiene contains an article by a chemical engineer describing experiments in which ozone failed to reduce the amount of carbon monoxide in the atmosphere of a closed experimental room. From these experiments it is concluded that the expenditure of several hundred dollars for ozonators for use in a garage is not justified.

"The carbon monoxide problem must be attacked from the standpoint of ventilation. Whether ventilation takes the form of removing exhaust gases from an automobile through a pipe connected with the exhaust, or of removing contaminated air from the garage appears to be a secondary matter. The point is to remove the carbon monoxide by any means the engineers can find effective for doing so. Otherwise people will continue to suffer from chronic carbon monoxide poisoning in garages and automobile repair shops."

A FAT DIET IN PREVENTING TUBERCULOSIS

When the London *Lancet* prints a three-page article on the prevention of tuberculosis by a fat diet, the presumption is that it has considerable basis. Such an article appears in the *Lancet* for January 8, from the pen of Dr. W. B. Vaile, Medical Officer to the Church Army Sanatorium for Boys, Heath End, Aldershot, England.

The article describes the author's observations regarding the fat-eating habits of children who have been exposed to tuberculosis, and the incidence of the disease among the fat eaters and those who are fat shy. Several typical family lists are given, of which the following is typical.

"Case 3.—Infection was by the father, an old-standing positive case.

Fat-Eaters
  Mother, 60, alive and well.
  Daughter, 33, alive and well.
Fat-Shy
  Son, 25, died P. T. 1917.
  Daughter, 25, died P. T. 1922.
  Daughter, 21, died P. T. 1923.
  Son, 20, P. T. pos. advanced.
  Daughter, 35, doubtful.

"The daughter of 35 is married and living at a distance. She is said to be "delicate" and has been refused by an insurance company, but possibly on her family history.

The following paragraphs are taken from the author's further discussion of his theory:

"People who eat a few fats only are clearly fat-shy and must be so classed. They do not eat enough for their protection. Especially is this the case with ham and bacon, which, oddly enough, few of them object to, and which seem to have no protective effect whatever. That these fats are deficient in vitamins is suggestive.

"By inquiring among patients at dispensaries and elsewhere I found that the large majority were fat-shy, and further that the infection to which their resistance had yielded was often very slight and occasional, whereas the fat-eater seemed to require sudden exposure to many bacilli, usually continuing day after day for months.

"The fat-eater cannot suddenly share a bed with a consumptive, nor plunge into badly infected lodgings, nor stand the introduction into his small office of a clerk who coughs incessantly and proceeds to close every possible crack to avoid draughts. But the fat-shy cannot meet an infectious friend once a week at a club, nor teach in a large airy school-room where an infectious child came for just three days.

(*Continued on page 386—Adv. xviii*)

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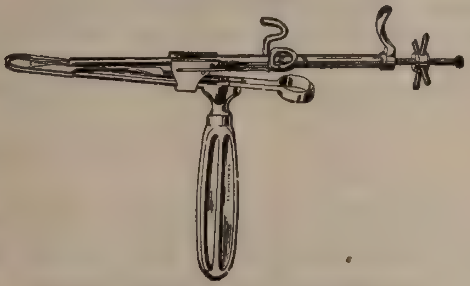

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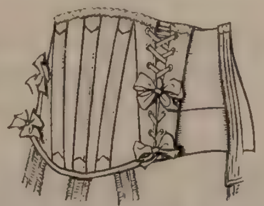

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"With the fat-eater liberties can be taken. His higher resistance allows a bigger initial dose and much less care about the subsequent doses. In the same way he can inhale with impunity a comparatively large dose of tubercle bacilli and increase the number much more carelessly. Doses which would be fatal to the other are positively beneficial to him, helping him to build up an ever-increasing resistance. He can stand anything in reason—anything, that is, but a series of overwhelming doses to start with.

"There is, I think, every reason to hope that a wider knowledge of these simple facts among the general public may lead to a great diminution of pulmonary tuberculosis. At present we are dependent for our safety on the intelligence and the goodwill of the infectious person. We exhort him to protect us. Here is a simple way of protecting ourselves."

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

The Medical Society of the State of New York has not yet given serious consideration to the formation of a Woman's Auxiliary, but our sister state of New Jersey has adopted the movement and is promoting it actively as is shown by the following extracts from the *Journal of the Medical Society of New Jersey* for March:—*Editor's note.*

"At the last annual meeting of the State Medical Society, the House of Delegates determined upon the formation of a Woman's Auxiliary, and appointed a special committee on organization, with Mrs. Samuel Barbash, of Atlantic City, as Chairman. Immediately afterward, the newly elected president, Dr. James S. Green, issued a letter to the presidents of all the county medical societies requesting them to coöperate in this work, and to start off by appointing a local representative—preferably the wife of the county society president—to aid in organization plans.

"Two possible modes of procedure suggested themselves: to form a state society auxiliary and then develop county branches, or, to organize auxiliaries to the county medical societies and then amalgamate these into a state body at the time of the next annual convention of the State Medical Society. After due consideration of the amount of time and labor required to effect the ultimate purpose, the second plan was decided upon."

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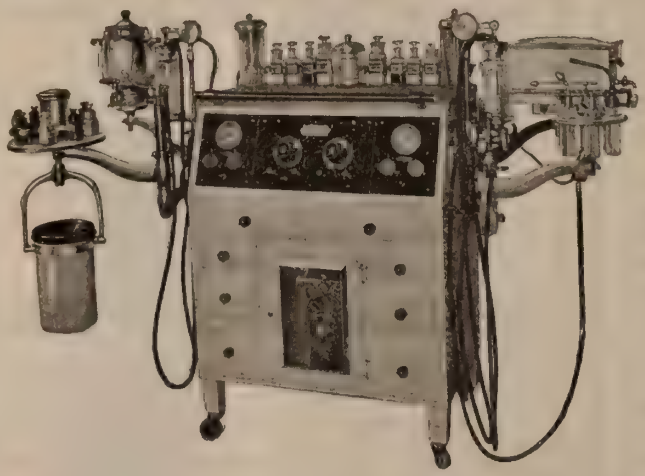

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LOCAL ANESTHESIA FOR TREATMENT OF FRACTURES

Three methods of anesthesia are proposed for obtaining muscular relaxation during the reduction of fractures, 1. general, 2. spinal, and 3. local. The following abstract from an article in the West Virginia Medical Journal for March gives an excellent account of the method of local anesthesia by Dr. W. S. Magill of Morgantown.—*Editorial note.*

"The present trend of practice in this country is insisting more and more on the exact, complete and prompt reduction of every fracture under control of the X-ray picture, first for demonstrative diagnosis, and secondly for practical evidence of its complete reduction and maintenance during the healing process.

"Such therapy is considered, by reason of its requirement of complete reduction and the time necessary for X-ray plates before and after reduction, to make necessary a complete anesthesia — more exactly analgesia — throughout the entire period of making the diagnosis, effecting complete reduction, making the requisite apparatus for immobilization, etc., as well as the exposures, before and after, for the X-ray plates.

"The time of accomplishing all of these things is so great, that where a general anesthetic is used, it involves all of the undesirable symptoms, dangers and after effects of any such prolonged deep anesthesia. For reduction of fractures under general anesthesia the deep unconscious state is absolutely necessary.

"All the requisites for fracture therapy under complete analgesia, without requirement of general anesthesia, and for any period of time desired are met by the use of local anesthesia.

"For all non-complicated fractures this local analgesia is easily effected by use of suitable needle and syringe, pushing even into the marrow of the bone, at the site of fracture, and in close approximation about it, a small quantity of a two per cent. solution of novocaine-adrenalin in distilled water. In the vicinity, make also a few intra-muscular injections with this same solution; and in case the fracture be juxta-articular, make at least a small injection of this solution into the joint (intra-articular).

"In about fifteen minutes time there results a complete analgesia, with complete muscular relaxation and the suppression of all reflex contractions during the entire time of the requisite manipulations for the complete reduction, maintenance and control of all such fractures.

"Such procedure is not new. In fact, it is extensively used by a number of surgeons; but it seems this local anesthesia in fracture therapy is not sufficiently known to the general practitioner for his use to anything like the extent the method merits.

"During the European war in Russia, where many of the first aid stations of the front line were insufficiently manned, this method of analgesia was very widely used, as it permitted the surgeon without other skilled assistant to accomplish rapidly, thoroughly and painlessly the reduction of all such fractures, and the long persisting analgesia was also of great value in permitting the immediate transportation of such patients, as soon as the fracture was completely immobilized, to the rear and even directly into evacuation station, as he was free from pain and completely assured of all necessary care of his fracture for at least a week.

"In all the Industrial work of our state, it would seem that the first attending surgeon would find the local anesthesia invaluable for his immediate care of fractures of this nature; and in hospital practice it should be a preferred method for the reasons stated, and even might well become the established routine of procedure."

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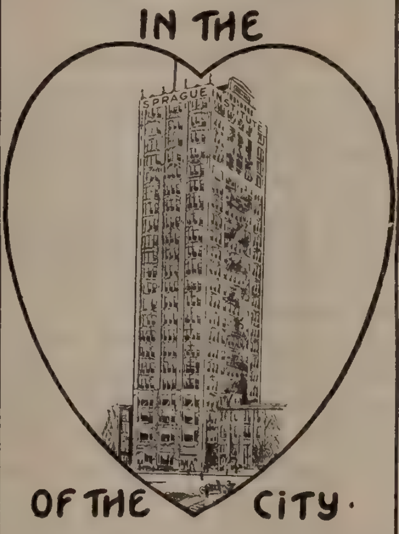

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"It is only when cardiac muscular phenomena are to be investigated and recorded that one turns to electrocardiographic tracings. In the display of these important events, as disclosed in the cardiac cycle, the cardiopathic examination may be considerably added to by a proper interpretation of the tracings of the three leads of the electrocardiogram. The widespread use of the electrocardiograph is reason enough for a brief comment upon its tracings at this time. But it must not be taken to be a method that will ever supplant the ancient and honorable physical examination—by inspection, palpation, percussion and auscultation. Nor can it ever be used as a substitute for a discriminating judgment in dealing with cardiac disorders. There is reasonable basis for the position that the expert in physical diagnosis, well seasoned in practice and grounded, by contact with a large number of heart patients, in the knowledge resulting from an imperious urge of cardiac symptoms, will always be the court of surest resort, if ever a choice between the skilled clinician or the pure electrocardiographer arises. The fact is that, in our opinion, no electrocardiographer or cardiologist, as such, is best fitted to diagnose and treat the cardiopath, unless such a specialistic limitation is founded upon a wide experience in general medicine. In fact, a heart specialist can never get away from general internal medicine if he is to be the best sort of a heart specialist.

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TUBERCULOSIS WORK IN CATTARAUGUS COUNTY*

By ALLEN K. KRAUSE, M.D., BALTIMORE, MD.

THE plan of the anti-tuberculosis work in Cattaraugus County is admirable, and as simple and perfect as can be. At this late day, there can be no quarrel as to how to prevent tuberculosis, or how best to treat it. We know, for instance, that we must find practically every significant case, just as we know that we must see to it that all cases have the proper care, and we may be perfectly certain that if all this could be done in a community for, say, a generation, tuberculosis would come near to disappearing in that community. We know also through what agencies we may best find the cases as well as treat them. The whole question is to know how to do all this work in a county such as Cattaraugus—how best to make these agencies effective. And with all this, as you know, although the Cattaraugus Board of Health is by no means the only county board of health organized on this basis, nevertheless it has perhaps more opportunities than any other ever had to devise proper programs. And I approach the whole subject from this point of view.

Terminology.—No case should be called tuberculosis unless it can be proved to be so, and, in all reports of case-finding or discussions concerning case-finding, it would probably be better to drop the term "arrested." "Arrested" is not a diagnostic term. "Arrested" is a term that was coined to designate a well-understood type of progress that occurs during treatment. It assumes always that a case has been under treatment for tuberculosis, and that the case has come to a standstill and is therefore called "arrested." But surely you cannot tell, merely by examining a case for the first time in the routine of diagnosis, that the patient may or may not have been treated for tuberculosis, or indeed that he may or may not have been ill even with tuberculosis in the past. There may be a presumption, and very frequently is a presumption, that the person has "arrested" tuberculosis, but without a definite positive history, and often this is impossible to get, "arrested" tuberculosis must always remain a presumption. Therefore, the term should not be used in this connection. Let us call a condition "healed tuberculosis," or "latent tuberculosis," or "inactive tuberculosis," or some other diagnostic term, but do not call it "arrested tuberculosis."

Infection, Morbidity and Mortality.—There are three phases of tuberculosis about which the Cattaraugus Health Demonstration should give us competent information. It must find out, first, what is the incidence of tuberculous infection in the community. This can be determined with only a very slight error. It is manifestly impracticable to examine every person in Cattaraugus County, but cross-sections of the population can be examined and tested. In general, we may always expect to obtain a pretty accurate idea of the incidence of infection.

Second, comes the incidence of mortality. Granted that diagnosis in practice is reasonably efficient, the data of mortality in any community may always be assumed to represent the most accurate information concerning tuberculosis that is obtainable.

But between mortality and infection lies the great shadow-land of morbidity, which is perhaps the most important phase of tuberculosis about which we like to know something. We would know how much morbidity can be expected to develop from a certain sum-total of infection, for it is infection which must originate morbidity; and, again, how much morbidity develops year after year from that amount of morbidity that remains on the ground, as it were, for it is plain that practically all infection originates out of existing morbidity. Morbidity is simply another degree of what we call tuberculous infection, originating the latter and again being originated by it. As a matter of fact, accurate knowledge of morbidity from tuberculosis remains practically non-existent anywhere, yet I believe that the Health Demonstration of Cattaraugus County has the opportunity to determine it for the first time.

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*A revision of stenographic notes of an address delivered at a public meeting of the Milbank Memorial Fund Demonstrations, New York City, January 19, 1927.

It must be plain that in any consideration of morbidity we are interested almost wholly in the active case. Therefore, practically all statistics of morbidity should comprehend and be interested in only the active cases. The remarkable thing about the active tuberculosis in Cattaraugus County is that since the Health Demonstration has been on the ground, the number of cases of active disease has held steady; 154 in 1924; 151 in 1925; 157 in 1926. These are figures taken from the tuberculosis register at the end of each of the three years. We may therefore assume that they represent the number of cases actually in existence at any time and at all times during the three years. They may therefore be considered as denoting what we may call the "fixed morbidity" or "continuing morbidity" for the County.

How does this amount of tuberculosis compare with what was known to exist before the Demonstration? You have heard that the physicians of Cattaraugus had previously reported an average of 75 cases annually. I believe that most of these must be conceived of as having been active. Therefore, it seems to me that, with of course a balancing of all factors here, we may say that 75 cases annually is perhaps the amount of active tuberculosis that was known about, or registered, or reported before the Demonstration opened. Therefore, also, I would measure the contribution of the Demonstration to case-finding as having about doubled the number of known active cases of tuberculosis in Cattaraugus.

One of the most important features of any organized tuberculosis work must be always the search for contacts and the proper disposition of these. It is fundamental here that all contacts be examined for the possibility of tuberculosis, and the effectiveness of any tuberculosis service may be judged by its success in getting contacts to the proper agencies for diagnosis, and afterward by the completeness with which contacts follow instructions.

It was not possible at the time of my visit to estimate how effectively the Tuberculosis Service has been carried on in this respect, for at the time of my visit the figures on the clinical and nursing record sheets as to the number of contacts that had been found and advised had not been tabulated. Therefore, without this information we are unable to estimate what proportion of the total number of contacts that exist have been examined and are following instructions. However, we do know what proportion of examined contacts have been found to be tuberculous, and this has been roughly about 5 per cent. of a total of about 500 contacts.

In order to judge proportionally the efficiency of any service in respect to tuberculosis contacts, we must have four essential items of information. These are: (1) The number of contacts that have been found and have been advised to come to the clinics. (2) The number of these who really go to the clinics. (3) How many of these have anatomical or biological (tuberculin test) evidences of tuberculosis. (4) How many have active tuberculosis, that is, tuberculosis with symptoms or disability.

Tuberculosis work among children is, of course, always relatively easy. It is the work with adults that is particularly difficult, and, as I see it, the main problem in Cattaraugus County or one for any County Board of Health, is to devise methods of approach, or practice, or control, etc., with the adult population. Remember, it is the adult, not the child, that is ordinarily the infectious case, and you will at once see the importance of getting hold of all adult cases; for these represent the main sources of infection. Experience in Cattaraugus has been no exception to the rule. Children form by far the larger part of the population that has been examined and put under control, while it has been found difficult to get a good proportion of the adults to follow instructions. However, the Tuberculosis Service is thoroughly alive to this situation, and is taking means to improve it, and there is little doubt that it is improving in its success in handling adults. One feature that cannot help impressing the observer is the great opportunity which case-finding in tuberculosis provides for the public health nurse to detect other diseases in their early stages. After all, tuberculosis in Cattaraugus County is a relatively minor disease. At present, it stands about seventh as a cause of death there. The success of the demonstration depends quite materially upon holding the good will of the physicians, and in the present stage of the development of the undertaking this means that the official examiners and the public health nurses must confine their interests and examinations between the neck and the midriff, that is, confine their attention largely to pulmonary tuberculosis.

This cannot help but result in the inability of the public health nurse in her daily rounds to detect and report in other conditions that may be significant. All of us talk of saving lives. For the medical profession and the people alike the saving of lives must, at bottom, be the main justification of the present activities in Cattaraugus County. We at once think, in this connection, of the many chances of the visiting nurse to pick up, at the first sign of trouble, numerous diseases, within the home which she may be visiting. For instance, in ordinary gossip with the housewife, she should always be expected and encouraged to talk about the family's health; and here she would frequently, no doubt, learn about the first traces or symptoms of conditions that suggest rodent ulcer, or diabetes, or Bright's disease. And here would seem to lie her opportunity, in getting such patients to their physicians and the clinic so that a diagnosis of the disease could be made at a time when the patient would have the best chance of recovery.

All this is a great opportunity, and one that should not be missed. But what stands in the way, to a great extent, is the attitude of the physicians, who do not wish the Demonstration, that is, the Demonstration's nurses, to do any work of this kind that trangresses the limits of the chest. Why is this? Of course, I cannot go into the whole question of the general attitude of the medical profession toward any enterprise of this kind, except to say that an attitude such as I have mentioned is one that is natural and only to be expected. Why, though, do the physicians accept tuberculosis work, while they may object to any active interest on the part of the nurses that may go outside tuberculosis? Simply, I believe, because for years we have had a campaign on tuberculosis. The physicians have been taught that the diagnosis of tuberculosis requires rather special methods or technique. For a generation they have been educated up to the necessity of tuberculosis examinations by specialists, and have been educated down, as it were, to their own incompetence in the matter, —a thing that I have always deplored because of my belief that it lies entirely outside the facts of the case, but nevertheless the circumstance remains true. Accordingly, the medical profession has become perfectly willing to allow for tuberculosis outside activities which might presumably infringe upon their interests; but I cannot conceive of another disease besides tuberculosis for which they would be as tolerant, except perhaps the acute venereal diseases. One of the main encouraging and impressive features of the Demonstration is the certain evidence that the interest of the physicians in the Demonstration, and their cooperation with it in tuberculosis work, are continually increasing. The Tuberculosis Service lists four types of sources of tuberculosis cases. These are: (1) The public health nurse, (2) the physicians, (3) publicity, (4) what are called "other sources." At my request, Miss King, statistician of the Bureau, has charted the tuberculosis cases as regards their source, for the several years of the Demonstration. These charts show that of all the sources the physicians form the only one which has constantly increased throughout the County; that is, every year they have been referring a larger proportion of cases to the clinics.

When we come to the matter of treatment, we approach the most difficult phase of all this work. You have heard of the 494 cases being kept track of at the end of 1926. Of these, 235 were under home treatment, while the rest, 259, were under more or less supervision. The presumption is that they were under very little supervision. When we try to find out how many people are really being taken care of, we find that it checks about as follows: About one quarter of the 235 under home treatment, who have agreed to abide by the regulations of the Demonstration, cannot be reached for a good part of the year, because of their inaccessibility resulting from the heavy snows and the poor condition of the roads in winter and spring, and the presumption therefore is that one quarter of these patients are not under treatment at all during a good part of the year. The nurses try to keep in touch with these shut-ins by letter, but replies are few. You may ask, "Why not use the telephone?" The answer is that contact by telephone becomes impracticable for a very human reason. Party-line service prevails in Cattaraugus County; I have been told that there are as many as twenty-four parties on one line. And a rural patient will simply not discuss health matters on a party-line telephone, on which other subscribers might be "listening in." So this cuts off one way in which the patients might be reached.

One practical point of procedure which the Demonstration has thus far shown definitely is that in the rural districts the public health nurse must stand exactly in her profession as the county doctor stands in his. He must be a general practitioner of medicine, and she a general practitioner of nursing. Greater specialization simply will not work. Economically and practically it is impossible. This, it seems to me, is settled.

Again, in the distribution of those duties which, in the city, are generally referred to so called social service, it would appear that in the country the nurse must take to herself a good deal. There are only two social workers in Cattaraugus. These are attached to a voluntary agency, yet work with the utmost cooperation with the personnel of the Board of Health. In the ordinary home treatment of tuberculosis, one element that must often receive great attention, and frequently more than anything else, is the provision of relief. In the city, this falls within the province of the social worker, who can see to that rearrangement of the home which is necessary in practically every case. Now the nurse, in going into the home and preparing to treat her case of tuberculosis, can certainly not start this case on treatment and drop everything that may not, because of technique or plan, come within her province, and say that she must first get the social worker on the job. In remote districts, at certain times of the year, it may take days or weeks for one of the two social workers to get there, and it is not good for the morale of the patient, or indeed of the nurse, to have to wait quite a time before the treatment and care really get under way. It certainly must mean much for the future of any case to have treatment instituted immediately after diagnosis is made. The only solution of this situation would seem to be to arrange things so that in the rural districts, at least, the public health nurse be permitted to function along several lines which now are followed by the social worker.

It strikes me that we might divide the service in Cattaraugus County in some such fashion as this: Have every kind of work, no matter whether theoretically or professionally it is what we think of as social work, come under the nurse wherever and whenever it touches health or hygiene. Empower her to proceed at once under, of course, very definite instructions. If she cannot make a certain decision at the time—such a situation may confront her—have her get in touch with the Medical Director. Let the social workers do all that social work that pertains to the adjustment of legal matters; for instance, the working out of the legal aspects of a psychiatric case or in the disposition of orphan children. In other words, refer to her everything that does not pertain strictly to medicine. This plan in Cattaraugus would work better for both the patients and the Bureau than the present one. If we divide off too sharply the duties of the public health nurse—there are fifteen of these there—from the duties of the social worker, and say that one may not infringe upon the domain of the other, we are bound to have a good deal of friction between the two, and in any event the patient will frequently suffer. It should be said, however, that in Cattaraugus the public health nurses and the social workers are pulling together remarkably well.

Some provision other than exists at present must be made for the relief of patients under treatment. The ordinary tuberculosis patient is one for whom any prolonged limitation of earnings is bound to be a serious handicap, and it happens that tuberculosis in almost every case means prolonged limitation of earnings. Even though the bread-winner is on full earning capacity, and it is the housekeeper who is ill, this means that outside household service must be brought into the home and paid for. About the only avenue they have today for relief in Cattaraugus County is through the office of the County authorities who look after the poor. Ordinarily, you cannot get the tuberculosis patient, who possesses any self-respect, to accept relief through any agency that smacks of the poorhouse. You cannot, as a matter of fact, get any one to do this—not even the down-and-out negro patients in our cities. Notwithstanding the fact that the Supervisor of the Poor of Cattaraugus County has said that in 1926 he spent more for relief work for the sick than had ever been spent before, it remains true that the one big obstacle to making effective the home treatment of tuberculosis lies in the circumstance that Cattaraugus has practically no voluntary philanthropic agencies, such as are numerous in the cities, and that nearly all financial relief must come from the Poormaster of the district. The nurses are frankly discouraged about the situation, and point to it as one that hampers them the most.

How can this be remedied?—There will have to be some agency which is frankly devoted to relief for public health purposes, and the funds distinctly set aside for that. If this means that permissive legislation will have to be secured, the quicker this is done the better. No doubt, the day is coming when every community sets aside funds for relief of those ill and disabled from all diseases. Cattaraugus might well make the start in this direction. The point is, don't let such relief smack of the poorhouse in the least degree. Conceivably, some agency like the local Board of Health might administer funds of this kind.

As a result of the school inspection of about 4,000 children in the grade schools of Olean 729 were found 10 per cent. or more underweight. More complete examination of these underweight children disclosed 49 cases as being what was called "positively tuberculous." Of these 49, one was classified as bone and joint tuberculosis, 10 as pulmonary tuberculosis and the remaining 38 as having hilum tuberculosis. I have been wondering whether these figures represent the true incidence of tuberculosis among the school children. For one thing, I should expect more tuberculous adenitis, which, as is well known, is always the most common form of tuberculosis in children of school age; and, although I am told that tuberculous adenitis is peculiarly rare among the white children of Cattaraugus County, I can hardly understand the circumstance that not a single case was found among the grade school children.

Cattaraugus County would appear to have remarkably little tuberculosis among its children. One index of the opportunities for tuberculous infection in any community will always be the number of infantile deaths from tuberculosis. Reported deaths from tuberculous meningitis have of late years been so rare, as to lead one to believe that the disease has been practically nonexistent. When the 49 cases of tuberculosis among the grade-school children are analyzed only 8 are found to have active tuberculosis. The proportions given you here today by other speakers have been as between these 8 and the total number of children *examined*, and this works out as about 0.9 per cent. of the underweight children being found with tuberculosis. Perhaps a more exact idea of the amount of tuberculosis existing among the children might be had by taking the ratio between the 8 active cases and the whole number of children gone over at school inspection, that is, of the 4,000 grade-school children. This works out that only one-fifth of 1 per cent. of all the children have active tuberculosis, and such a very low incidence will, I believe, better approximate the truth.

One weak point in the diagnosis of tuberculosis among the children has been that skin tests have not been made in every case. One might say, "What information would it give you, for practically every person reacts positively to the skin test?" Such a question is not to the point. In the first place, it is not true that practically even every adult will react to the tuberculin test. It is not true even in the city, nor is it true for the population that ordinarily resorts to the hospital dispensary. It may be that 75 or 80 per cent. of adults will react positively, yet it is not so uncommon in a city hospital to get a negative skin test in our patients. When we get negative tests, it helps us enormously in arriving at diagnoses. In Cattaraugus County I am certain that there will be many persons, both adults and children, who will not give a positive skin test. All such negative reactors may, with certain well-understood reservations, be dismissed at once as being without tuberculosis. I would therefore recommend that skin tests be done routinely and immediately upon every person up for diagnosis.

I believe that 150 active cases represents pretty well the active cases of the County. I do not believe that there are many more actives, and it is only with the "actives" that, personally, I consider that much worth while may be done. As I said before, I believe that these 150 active cases will be about twice the number of active cases that were understood to be present in Cattaraugus before the Demonstration. In other words, the Bureau's contribution has been to double the number of known actives, and that is a noteworthy achievement.

As regards the deaths, you will find that tuberculosis ran a peculiarly jagged curve for a generation in Cattaraugus County. Indeed, I have never seen a tuberculosis mortality curve quite like it. In 1920, for the first time, the Cattaraugus tuberculosis mortality line crossed that for New York State. In other words, the death-rate in Cattaraugus County was higher than it was in general for the State, —a phenomenon that has been recently noticed as holding true for New York State in general; that is, in New York State the rural death-rate for tuberculosis has for the last seven years been higher than the urban death-rate. Accordingly, Cattaraugus simply reflects the general condition of a greater tuberculosis mortality in the country districts than in the cities of the State.

All signs point to the fact that throughout the nation there has been an enormous diminution of infection that is now becoming markedly appreciable. For instance, if we compare the tuberculosis mortality of 1925 with that of 1900, we find that for the United States conditions have improved two and a half times for the general population, and in New York City three times for the general population. But in New York City the improvement for the children has been four times, and for infants more than six times. While there are no doubt many factors which make for tuberculosis morbidity and death, it is indisputable that the earlier we go in age, the more certain we may be that factors of infection, such as dosage and repetition of infection, become more and more responsible for whatever tuberculous disease and death develop. This very significant decline of tuberculosis mortality, which is most marked in the earliest ages of life, surely suggests that the opportunities for infection have greatly decreased.

There is reason to think that, to keep up a given mortality rate in any community or geographical division, there must be a given, although unknown, amount or sum-total of infection present there. Such a factor has been authenticated for a disease like malaria. Perhaps the same factor is at work in tuberculosis, and one prime reason why deaths from tuberculosis have declined so much is that there is much less infection abroad and at large. Perhaps we are even approaching that point where the sum total of infection will, in time, become so slight as to make tuberculosis a sporadic rather than a widely diffused endemic disease. As we approach this point, we may be sure that the tuberculosis problem will, to a large extent, be solving itself; and, as said above, there are a good many signs that the situation as regards tuberculosis is taking some such shape.

The moral of all this is that we should not for any reason relax in our efforts to control tuberculosis by attempting to close up all sources of infection. Such efforts must, of course, comprise the most complete finding of cases and the taking of these under medical care at the earliest possible moment, and these are the basic purposes of the tuberculosis service in Cattaraugus. If there ever was a time to put all available money and forces into the combat against tuberculosis it is the present, when, it would seem certain, the disease is "on the run" and thereby offers some chance of solution. Again, of all times not to relax, this is the time. The story of Germany during the war provides the best example of what happens once you neglect tuberculosis. The situation in Cattaraugus today, with its low incidence of tuberculosis, would surely seem to provide the opportunity to demonstrate decisively that tuberculosis may be really eradicated. I believe that the Demonstration should be bold enough to set nothing short of this as its ideal, for I am of the opinion that the ideal is obtainable. The three years since the beginning of the Demonstration gives us too short a time to evaluate exactly what the Demonstration has done in the way of saving lives; but let the Demonstration have at least five years, and if necessary five more years after that, to find out whether tuberculosis can be eradicated. I believe it can be.

THE HOSPITALIZATION PROGRAM FOR THE TUBERCULOUS—ITS PRESENT POSITION AND NEXT STEPS FOR THE FUTURE*

By **DAVID R. LYMAN, M.D.,**
Superintendent of the Gaylord Farm Sanatorium, Wallingford, Connecticut.

I SHALL not take up your time by tracing the history of the development of our program of hospitalization for tuberculosis, but shall endeavor to cover the rather large order indicated in my title by asking myself a few leading questions as to this problem and then attempting to answer them.

The first question I would ask is "Should we, in the light of our experience, modify our ideas as to the desirability of the treatment of tuberculosis in institutions?"

My answer to that would be an emphatic "No!"

First, as to the advanced case. There can hardly be any question among us that hospitalization of these is not only indicated from a humanitarian standpoint, but that it is one of our most potent means for preventing the spread of tuberculosis.

The work of our dispensaries, the routine examination of families of "open" cases, and our studies in infection in childhood, especially the splendid work of Rathbun in Chautauqua County, where he is locating the chronic adult case by tracing back from the tuberculous child discovered in his school clinics, all emphasize the fact that the hospitalization of these cases is all important.

Second, as to the sanatorium being the ideal means of treatment for the early case.

If any of you should by chance have any doubts as to this, I would advise you to read the reports of Dr. Lissant Cox, the Tuberculosis Officer of Lancashire County, England. Dr. Cox's reports cover over ten years of work with a complete County unit, including three sanatoria and several dispensaries, with an expert medical staff and a force of nurses for supervision of home treatment and for the follow-up of all cases. His after-results, carefully tabulated, reveal that five years and over after discharge the sanatorium-treated cases of every stage show an increase in permanent results ranging from twenty to forty per cent over similar types of cases treated at home.

There can be no question as to the desirability of institutional care for both types of cases.

My second question is: "Has there been any change in our conception of the function of a tuberculosis hospital?"

There has been a very marked change in this. Our general idea of a sanatorium twenty years ago included a porch, a reclining chair, a rule book, three quarts of milk and six eggs daily and a chest examination once a month. That was considered a very good sanatorium regime. In fact, we usually did not examine the patients oftener than once in three months.

There has been a very marked change in our conception of the medical work of a sanatorium. In those days it was usually conducted by a sick doctor who had been hired principally because he was cheap. He was cheap because he had to take that job as he didn't have the health to take another. Most of his time was spent acting as general mechanic and bookkeeper, looking after the pigs, and keeping everybody happy. His medical work was done in his spare time.

We have a very different viewpoint today. We have found out that tuberculosis work, whether in the sanatorium or hospital, requires as high a grade of medical skill as that of the most modern general hospital. We know that our problem covers not only the existing tuberculosis but the whole general health of the patient. We must be prepared to study our patient thoroughly and seek for all physical defects that may be impairing his general health and thus contributing to the activity of his tuberculosis. We must look for and correct troubles of the eyes, teeth, throat, digestive tract, urinary tract and especially pelvic disorders in the women, so that our patients may return home with their general health at the highest possible level and not, as is often the case, carrying physical handicaps that are constantly undermining their resistance.

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*Given at the Conference of the State Charities Aid Association, New York City, January 19, 1927.

This means we must give thorough general medical service equal to that in any general medical hospital, and that we must have a medical staff and equipment to give it. In fact, we have got to give a little more in the line of medical service than a general hospital.

A physician in a hospital dealing with acute diseases of limited duration can do fairly good work; (I only say "fairly good") if his primary interest is in disease and diagnosis and he is only secondarily interested in "folks." The man in tuberculosis work can never do decent work unless interested in the patient, as an individual, just as much as in what is wrong with him, because the future health of his patient is closely affected by all that goes to make up his social and economic life. The sanatorium doctor has not only to understand tuberculosis but he has got to study and understand men and women and their problems if he is going to be of real assistance to them, and the patient in the sanatorium who hasn't a personal friend somewhere in the medical staff isn't getting the best that sanatorium can give him.

It is for these reasons that I don't think that any tuberculosis hospital can be best managed on a part-time basis, no matter what its size. That question frequently comes up—does it pay to have a full-time man for the little hospital?

I notice in New York State you have thirty-five county and municipal hospitals. Twelve of them are still under part-time management. Their beds run from twenty to fifty. Question: Does it pay to have a full-time man for that size of an institution? Well; if you get a full-time man for an institution of forty to fifty beds and you find he has any leisure time, you had better fire him. If he is doing the real work to be done and all alone, you have got somebody worth keeping and you had better raise his salary!

What about the little place of twenty or twenty-five beds? Can you use a full-time man there? You can not only use him, but you can do the best kind of work any institution can do, because in addition to taking care of his patients, he has time to go out into that community. He will be able to get in touch with your local medical profession and give consultation service to them. He will be able to act as consultant on the local hospital staff, if there be one, and improve his own medical work as well as helping the hospital. He will be able to go out into the homes of the people and examine the contacts of his own patients, and be the personal friend and advisor of the whole community and the biggest influence for public health work that community could possibly have; and will repay his full-time salary to the community many times over.

What about advanced hospitals? There has been another great change in our ideas as to those. We used to look upon them as having only two functions, removing dangerous cases as foci of infection, and giving people a comfortable place in which to die.

Modern medicine, with the development of pneumothorax and of lung surgery has shown us that many of these cases we formerly felt were hopeless have a real chance of getting well, and if we are going to run hospitals, let's give everybody the best chance we can to get well or stop running them. There is no excuse for running them unless you do. If you provide an advanced hospital with facilities for proper care and modern treatment, you won't have just a home for the dying by any means; you will have a hospital in which many people will recover that under our old methods never had any chance at all.

My third question was, "Has there been any change in our opinion as to the type of hospital buildings best suited to the work?"

Thank Heaven, there has. One only has to think back a few years to realize that we used to get up and brag that we had accommodations at our sanatoria where we were treating human beings, and sick ones, at a cost of somewhere about one or two hundred dollars a bed! We built a shed and put a stove in it; we tried to take care of patients in abandoned street cars; anything was good enough for the patient with tuberculosis. Our main idea was not to spend any money because we expected to wipe out tuberculosis in fifteen or twenty years.

Then we made another big mistake; the biggest of all. We figured in building our early institutions that the incipient cases were all going to flock to us and that we needed only twenty-five per cent infirmary beds. There are few of us running those institutions that have not often longed to have every bed in the place where we could give infirmary care if we wanted to. There isn't a single man of us that hasn't had the painful experience of having to move patients to the cottages or shacks, because their places in the infirmary were needed for more urgent cases and then seen them relapse because of the lack of that close supervision which they should have had. Our modern sanatoria provide infirmary and semi-infirmary accommodations for from 50 per cent to 75 per cent of their population.

The type of the advanced hospital has changed in similar degree. Instead of a ward with a death room at one end and maybe one little room where some few charts or records might be kept, we expect real medical work in the hospital for advanced cases of today, and we expect the sanatorium and the hospital alike to be equipped with X-ray and laboratory facilities to enable their medical staff to give whatever service to the patient that they think that patient may need.

The era of cheap frame construction has gone and we build fireproof or semi-fireproof buildings. We no longer locate them in inaccessible spots for the sake of a few hundred feet of extra elevation, but put them near our centers of population where lessened cost of construction and of maintenance, availability of skilled medical consulting service, accessibility to families and friends and many other factors combine to insure a type of service superior to that which we can give in the more isolated places.

We are getting away from two of the greatest curses of tuberculosis work,—initial cost and per capita cost. We are commencing, like any other business, to consider the returns on our investment and not exclusively the preliminary investment. The first question asked by your board of directors used to be "what is your per capita cost?" they didn't seem to care how many patients were getting well, but to think that if your per capita cost was 1.72, and the fellow in the other county was running for 1.68, that you must be wrong. Usually the fellow with the cheapest per capita work was doing the poorest work.

My next question was: "Are our institutions accomplishing all that we expected of them? If not, why not, and what is the remedy?"

My answer to that is an emphatic "no." We are not accomplishing anywhere near what we expected to do, because we don't get early cases, and because we don't keep them after we do get them. We expected to get them all and cure them all. We are doing neither. Now whose fault is it? First, I should say the fault is our own. My experience has been that the average institution that is doing real work always has a waiting list. I think when we have vacant beds we have got to look for the beam in our own eye before we hunt around the rest of the community. Patients are very sensitive, quick to sense whether they are the primary or secondary interest in the institution. They are not going to stay where they know they are being exploited. They are not going to stay where they know the work of the institution is being done often at the risk of the health of the patient. They are not going to stay in the institution where they do not get the nursing and care that they coud get at home. In other words, when they have been at home, kept in bed by their family physician, because they had a fever and not allowed to go about at all, and then are sent to an institution where, when their temperatures are below one hundred and one they get up and go to the bath room because there are not enough nurses, then those patients are not going to stay. That is not an unusual situation in many of the institutions of our country.

So the first fault is our own. If we bring up our standards and give our patients what they need and what they have a right to expect I think they will stay longer.

The second fault lies with the public. The public has not yet fully understood that the patient has a much better chance to get well under the regime and training of the institution than at home. We have to continue our campaign of education to teach them that.

The third fault lies with the physicians, who still to some extent advise on the basis of the few cases that have done well under home treatment, forgetting the ones who have not, or else who pattern after the old darky who said the best way to give a woman good advice was "first to find out what she wanted to do and then tell her to do it." And knowing all patients want to stay home and that it is very popular advice to advise them to do it, I regret that medical advice is sometimes given on that basis.

The other trouble is the question of early diagnosis. How are you going to get the average man in medicine to use the means of early diagnosis we now have at hand? Why do they continue not to examine sputum? Why send a patient to pay twenty dollars for an X-ray when his sputum has never been examined? The fault does not all lie with the quacks in the medical profession. We have the beam in our own eye too. I had two patients referred to me last week, one, an advanced case, sent by one of the best men in the State who had watched him two years and had only just thought to examine his sputum; the other one an ideal early case, coming from one of the various "quacks" in our State. The latter was a little suspicious the man had tuberculosis and sent him for an X-ray and frankly wrote me he didn't know anything about tuberculosis, but the symptoms had suggested it so he had asked for an X-ray.

Our remedies for these shortcomings lie in raising the standard of our own work, in continuing the education of the public and in continuing the consultation services of all our clinics and hospitals, putting them as freely as possible at the disposal of the physicians.

One thing further that helps a great deal in this regard is to have your medical staffs of your institutions join the local medical societies; attend their meetings; and make personal contact with the physicians. Some Boards seem to think it is a waste of money for their medical superintendent to attend a meeting in an adjoining county. They cannot spend money better.

My next question (and a most important one) is:

"Can we fix a definite ratio of beds needed for any given State or locality based upon the total yearly deaths or number of cases reported?"

That is hard to do. Mr. Drolet shows that only eleven States in our Union have beds available equal to the total annual deaths. Connecticut is one of them. We have available a little over thirteen hundred beds. Our deaths for 1926 from all forms of tuberculosis were eleven hundred and eighty-six. We have therefore a few more beds than deaths.

Now, what is our situation as regards our waiting list? An active case needing bed care, if he will go to any institution where there is a vacancy, can get care in two or three weeks. The early case can be taken care of with but a short wait. It would seem, superficially, as though we were pretty well hospitalized and might have some vacant beds. I don't think so and for three reasons:

The first is that the sanatoria are becoming more popular as their service improves and people can be persuaded to go there easier. Our reported cases are fifty per cent higher than our deaths, and in Connecticut no case is reported unless the Doctor thinks he will have to sign the death certificate inside of a year and wants to be safe. So the number of active cases that need treatment is quite a good deal higher than the number of deaths.

The second cause is that the physicians are more and more using our sanatoria for purposes of diagnosis—sending us cases in which they suspect tuberculosis but where they have not the facilities for close clinical study at home. This is a service which the sanatorium can give better than the general hospital and which is certain to meet an increasing demand as the profession and the public realize its value.

In the third place, we have got to prolong our term of treatment in our sanatoria. You cannot cure tuberculosis in two or three months. You cannot train even a most intelligent patient to grasp the new conception of the values of his daily life in which he considers his health in the same routine manner as his meals, his sleep and his job in a period of a few weeks. It takes from three to four months minimum to teach a patient this and we all know it takes longer than that to get any real healing in the lung. We are now inclined to put six months as the minimum which a good early case ought to stay under treatment.

What do our statistics say? Mr. Drolet's study shows of ninety-six thousand cases in the hospitals in this country, sixteen thousand of them left in less than one month's time, which was time and labor thrown completely away. Twenty-three thousand more left in three months; thirty-nine thousand of the ninety-six thousand were treated for a length of time, which to my mind, is utterly inadequate even to train a patient. And out of the whole number of patients, only thirty-five thousand stayed six months under treatment, and that includes the advanced and far advanced cases, as well as the early ones.

We have got to increase our length of stay in the sanatoria to get results at all. And with the need to increase the length of stay, with the increasing application of patients for sanatoria treatment, and with the doctors commencing to send in borderline cases for diagnosis, I can see no reason to fear we shall be over-hospitalized in the coming years even with a good many more beds than we have.

Now if we do insist upon it, what are we going to answer to the people who are saying now as they said twenty year ago, "If you go on with your hospitals, you are going to have a lot of vacant beds that the taxpayers are not getting any returns on." Mount McGregor has shown us definitely what use we could make of beds which are vacant, granting that we should have any. Tuberculosis is fifth in the causes of death. Heart disease and diseased arteries last year caused three times as many deaths as tuberculosis. The Metropolitan Life Insurance Company have shown how to handle cardiac cases perfectly well in the accommodations of the tuberculosis sanatorium. The routine, the buildings, the general regime, are all easily altered to take care of cardiacs. If ever we get where we have vacant beds in our tuberculosis sanatoria, there is the work lying ready at our hands.

In the case of the advanced hospitals, we have always more or less used wards of chronic disease hospitals to care for advanced cases of tuberculosis. The reverse is perfectly simple. When we don't need them, we can use the separate wards to care for chronic diseases and the care of chronic disease is today the most pressing problem of the physician and social workers, who puzzle in vain over what to do with the cases nobody wants and where there is no place to send them?

The last question I asked was, "Has our labor and expenditure to date been justified fully?"

I will let you write your own answer to that. I won't take up time with it. Any way that you choose to figure it, on the value of the human life, on the value of the earnings of the patients who have gone back, on the value of the public health work done, on any basis one chooses to figure it, I think the public has

.ad an ample return from its money for tuberculosis.

So far as I can sum up, I should say our method has been in the right direction; our work has been like all human work, imperfect. We have many faults that we have to correct in the work we have done to date, but I can see no reason to fear that we are going to be over-hospitalized for tuberculosis for many years to come, and that certainly the ratio of a bed to a death is the minimum to which any State ought to work.

THE SIGNIFICANCE OF THE TUBERCULOSIS WORK IN CATTARAUGUS COUNTY*

By **LAWRASON BROWN, M.D.,**
Medical Director Trudeau Sanatorium, Saranac Lake, N. Y.

I HAVE really come here today to learn. It is true I am of the army occupation but on a different part of the firing line. This is both an advantage and a disadvantage. I come in contact with what might be called the failures of the preventive campaign. They have developed tuberculosis in spite of all the measures instituted to prevent it. We have from time to time attempted to determine how and where they contracted their disease. At the Trudeau Sanatorium fully one-half can give no information whatever about the source of their infection and the remainder are for the most part more or less hazy about, or in complete ignorance of, its source. We know a great deal and at the same time very little about the etiology of tuberculosis.

Some years ago a very noted German would have had us believe that all pulmonary tuberculosis came from infection in childhood and indeed from milk infected with the bovine tubercle bacillus. We know now that von Behring felt strongly in regard to the type of tubercle bacillus that caused pulmonary tuberculosis, but the conception that pulmonary tuberculosis arises in an infection at a very early age, often before the fourth year, still lingers in the minds of many workers. I have always opposed such a conception, but why, I do not know. Possibly it is due to the strain of Irish blood that runs in my veins. For years I have felt that we were attacking the problem both too early and too late. By this I mean that the infections of infancy, while they play an important part in pulmonary tuberculosis, are not the infections that directly cause it. Furthermore, I would suggest that the studies we have made of well-developed pulmonary tuberculosis do not concern the most critical time of the life of the individual who is later to be found with manifest pulmonary tuberculosis.

Some years ago I suggested to Dr. Lyman, at that time president of the National Tuberculosis Association, that he should stress tuberculosis work during what might be called the high-school age. Since then many interesting facts have accumulated to emphasize the importance of this period of life. Until recently we have been strangely ignorant how tuberculosis acts in the body at this time of great strain. We have long realized that pulmonary tuberculosis and indeed other forms might remain latent for years, but when this latent infection became first discoverable by any methods at our disposal we have until recently been unable to say. I mean by this that we have been unable to say when latent became manifest tuberculosis. The study of this high school age-period has been undertaken during the last few years by Rathbun in Chautauqua County, New York, and most interesting data has been collected. Chadwick in Massachusetts, and Opie and McPhedran in Philadelphia have also contributed to the data. This work has great significance for the work in Cattaraugus County and indeed for all prophylactic work. Several very interesting points have been brought out. The first concerns the selection of children for further study in regard to tuberculosis infection. The work in Cattaraugus County under Dr. Douglas and Dr. Jensen has clearly shown that children with loss of weight amounting to only 10 per cent show little if any more tuberculosis than the average school population. But if the loss amounts to 25 per cent, then a very large proportion are tuberculous. Hitherto the rule has been to select all children 10 per cent or more under weight. In some instances these are then given the tuberculin skin test, most often the cutaneous, less frequently the more accurate intracutaneous test. Those who react are then in some cases subjected to roentgenological examination. This method of selection, I believe is faulty, for the following reasons:

Rathbun has found that many of the children with definite X-ray lesions of pulmonary tuberculosis show no loss of weight and would be overlooked completely by a selection such as I have described. We have taken X-ray films of the entire school population of Saranac Lake and our results coincide with those of Rathbun. Furthermore, he has found several well-marked cases among the athletes, among members of the football and basketball teams. Such figures, such observations would seem to force upon us the necessity of studying every high-school student. They stand at the threshold of the real activities of life. But recently they have passed through puberty. Strenuous athletic games call for a vast expenditure of muscular energy. School work begins to grow more severe. I have had a growing feeling that in the next few years we shall have many observations that will force us to conclude that the time to attack adult pulmonary tuberculosis is from puberty to the 20th year. I am slowly coming to the conclusion that the great majority, I had almost said over 90 per cent, of those who are found to have pulmonary tuberculosis after the 20th year have definite discoverable signs of it in the second decade. To discover the vast majority of these cases a roentgenological examination is necessary. These cases must be discovered for they are the future parents, they are to become in some instances the silent carriers of the tubercle bacillus. I mean by this that some of them will show tubercle bacilli in their sputum only when they have attacks of what we call grip. Healthy individuals still maintain their right to cough at will without covering the mouth, and physicians are often glaring examples of it, and under such conditions it requires no great imagination to picture how the tubercle bacilli may be innocently sprayed and spread. The significance of the Cattaraugus County Demonstration is that every means to prevent the spread of tuberculosis can be applied, and furthermore, that studies over a number of years will furnish us with data that can be duplicated in few other places. The population it not overwhelming, the cities are relatively small, when compared with Syracuse and a large proportion of the inhabitants rarely change their place of residence. I am, of course, only re-stating well known facts but their significance in the etiological and prophylactic studies conducted in the county cannot be over emphasized. The work already accomplished has been splendid and the work in the future holds wonderful promise.

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TUBERCULOSIS AND THE GENERAL PRACTITIONER*

By EDWARD R. BALDWIN, M.D.,
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ONE of the best measures for finding tuberculosis and impressing the doctor and the family with its importance is through the medium of the X-ray picture. Dr. Jensen confirmed that opinion when I visited Olean and said that many times when a family doctor was hostile to his program of doing something, he was able to show him a picture and the doctor began to take notice; then he wanted a consultation and to know more about other cases he had. This is an avenue of approach which perhaps has not been fully worked and, I hope it is being increased. I believe it is worth a good deal of money invested in that particular field.

We have several kinds of doctors. We have the doctor who belongs to the modernists or the progressives, if you like. We have the irreconcilable doctor; that is, the die-hard doctor; and we have the doctor who has to slave in order to keep his body and soul together and who thinks his patients belong to him and should not be disturbed.

In undertaking any sort of demonstration of a public health character, there are certain diseases that the doctor is very jealous of, but he often seems willing to have tuberculosis taken out of his hands. I think the education of the public more than the education of the doctor has had a good deal to do with the doctor's acquiescence in having clinics and examinations and so forth done in the schools and elsewhere. When the public demands something, the doctor has to fall in line sooner or later. Under such circumstances the public health nurse must be a paragon of tact, and the consulting doctor an angel of diplomacy. We are uprooting certain settled customs of medical practice in demonstrations such as those of Cattaraugus County. I have been a country practitioner myself and know the attitude of the country doctor, I have heard him talk, and I know it is a difficult problem, and the greatest sympathy should be shown for the feelings of men who are entirely honest and have been honest in their practice and faithful to their work in midnight calls and all others, paid or unpaid. They present a problem that is worth considering and being solved sympathetically. I have a feeling that one of the helpful things that these demonstrations can do is to give such men vacations or visits to clinics and post-graduate courses. It may in many instances be a difficult thing to select the proper ones, but it is a plan which can be worked out.

I would also like to emphasize the danger of making a diagnosis of tuberculosis too soon. It is a very serious matter to make it in an adult. It is even more serious to try to make a diagnosis in a child, particularly of school age. The high school age is a most difficult one. Students dislike being examined. I heard of one place where the only way they got high school boys and girls to come to the examination was to say to them, "They want to examine your heart so as to see if you can go into athletic work," and they examined the lungs at the same time. Strategy has to be used, but education is the secret of success. A serial X-ray record of the school child should be made. We should know enough today about tuberculosis to be able to follow it from the time of its seeding to the time when it is beginning to blossom. I don't think we know all about the disease that we should during the adolescent age.

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*Given at the Conference of the State Charities Aid Association, New York City, January 19, 1927.

The X-ray film and the skin test should go hand in hand. They are both indispensable. These are things that can be done in the promotion of this investigation. Time, too, is a very important element. It takes a year to develop tuberculosis from an infection in many instances. The amount of dosage of infection also has a good deal to do with it. But we must also remember that small dosage, plus poor environment, may develop an acute tuberculosis from a very small amount of seed.

We also wish to know whether tuberculosis revealed by an X-ray film in a child,—a small calcified focus in the lungs or rest,—for example—really develops into the adult type. We have no evidence that it does from the studies that Dr. Opie has made, but we ought to have more figures and be able to say whether or not this is going to happen.

SIX CASES OF TRICHINOSIS IN ONE FAMILY

By MARTIN WEISS, BINGHAMTON, N. Y.

BEFORE entering into discussion of the six cases of Trichinosis, that I have found and treated in one family, allow me to say a few words concerning the definition, etiology and evolution of this disease.

Definition: An acute condition caused by the Trichinella spiralis and characterized by remittent fever, oedema of the face, pain and soreness in the muscles, and gastro-intestinal manifestations.

Etiology: Trichenella spiralis is the cause of the disease. The adults live in the upper part of the small intestines, the embryos pass by the lymph and blood stream to the striated muscles, and there the encysted larvæ live. The male is about 1-16 in. long, and the female about 1-10 in. long. Trichinosis in man results from eating imperfectly cooked or raw pork containing the living Trichinella spirella. Raw sausages, ham and even beef may contain living larvæ.

Evolution: When Trichinous meat is eaten, the cyst wall is digested in the stomach, and the worms are liberated and pass actively into the small intestines where they reach their maturity in 2 to 3 days. On about the 6th day the fertilized female burrows into the mucosa of the small intestines about 1-5 of its length and the embryos escape from the vulva which is located in the anterior portion of the worm into the tissues, and are then taken up by the lymph or blood stream and carried to the striated muscles. One female may give birth to as many as 1500 embryos in a period of six weeks, which is usually the sexual life history of a female Trichinella spirillus. At about the 10th day the embryos are found in the striated muscles. The embryos being smaller than a red blood corpuscle are, therefore, easily carried by the blood stream. The embryos grow very rapidly in the striated muscles, completing their development in about 15 days. They then begin to coil up and to encyst themselves. Encystment begins about one month after infection and completes itself in about 12 weeks. These embryos may live 20 or 30 years after encystment. When meat containing cysts is eaten the cyst wall is digested; the embryo escapes, develops in the small intestines, and the cycle is again repeated.

Resistance: Ransom has shown that a large proportion of encysted trichinæ are quickly killed at 53 degrees to 55 degrees C. (130 degrees F.) Salt and antiseptics penetrate the capsule slowly, especially after it is calcified.

Occurrence: About 2½ per cent. of all hogs contain living or dead trichinæ. Rats are easily infected and in slaughter houses, as high as 50 per cent. are trichinous. Billings found all rats in a slaughter house in Boston trichinous. Experimentally guinea pigs and rabbits are easily infected.

Case 1. On Jan. 8th, I was asked to see two members of a family of six; a mother and one boy about 12 years of age, who were confined in bed complaining of being quite sick. The mother had not been feeling well for about one week or so, on account of severe rather excruciating pains across her forehead, a fever, general bodily (grippe) pains; a diarrhea of three days duration, and most important of all oedema of both eyes. On examination, I found her heart and lungs negative, spleen was not palpable, nor was there any tenderness or rigidity in any part of her abdomen. Extremities were negative. Her gastro-intestinal symptoms were, a coated tongue and a diarrhea of 6-8 movements a day for the three days previous, and no vomiting, temperature 102 degrees, pulse 110. On the following day there was a rise in temperature and pulse, and the oedema of her eyelids were so marked, that her eyes were completely closed. Examination of her sinuses and eyes were negative, except for a slight conjunctivitis. Late that afternoon she began to show signs of a gastric-intestinal upset; complaining of feeling nauseated; having pains over epigastrium, and finally began to vomit. She vomited several times that night, and during the next morning. The oedema of her eyelids began to improve with the application of cold compresses to her eyes, the temperature and pulse began to decline, and on the 4th day she was feeling fairly well, when her temperature and pulse took another sudden rise and the patient began to complain of pains and coldness in her calf muscles and thighs, and had chills. She was unable to stand on either her toes or heels. A blood count at that time revealed a 14,200 leucocyte count and an eosinophile count of 40 per cent. the polys being decreased and the lymphocytes increased. Urinalysis was that of any acute febrile condition, showing a slight trace of albumin and a few pus cells. Examination of several specimens of stool did not show any parasites or ova. During the next two weeks, a blood count was taken every other day; and on all examinations there was a leucocytosis an eosinophilia, a lowered poly count and an increase in large lymphocytes. Daily examinations of stools were negative. A spinal puncture was done on about the 2nd week of her illness, and the fluid examined, but was found to be free of Trichinosis spirelli, spinal Wassermann was negative, and the cell count normal. A resection of a piece of muscle was not done. On Jan. 28th, 1926 about twenty days after the onset of her symptoms, a report was submitted that parasites resembling Trichinella spirelli were found in the stools. On Jan. 30th I received a similar report, and on Feb. 2nd ova were found. I am very sorry that a picture could not be taken of some of these, as the slides dried too quickly due to improper fixing. The complete blood picture and other clinical findings from the entire family will be given later.

Case 2. On the same day that I was asked to see Case 1, I was also asked to see another member of the family, a boy 12 years, who was

CLINICAL FINDINGS

Blood Examination

Name	Leucocytes	Polys	Lymph	Large Mononucleus	Eosin	Trans	Red Blood Count	Hemoglobin
Mr. John								
1/26/26	10,200	45	24	6	22	3	....	..
2/ 1/26	9,660	37	22	3	33	3	....	..
2/ 8/26	7,800	41	29	5	24	1	4,320,000	73
Elizabeth								
1/25/26	17,200	40	29	3	27	1	....	..
1/30/26	15,200	44	17	2	35	1	....	..
2/ 6/26	13,200	38½	39	2½	20	..	....	..
Anna								
1/25/26	10,800	28	36	3	31	2	....	..
1/30/26	9,240	20	39	19	21	1	....	..
2/ 6/26	9,200	41	47	3	9	..	....	..
Paul								
1/25/26	19,220	42	36	2	17	3	....	..
1/30/26	10,860	21	54	2	21	2	....	..
2/ 6/26	13,400	46	28	5	17	2	4,296,000	..
Lottie								
1/25/26	14,600	51	38	6	5	..	....	..
1/30/26	11,200	37	21	11	27	2	....	..
2/ 6/26	10,720	45	24	6	19	6	4,256,000	75
Mrs. Anna Micha								
1/12/26	14,800	40	11	7	39	4	3,866,000	..
1/16/26	10,880	44	14	2	40	..	....	..
1/19/26	9,000	40	26	6	25	3	....	84
1/22/26	9,300	42	38	..	17½	..	....	..
1/23/26	......	54	33	½	12	..	....	..
1/25/26	......	38	46	½	13	..	....	..
1/26/26	8,100	45	37	1½	15	..	....	..
1/27/26	......	38	38	½	22	..	5,100,000	..
1/29/26	6,500	50	40	..	10	..	....	75
2/ 6/26	9,000	51	37	½	11½	..	....	..
2/27/26	10,100	57	24	7	6	5	4,608,000	80

Spinal fluid examination—Neg.
Urine analysis—Neg.
Diazo reaction negative on all urines.
Feces—positive for Ova, Jan. 28th, 30th and Feb. 2, 1926.

complaining of very severe gastro-intestinal disorders, he had been in bed for 2 days previous, with vomiting spells, excruciating abdominal pains, diarrhea, severe headaches. Oedema of the eyelids were absent and there was no soreness or tenderness in his muscles. Temperature was high and pulse rapid. On the following day he showed signs of improvement, but still vomited and had the diarrhea. After being in bed for five days he was free of all signs of symptoms of a gastro-intestinal disorder. A blood count was done on Jan. 25th about 2 weeks after onset of his disease, which showed the following findings. Leucocyte count, 19,220, polymorphoneuclea leucocytes, 42 per cent. Lymphocytes, 36 per cent., large monoculears, 2 per cent., Eosinophiles, 17 per cent., Transitionals, 3 per cent. Several blood counts were done after that at intervals of one week, and the boy was watched closely for signs or symptoms but failed to reveal any.

Case 3 *to* 6. Four other members of the family; father and three young girls, who complete the family, denied showing any manifestations of Trichinosis; but on having their blood examined, all showed a high leucocyte and eosinophile count. They all went on doing their daily routine work, without any discomforts. In conclusion I might say, that, this family eat but very little pork or sausages, but they do eat beef and frankfurters. They were unable to state whether this disease manifested itself after eating meat of any kind.

TREATMENT:

No. 1—Daily high saline colonic irrigations.

No. 2—Course of calomel and castor oil.

No. 3—Daily injections of 1 gr. thymol in 1 c.c. of sterile olive oil injected intramuscularly for seven days.

No. 4—Symptomatic.

No. 5—Examining of blood, urine, spinal fluid and feces.

POINTS OF INTEREST:

No. 1. There is no definite ratio between the leucocyte count and the eosinophile count.

No. 2. The eosinophelia is no index to the severity of the disease.

No. 3. The spirellum may be found in the stools several weeks after the onset of the disease.

No. 4. The disease may begin differently in different members of the family, and some may never possess any of the pathognomonic signs of the disease, as oedema of the eye-lids, muscular pains, remittent fever, and gastro-intestinal manifestations, and so go being unrecognized.

In regard to the progress of the cases, I am pleased to write that they have all recovered. The mother having been operated upon in October, 1926, for abdominal adhesions and the children haven't had a sick day since. It might be well to include the two following blood counts on Mrs. Micha:

March 31, 1926: W.B.C., 8,000; R.B.C., 4,320,000; hemogl., 79%; color index, .91; polys., 59%; s. lymph, 28%; l. lymph, 4%; eosin., 5%; basophiles, 2%; transitionals, 2%.

Sept. 15, 1926: W.B.C., 7,400; R.B.C., 5,930,000; hemogl., 80%; color index, 79; polys., 71%; small lymph., 19%; large lymph., 7%; eosin., 2%; transitionals, 1%. 0

The above blood count proves that Mrs. M. has clinically recovered.

SCHEME FOR NURSE EDUCATION

By ALBERT T. LYTLE, M.D., BUFFALO, N. Y.

A PROMINENT hospital manager is reported as publicly saying among other things—"So, while we believe in nursing education, we do not believe that the hospital should be made an appendage to a nursing school or any other kind of school." Yet he leaves the impression that he is ready and anxious to maintain a nurse training school.

Very recently the legislative body of the second largest organization of doctors of medicine in the world, among other things, resolved —"That there shall be a basicly trained nurse, specifically trained for bedside work and that this training does not necessarily qualify such a nurse for executive positions of public health work without subsequent further study on her part."

It, therefore, must be conceded, viewed from the standpoints of the hospital and the physician, that the nurse must have some specific training or education.

This proposition being granted three questions arise, the answers to which materially would aid in solving the problem of the education of the nurse. They are: (a) What degree of intelligence and skill, measured in terms of education, does the patient require of the nurse? (b) What degree of intelligence and skill measured in terms of education does the doctor of medicine require of the nurse as his assistant in the care of the patient? And, (c) How and to what degree should the hospital be responsible for the education of the nurse to meet such requirements?

When in 1903 the people of the State of New York through their Legislature established a legal status for trained nurses and directed the University of the State of New York to standardize nursing education, and to grant certificates to registered graduate nurses, trained nursing passed forever from classification as a trade or handicraft to that of a vocation or profession.

Conceding then that the professional practice of nursing is no longer an industrial activity, it follows that the preparation for its practice requires educational qualifications comparable to that of any other profession and that the law only should recognize one basic type of professional nurse as it does in other professions. Fundamentally nursing is caring for the sick. Caring for the sick at the bedside carries with it transcendent individual responsibility. Therefore, the basic education for bedside nursing should be as advanced and as thorough as for any other type of nursing activity.

Conceding that the basic function of the hospital also is to care for the sick as well as to promote public health, it follows that the hospital is not instituted nor financed to function as an educational institution although so used by medical and by nursing schools.

In discussing the cost to the hospital of nurse education an astute physician and hospital manager says: "The expense goes to the hospital, which, of course, eventually goes to the patients occupying the hospital or to those who support the hospital." The dean of a university nurse training school, a trained nurse of keen vision and wide experience, considers the costs of the present system of nurse education as "too costly a program for the hospitals." While, a wide-awake State official, on the other hand, states that the cost of maintenance of hospital "nurse training schools in New York State has not as yet become as burdensome as the hospital administrators would have the public think" and that the administrators "still find they can run their hospitals cheaper by using student nurses to do the work of the hospital rather than in any other way."

Nevertheless, the attitude of the managers of hospitals seems to be that the present system of nurse education is placing an unjustifiable financial burden on the hospital. To the student of medical economics their contention is warranted as the widening field of nurse activity not only requires much greater educational preparation than formerly but probably the end is yet nowhere near attained.

The most ardent opponent of more advanced nurse education without a scintilla of doubt would consider the nursing needs of the patient to be the paramount issue in the education of the nurse. Leaving out any consideration of the needs of the patient for whom even the very best is none too good, whether it is liked or not, the student nurse insistently is demanding improved and advanced educational opportunities that will permit her not only to care for the sick at the bedside, but as well capably to carry on vital far-reaching public health and welfare activities and to hold positions of trust, management and research in institutional, educational, governmental and social service.

Conceding what just has been mentioned then the cultural education of the nurse must be greater than formerly, and within obvious limits the wider the better. It, therefore, follows that on its present established basis, the hospital should not be asked to furnish this part of nurse education. One clear-headed, far-sighted physician—a hospital manager—considers that "the training of a nurse is practically a university business, or a business which belongs to a school of technology . . . up to the time when the nurse begins to take her practical training." While, the superintendent of a very successful nurse education school is "convinced that with the increasing number, not only of young women going through the high school, but completing the four years at college, it ought to be quite possible to meet the nursing needs through a professional preparation imposed upon at least four years of high school."

Now, it appears that after 23 years of operation of the New York State Registration Law many institutions are woefully short in supplying minimum necessary educational facilities for the training of professional nurses. It, therefore, would seem that the present system of nurse education has become, not only antiquated, but markedly inadequate, and, that soon radical changes must be made, not backward but forward.

Considered from the standpoints of the public and the hospital, the hospital only should develop experience in nursing care of the sick at the bedside by applying principles and practice of nursing taught in extra-hospital schools. Under the present very limited instruction required by the education law, such extra hospital education easily could be given in the high schools and academies of the State in a vocational course preparatory to entrance to approved hospital training schools where expert bedside experience could be obtained on a "quid pro quo" basis of remuneration. The qualifying hospital would secure under-graduate resident nurses with theoretic instruction all finished. The economic loss from nurse-labor turnover, from wastage due to inexperience, and from lessened housing and maintenance charges would be no inconsiderable sum. The hospital would secure moderately experienced and efficient service from the very beginning, thus making possible a lessened personnel. While it easily is conceivable that the patients, the paramount issue, would receive more skilled and satisfying attention.

Dr. Charles R. Mann, Director of the American Council on Education at the annual Congress on Medical Education, Medical Licensure and Hospitals at Chicago, February 15-18, 1926, in discussing the defects of medical curricula suggested the use of what is known in industry as "job specifications" for "application to the medical profession so that as far as possible students likely to succeed in medicine could be picked during their elementary and high school course and only those properly fitted for the study of medicine would be permitted to undertake it." It easily is conceivable that the suggested high school-preparatory-nurse course automatically would eliminate undesirable pupil nurses, whether from mental or physical incapacity or from romantic notions.

A survey of the various courses offered students in high and vocational schools and in academies does not make the possible establishment of nurse education courses appear at all Utopian.

A tentative scheme for nurse education through the high school, the hospital and the university would have the pupil begin at about age 13-14 and become eligible to contest the New York State examinations for R. N. at about age 22-23. If the pupil desired to take university degrees in nursing, the high school diploma secured at age 18-19 would admit to courses securing at age 23-24 a diploma as Bachelor of Science in nursing, or, as a Public Health Nurse. If the pupil desired further education then master and doctor degrees in nursing could be obtained after 1-2 to 4-5 more years.

During the high school period experience could be obtained by extra-mural affiliation with creches, orphan asylums and homes for cripples and for old folks. Later experience could be gained in hospitals, general and special, and in field work in welfare organizations, somewhat after the way shown in a table marked "E" accompanying this communication.

The high school-vocational course should contain topics that could be divided into cultural, technical and vocational subjects. Based on Regents' values the cultural subjects would give 96 1-2 credits, the technical 17 credits and the vocational 32 credits, a total offering of 145 1-2 credits of which 102 1-2 would be required and 43 be optional, somewhat as outlined in a table marked "D" accompanying this communication.

The two years hospital nursing course should require for admission a provisional nurse diploma or certificate from the University of the State of New York. Theory should cover a

TABLE 1

TOPICS: YEARS SUBJECTS, AND CREDITS—PROPOSED NURSE VOCATIONAL HIGH SCHOOL

	Years	Credits
CULTURAL		
Language and Literature		
*English	4	16
Foreign	4	20
History and Philosophy		
*American	1	5
*Civics	½	2½
*Economics	½	2½
*Nursing	½	2½
*Psychology	½	2½
Esthetics		
Vocal Music	4	4
Drawing	2	4
Mathematics		
*Commercial Arithmetic	1	5
Bookkeeping	1	5
*Algebra	1	5
Science		
Physical Geography	1	5
*Physics	1	5
Zoology	½	2½
*Biology	½	2½
*Chemistry	1	5
*Botany	½	2½
		96½
TECHNICAL		
Science		
*Anatomy, Phy. and Hyg.	2	5
*Bacteriology	½	½
*Materia Medica	1	½
*Applied Chemistry	½	½
*Sanitation	½	½
*Pathology	½	½
Home Economics		
*Foods	1	½
*Dietetics and Cookery	3	5
*Clothing	1	½
*Home and Hospital	½	½
*Hosp. Housekeeping	½	½
Typewriting	1	2½
		17
VOCATIONAL		
Theory		
*Emer. Nursing	½	1
*Medical and Surgical	3	10
*Bandaging	½	½
*Massage	½	½
*Communicable Diseases	1	2½
*Pediatrics	2	2½
*Obstetrics	3	5
Practice		
*Hospital Service	4	10
		32

SUMMARY

Cultural Subjects Credits	96½
Technical Subjects Credits	17
Vocational Subjects Credits	32
Total Credits	145½
Optional Credits	43
*Required Credits	102½

* Subjects Required.
1 credit is an equivalent of
1 hour recitation weekly
for 40-weeks-year.

minimum of 416 hours in lectures and in laboratory, and practice 4,192 hours of bedside and clinic training.

The distribution of the total hours should be into 24 units, 7 in medicine, 7 in surgery, 3 in obstetrics, 4 in nutrition, and 3 in pediatrics, somewhat as outlined in the table marked "F" accompanying this communication.

TABLE 2

OUTLINE OF NURSE EDUCATION UNDER HIGH SCHOOL-HOSPITAL-UNIVERSITY SCHEME, SHOWING STUDENT AGE, SCHOOL ATTENDANCE, HOSPITAL AFFILIATION, ETC.

Age	Progress	School	Affiliation for Clinical Experience	Credentials	Duration Course
13	Leave	Primary			
14	Enter	Secondary	Extra-Mural		
15	Attend	Secondary	Creches	High School Diploma	
16	Attend	Secondary	Orphan Asylums	as	4 Years
17	Attend	Secondary	Cripples' Homes	"Provisional Nurse"	
18	Leave	Secondary	Old Folks' Homes		
19	Enter	Hospital or University	Intra-Mural	Hospital Diploma	
20	Attend	Hospital or University	Extra-Mural		2-3 Years
21	Attend	Hospital or University	Approved Hospitals	Certificate "R.N."	
22	Leave	Hospital			
23	Leave	University	Approved Hospitals Nursing Societies	Dip. B. S. in N. Dip. P. H. N.	3-4 Years
24	Leave	University	Approved Hospitals Nursing Societies	Dip. M. Sc. in N.	4-5 Years
			Private Practice		
25	Experience		Institutions		
26	Experience		Public Health		7-8 Years
27	Leave	University	Teaching	Dip. D. Sc. in N.	
			Research		

TABLE 3

DISTRIBUTION—SUBJECTS AND TIME—TWO YEARS NURSING CURSE

Admission

High school course or equivalent—being preparation for nursing.

Required: Biology, Psychology, Commercial Arithmetic, English.

Professional Education: 24 months—less 2 months vacation.

Distribution:	Months	
Medical	6.5	or 6
Surgical	6.5	or 7
Obstetrics	2.7	or 3
Pediatrics	2.7	or 3
Dietetics	3.6	or 3
Vacation	2	or 2
	24	or 24

Theoretic—Minimum 416 hours—Class work including laboratory.

Subject	Hours
Anatomy, Physiology and Hygiene	24 hrs.—by M.D.
Bacteriology and Pathology—applied	12 hrs.—by M.D.
Chemistry, Drugs and Solutions	16 hrs.—by M.D.
Cookery and Nutrition	24 hrs.—by Dietitian
Medicine and Specialties	26 hrs.—by M.D.
Surgery and Specialties	26 hrs.—by M.D.
Obstetrics	16 hrs.—by M.D.
Pediatrics	12 hrs.—by M.D.
Communicable Diseases	12 hrs.—by M.D.
Nursing Procedures, including Housekeeping, Bandaging, Laboratory	248 hrs.—by Nurse
	416 hrs.

Clinic—Maximum 4,192 hours, 12 hours daily, 6 days weekly, less 5 hours (meals, study, class).

Department	Share
Medical Department	7/24 of total hours
Surgical Department	7/24 of total hours
Obstetrical Department	3/24 of total hours
Nutritional Department	4/24 of total hours
Pediatric Department	3/24 of total hours

EDITORIAL

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For list of officers of County Medical Societies, see this JOURNAL, advertising page xxx
Mr. Stryker's address will be 15 Park Place, Tel. Barclay 5550, after April 25.

THE ANNUAL MEETING

The arrangements are approaching completion for the Annual Meeting of the Medical Society of the State of New York to be held on May 9-12 in Niagara Falls. The Scientific Committee, headed by Dr. Samuel J. Kopetzky of New York, has prepared a balanced program which appears on page 420 of this JOURNAL. The local committee, under the Chairmanship of Dr. Frederick J. Schnell of North Tonawanda, has arranged for the accommodation and entertainment of the physicians, while an associated committee of ladies with Mrs. W. H. Hodge as Chairman, will look after the comfort and pleasure of the attending ladies.

Niagara Falls is a compact city, and all the hotels and meeting places are within an area of one block, thus insuring that convenience and sociability that has always been associated with the meetings of the Society when they have been held in one of the smaller cities.

MEDICAL SOCIETY OFFICE HOLDING

The officers and committeemen of the Medical Society of the State of New York, its district branches, and its component county societies, number over one thousand physicians, or about ten per cent of the membership of the State Society. To hold office in an official medical society is both an honor and a responsibility. The honor is often qualified by the necessity of filling a position for which the highest type of man is not always available. It has been an established custom that office holding shall be by rotation so that every member may have an incentive to aspire to the positions and develop his talents in the specialties of civic medicine and public health.

It is commonplace to say that physicians differ widely in their qualifications for office holding just as they differ in other respects; but it is a mistake to criticize an office holder for his shortcomings when he lacks the genius to fill the position according to the very highest standards. It cannot be expected that one out of every ten physicians shall be a genius in administrative medicine.

Shall medical office holding be discontinued and societies lapse in their activities because of the lack of leaders of the highest standards? Surgeons, and neurologists, and other specialists are extremely tolerant of family doctors who are confronted with special problems beyond the standard of their ability and attainment. Intolerance is found among public health officials and the workers in lay organizations, for their standards are set at the top by leaders in research laboratories and medical schools; while standards of the private practice of medicine are largely those which the average doctor can put to practice.

A county medical society deals with the average doctor treating a person of average intelligence. Its membership is made up of doctors who must earn their living by pleasing their patients. The members have no time to experiment with new theories or undertake new methods of reaching the people. Yet they are keen judges of what is workable, and are anxious to undertake new activities which will be appreciated by their fellow practitioners and the public. It is therefore desirable that average men from the ranks of the profession should fill the offices and committees of a county medical society. It is far better that the average members should run the society than that it should be dominated by impractical theorists whom the members will not follow.

However, let no one make the mistake of thinking that men of genius and high standing in public health and civic medicine have only a minor place in the county society. They are the powers that make the society go, and whether they hold office or not, they supply the force which is behind the activities of the society. Fortunate is that society which has a few leaders in public health and civic medicine who quietly act as consultants and advisors to the officers in their endeavors to reach both their professional brethren and the public.

Office holding in a county medical society is an opportunity for acquiring knowledge and self development. It is a laboratory of experience in methods of dealing with people. A member misses one of the great benefits of his medical society if he does not accept an office or a committee assignment and assume the responsibility for some of the activities of the society. There is a joy and satisfaction in doing something useful to others.

An office holder in a county medical society is not to be judged entirely by his tangible accomplishments during his term. He is successful if he retires from office with an increased interest in his civic duties. The ideal condition is that an average member shall take his turn in filling an office or committee; shall use the office for his own education; and shall return to the ranks with an increased interest in the activities of his society.

The present great movement in county societies is that of reaching well people in medical lines. People who are sick demand the attention of the doctor; but skillful salesmanship is needed to sell medical services to a well individual or a community, or even to give it away. Medical practice among the well is now in the stage of demonstration in which the medical profession is expected to give away samples of its wares to the well with the expectation of creating a future demand for such services. The practice of preventive medicine at present is not remunerative to the average practitioner of medicine; and yet the family doctor is conscientious in his wish to serve his family and community along all lines of modern medicine. His present opportunity to discharge the civic duty which stares him in the face, is to work through his county medical society and accept his share of office holding and of service on its committees.

THE A. M. A. CONFERENCE ON PUBLIC HEALTH

The relation of physicians to public health was the principal topic of discussion at a conference called by the American Medical Association on March 24 and 25 in Chicago, an account of which appears on page 428 of this Journal. This was the first conference to be called to consider the topic, and its program was largely tentative, and was designed for the diagnosis rather than the treatment of present conditions. A list of those in attendance was published in the *Journal of the American Medical Association* of April 2, and showed a great preponderance of professional public health workers connected with both official and lay organizations.

The Medical Society of the State of New York was almost the only society of general practitioners of medicine that was prominently represented at the conference, and its President, Dr. George M. Fisher, gave the only concrete suggestion that was made. He introduced a resolution that was carried, that the conference suggest to the Trustees of the American Medical Association the appointment of a committee on Public Relations to work nationally along the lines of a similar committee that is functioning in New York State.

The Conference has great possibilities, and it is hoped that similar ones will be held annually.

THE VERNAL EQUINOX

The New York *Herald-Tribune,* of March 21, has an editorial reference to the vernal equinox,—that critical milestone when the sun crosses the equator on its return journey northward. This event was momentous to the ancients, and the priests performed elaborate ceremonies and did costly sacrifices in order to persuade the life-giving sun to step across the mystical line and so ensure its return to bless the earth with a fruitful summer. And great was the renown and reward of the priests who could control the movements of the mighty sun and dispense light and life at their whim.

Men change the premises of their arguments in accordance with scientific discoveries, but the wheels of the brain are exactly the same that they were a thousand years ago, and the grist of conclusions which they turn out are influenced less by the facts that are poured into the mental hopper, than by the processes to which they are subjected.

Some one sets up an imitation temple of healing labelled "Spinal adjustments." The curious wayfarers flock to it, and the white-gowned attendants say, "Behold the healthy throng who leave our portals. The sun of healing rises and sets at our command."

Every day is a vernal equinox for the quacks.

THE EDITORIAL WASTE BASKET

The waste basket is the most overworked piece of furniture in every editorial office. The amount of ready made copy sent to the humblest of editors is appalling. Mimeographed copies cost little, and if one in a thousand is used, the price of the advertisement is small.

The medical editor does not have to be highly skilled and learned in order to see through most of the schemes which are proposed to him. This Journal recently received from a "News Service" a beautiful photograph of a young Berlin "Professor" who "created a sensation" by "removing the organs of a pregnant woman and so nurturing the child that it was born normal. The ordinary processes continued after the organ had been removed and Dr. X was able to make a motion picture of the development of the child."

There are some who would criticize the editor for refusing even to investigate that news report. An editor of a tabloid morning daily might possibly be interested in a few singles taken from the movie; but even he would find no thrill in the placid countenance of the advertising gynecologist.

SCARLET FEVER

Scarlet fever is unusually prevalent throughout New York State. Every community in which it appears minimizes its danger and points to the mildness of most of the cases as evidence that the disease has lost its former virulence. The fact is that the comparative absence of serious complications is due largely to the intelligent care given to the cases by physicians. Neglect the care of the individual sick child, and scarlet fever would doubtless be as crippling and deadly as ever.

The prevalence of mild cases of scarlet fever is now leading to disputes over diagnoses and the isolation of cases. It was expected that the Dick test and other recent discoveries in the bacteriology of scarlet fever would enable physicians to diagnose the disease as readily and accurately as they now determine the existence of diphtheria.

That expectation has not been realized; and physicians and health officers must still make their diagnoses principally on the clinical symptoms and signs.

The relation of septic sore throat and scarlet fever has yet to be fully elucidated. Clinical observers have noted the occurrence of cases of both sore throat and scarlet fever among the children in families. While all the children of a family, for example, will have sore throat and fever, half of them will have a typical scarlet fever eruption, and the rest will have no visible eruption at all. The question arises, were all the cases scarlet fever?

In one milk-borne outbreak of eighty cases of septic sore throat that were studied intensively fifty patients had scarlet fever eruptions, and only thirty-seven of them showed desquamation. Did all these patients have scarlet fever?

Some of these newer problems will be discussed at the 14th Annual Meeting of the American Association of Immunologists to be held on April 14 and 15 in the new medical school at Rochester, N. Y. An account of the proceedings will appear in an early issue of the *Journal of Immunology*, and will be of interest to every doctor.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Milk Control in New York City: This Journal for April, 1907, records that a hearing was held by the Board of Aldermen on March 7 on the proposal to pasteurize all the milk sold in New York City, unless it came from cows free from tuberculosis, and contained no more than 50,000 bacteria per cubic centimeter. Pasteurization was to consist of holding the milk at a temperature of 167° F. for at least thirty minutes. Regarding the proposal the Journal says:

"The Health Department feels that its most important work is to supervise the conditions under which milk is produced, preserved, transported and sold. The Department of Health has under consideration further measures, but does not think it advisable at present to adopt partial or untried measures. The feeling is that the general pasteurization of the City's milk is too complex an undertaking and that it might lead to neglect in the more important things."

The New York Academy of Medicine took action on the milk problem on March 21 by passing the following resolution:

"(1) That the Section on Public Health of the New York Academy of Medicine does not believe in the necessity of the compulsory pasteurization of all of the milk supply of New York City, but recommends for the present to all those whose milk supply cannot be proven to be thoroughly inspected and wholesome, and mainly the milk destined for the feeding of infants unless it is "certified," to boil their milk when delivered in the morning for three minutes.

"(2) That the health of the City of New York demands a persistence in the policy of supervision of farms, dairies, and creameries, supervision at the points of distribution in the City to the consumer, whether the milk that is distributed has been pasteurized or not.

"(3) That local and State health authorities and the Bureau of Animal Industry of the United States Department of Agriculture should co-operate with milk producers to prevent the occurrence of communicable diseases in cattle and their caretakers."

Those who attended the lectures of Professor Charles Chandler in the College of Physicians and Surgeons fifteen years previous to the date of the above quotation, will recall his thrilling descriptions, controversies and debates with other eminent authorities who were bitterly opposed to his suggestions for the establishment of standards for milk, and for the public control of milk supplies. Professor Chandler won in nearly every particular within a decade, but milk still figures large in public health and politics.

MEDICAL PROGRESS

The Chemical Constitution of Insulin.—Casimir Funk, discoverer of vitamins, announces in a brief preliminary communication in the *Deutsche medizinische Wochenschrift,* January 1, 1927, that insulin consists of and has been decomposed into three crystallizable substances which differ throughout from the parent body. He describes two of these as follows: one body to be known provisionally as A, does not exert a uniform action on animals. In 70 to 80 per cent of normal rabbits tested, an injection of the A substance reduced the blood sugar anywhere from 10 to 50 per cent. The higher the percentage of sugar in the blood the greater the reduction. The same substance is thought to produce this reduction when given per os, but this requires further experimental support. Funk with Landberg has tested the A substance on human diabetics and non-diabetics, but the authors do not care to go on record as yet as to the outcome of these tests although thus far the results agree with those obtained with rabbits. The second substance isolated, to be known for the time being as B, may be regarded as a hormone with very complex action. Given to normal rabbits per os or by parenteral injection the result is a marked increase in the percentage of blood sugar, up to 800 per cent when given as long as six days. It is highly toxic and causes death in about 10 days, the animals presenting anemia and edema. This substance probably plays a role in the genesis of alimentary glycosuria and diabetes.

Treatment of Ulcers by Insulin.—D. Adlersberg and A. Perutz have studied the regenerative efforts of the skin as modified by the local application of insulin. After preliminary experiments with artificial ulcers induced on animals, the first essays on man were in cases of torpid varicose ulcers. In a woman of 61 with large ulcers of 15 years standing, who had gone from ambulatorium to clinic and back again, the results obtained were astonishing. After 3 or 4 daily instillations of insulin solution on these lesions a tendency to heal was already in evidence and soon the whole ulcer area was strewn with islets of granulation. The ulcers changed from dry to secreting and in 10 days epithelization was complete. A similar result was next obtained in an ulcer caused by a burn, and in all the authors have cured 10 cases of these torpid ulcers of long standing by this simple resource. In the mean time two similar cases had refused to respond save imperfectly. Even here there had been a decided and partly successful attempt to heal, but some unknown factor interfered. One patient had pulmonary tuberculosis and an anal fistula while the other lesions were of a fungoid character. The authors are not, strictly speaking, pioneers in this province, for several others had noticed that in insulin cures of diabetes chronic ulcers had unexpectedly healed. They are continuing their interesting investigations into other forms of ulceration.—*Klinische Wochenschrift,* January 15, 1927.

Action of Insulin in Hepatic Disease.—O. Klein and H. Holzer call attention to the fact that the new drug possesses some sort of power over jaundice as a symptom, especially if the patient at the same time receives large amounts of carbohydrate foods. It appears to make no difference how long the jaundice has existed. At Professor Klein's Prague clinic 26 cases of hepatic disease have now been treated in this manner. In 11 cases of catarrhal jaundice the latter symptom promptly disappeared, although they were mostly severe cases of long standing. Even in 5 cases of cancer, although the disease was not otherwise favorably influenced, the jaundice either vanished outright or improved notably and the same is true of chronic hepatitis and cirrhosis. The doses given were very large—80 to 100 units daily. It is known that in hepatic disease the alkaline-base ratio is often disturbed and that in the severest forms there is a marked acidosis (phosphorus poisoning, acute yellow atrophy, etc.) Eight patients were studied from this angle and in four of these an increase in the alkali reserve was recognized by the Van Slyke method. To sum up, insulin seems to affect favorably the carbohydrate metabolism, blood sugar regulation, bilirubin metabolism, acid-base equilibrium, water economy, etc., in these patients, and in hepatic subjects all of these are impaired. Richter and Umber have arrived independently at the same conclusions. The best carbohydrate to feed the patient is dextrose, which, even when given alone, has a favorable action in promoting efficiency of liver function in disease of this organ.—*Klinische Wochenschrift,* January 22, 1927.

Dangers of Insulin Hypoglycemia in Children.—R. Priesel and R. Wagner of von Pirquet's pediatric clinic in Vienna refer to a death from insulin reported from Breslau in a recent number of the *Wochenschrift.* The patient was a girl of 8 years, found to be very sensitive to insulin when the latter was administered for her diabetes. Small doses were sufficient to bring down the blood sugar notably, but the high percentage promptly reappeared so that the girl oscillated between hypoglycemia and acidosis. It was suggested by the Breslau clinicians that the hypoglycemic reaction be strictly avoided in all cases of child diabetes. Since the insulin treatment must be maintained over long months it is not well to intern the child in a hospital but it should be treated at home although there are times when a short hospital sojourn is quite appropriate. In analyzing this death it is apparent that the evidences of severe hypoglycemia were present in the staring look, sweating, and twitchings about the mouth, which symptoms yielded somewhat to ten grams of glucose given by the mouth. Later appeared coma and convulsions which did not yield to intravenous glucose. The Vienna authors appear to believe that the child might have been benefited by much larger amounts of glucose given relatively early. When the Breslau men resorted to larger doses it was probably too late to influence favorably the hypoglycemia. In the von Pirquet clinic insulin has been used for several years in child diabetes and much had to be learned at a high cost before a safe plan could be evolved—for example in regard to the avoidance of the hypoglycemic reaction. Children must be treated at home and the parents instructed to give carbohydrates by the mouth after each insulin injection to avert the hypoglycemic syndrome.—*Klinische Wochenschrift,* January 8, 1927.

Increasing Weight with Insulin.—Professor E. Frank speaks of the astonishment with which one sees the emaciated, cachectic subject with diabetes transformed into an individual with the bloom of health as the signs of senescence give way to a veritable rejuvenescence. Naturally insulin was soon tested on nondiabetics with the same evidences of cachexia—first in primary constitutional emaciation and cases not due to severe organic disease, and sometimes with remarkable gain in weight. The fattening type of diet with 20 to 40 daily units of insulin constitutes the treatment, the drug of course being given by injection only. In this type of cure where no insufficiency of the pancreas is apparent there must be some specific mechanism involved and this probably includes the power of insulin to cause the water content of the tissues to be retained. In more pathological types of emaciation findings of reporters differ. The first thought in this connection is the value of insulin in tuberculosis. In the patient with high fever there is no reason to believe that the consumptive will benefit from it; but in the chronic afebrile, or slightly febrile patient, it might be well worth testing, although it is possible that the foreign protein in the injection would determine a focal reaction—perhaps an hemoptysis. In cancerous cachexia there is little reason to anticipate any benefit, but the thyreotoxicoses seem well adapted to insulin and good results have been reported.—*Deutsche medizinische Wochenschrift,* February 4, 1927.

The Treatment of Typhoid and Paratyphoid Fevers with Staphylococcic Vaccines.—Valdemar Bie (*Acta Medica Scandinavica,* Dec. 10, 1926, lxv, 1-2) agrees with those who hold that the vaccine treatment of typhoid and paratyphoid fevers is not specific, but corresponds to other forms of nonspecific protein therapy. For four years he has been employing vaccine treatment for these diseases; during the first two years of this period he used typhoid vaccines, but for the past two years he employed exclusively staphylococcic vaccines which gave results equally as satisfactory as did the specific vaccines. The staphylococcic vaccines are preferable because the treatment can be begun on the basis of the clinical diagnosis alone without reference to the Widal reaction. Since the intravenous injection of adequate quantities of bacillary proteins gives rise to chills and a critical fall of temperature, often accompanied by a dangerous collapse, Bie tried intramuscular injections, which produce a temperature reaction of only several tenths of a degree, Centigrade, and following which collapse has never been observed. The local reaction at the site of the injection is insignificant. The staphylococcus vaccine contains 1000 million bacilli (killed with carbolic acid) to the cubic centimeter. The intramuscular injections are given on five consecutive days, beginning with a small dose of 100 million, and continuing on successive days with 200, 400, 700, and on the fifth day 1000 million bacilli. The dosage for children is the same as that for adults. It is important to start the treatment with a small dose; the temperature often begins to fall after the injection of 0.1 c.c. (100 million). Usually defervescence occurred about the eighth day after commencing the treatment and ushered in the convalescent stage, thus showing that the staphylococcic vaccines are curative as well as antipyretic. In 39 of a series of 51 cases of paratyphoid fever, the temperature began to fall during or immediately after the treatment; in 4 cases the result was doubtful, defervescence taking place slowly, while in 8 cases the treatment was ineffective. In 35 of a series of 54 cases of typhoid fever the results were good, in 3 cases doubtful, while in 9 cases the vaccines were ineffective. In this series there were 7 deaths. Bie concludes that the use of staphylococcic vaccines reduces the mortality and shortens the course of typhoid and paratyphoid fevers.

Chills in Acute Appendicitis.—Ralph Colp presents an analysis of 2,841 cases of acute appendicitis treated in Mt. Sinai Hospital, New York City, with reference to the significance of chills, concerning which decidedly contradictory opinions are held. In this series 192 patients gave a history of having had a real shaking chill and 206 complained of chilly sensations, *i. e.*, in about 6.8 per cent of the entire series chill was a clinical symptom before operation. The figures indicate that the degree and extent of the gross pathology bear little relation to the occurrence of chills within the first forty-eight hours, so that, as a rule, this symptom is not an index of the severity of the disease. Seventy per cent of all rigors occurred within the first twenty-four hours. A primary chill on the third day, or even later in the course of the disease, seemed to be associated with abscess formation, and the delayed occurrence occasionally heralded the onset of a general peritonitis. The mortality of patients with a single chill was no higher than that for all cases without chill. When a chill is present, especially in gangrenous appendicitis, the possibility of pylephlebitis should be constantly borne in mind and the appendicular mesentery should be carefully investigated for evidence of suppurative pylephlebitis. When chills are multiple a routine ligation or resection of the ileocolic vein should be done, preferably before the actual appendicectomy. Postoperative chills are invariably due to suppurative pylephlebitis.—*Annals of Surgery,* February, 1927, vol. lxxxv, No. 2.

Parasitic Appendicitis.—C. P. Caplesco of Bucharest has devoted many years to the study of the so-called parasitic appendicitis. By parasite he refers to such denizens of the intestine as the ascaris, oxyuris, and trichocephalus. According to Professor Guiard there were on record up to 1910 no less than 200 cases of appendicitis due to these three parasites. Since that year many more have been reported. Other figures in abundance show the great frequency of infestation by these worms in certain groups of men. There are also numerous figures which show the coexistence of parasitism and appendicitis although without establishing any causal relationship. Since 1913 the author has operated on 1,556 cases of appendicitis and of this total he regards 105 cases as of possible parasitic origin, or about 7 per cent. The author is himself a parasitologist and is able to make his own laboratory studies. In his 105 cases he found the oxyuris in the appendix in 94. He concedes, however, that the relation of cause and effect is not straightway apparent. It may be that the parasite enters an appendix already doomed to infection. Moreover, histological studies originally begun by the late Professor Babès and continued by the author, fail to show that the parasite is able to cause a special type of lesion in the appendix. Nor has the author ever found the ova of the parasites in the appendix. The symptomatology is the same, contrary to what is sometimes taught. Finally appendicitis is rare in countries where the worms most abound.—*Bulletin de l'Académic de Médecine,* Jan. 4, 1927.

Alkalinity, Acidity, and Pain.—W. v. Gaza and B. Brandi have already published one article on this subject in which they pointed out a connection between the hydrogen ion concentration and the pain of inflammation. The latter seems to be attended by a local acidosis, and the injection of alkalies locally by neutralizing this acidosis may be the means of alleviating the pain. They made experiments not only with processes like furuncles and phlegmons where there is great local tension, but also with other painful conditions, some of which are noninflammatory. These tests showed that it was possible in an entire series of infectious-inflammatory affections to remove the pain completely and permanently by the injection of certain alkaline solutions. Other relief measures are not contraindicated; for example a tension abscess is punctured and evacuated. To quote a case in point, a journeyman mechanic entered the clinic with a furuncular abscess of the buttocks which infiltrated the entire seat of the affected side. The affection was not only painful in itself but doubly so on the attempt to sit down. The patient asked for an incision but instead an attempt at relief by puncture gave exit to but little pus which contained the staphylococcus. A solution of phosphates of 9.1 hydrogen ion concentration was now injected and in a few moments the patient was rejoiced to note that he was not only free from pain but could seat himself dead weight with the same freedom from suffering. There was no return of the pain and the abscess healed, leaving a sinus. The solution was composed of secondary sodium phosphate with compensatory addition of sodium chloride. To make the solution, take one liter of water add 6 grams (6.49 to be exact) of secondary sodium phosphate and 6 grams (6.44) of common salt. This mixture gives the desired concentration. On the other hand, if injections of solutions which give an acid reaction are injected the pain is increased. If a merely alkaline solution is injected without regard to concentration the action is much slower.—*Klinische Wochenschrift,* January 1, 1927.

Salvarsan Resistant Spirochetes.—E. Hoffmann and G. Aemuzzi relate the case of a patient who, after his quite recent secondary syphilis had been treated with bismuth and neosalvarsan, developed an outbreak of moist papules of the genitals and throat. The spirochetes found in these lesions seemed unusually active and resisted a new course of sodium salvarsan and a mercurial inunction cure. In fact these organisms did not yield until after a further intensive bismuth-salvarsan treatment, in which neosalvarsan was used in very large doses, and which was followed by a Zittmann sweating cure. After all of these measures the patient finally showed a negative seroreaction in the blood and spinal fluid. A strain of these spirochetes which may have been weakened somewhat by the preceding treatment (taken after the sodium salvarsan treatment) was introduced under the scrotal skin of 3 rabbits. Inoculation chancres developed promptly and the spirochetes obtained from them showed the same vigorous activity. However the rabbit syphilis yielded very readily to the usual treatment, which fact seemed to show that it was not the virulence of the spirochete so much as the lowered resistance of the patient which required study. The authors on this evidence totally reject the theory of special virulent strains of this organism to account for peculiarities in the course of syphilis in man. The combination of bismuth and salvarsan has in general given the authors the best results. Thus the disease has been freed from the contagious relapses which do so much to keep it active in the community, the case detailed being a notable exception. They also trust this plan of treatment properly spaced to clean the spinal fluid and antagonize the later development of neuro- and metasyphilis.—*Deutsche medizinische Wochenschrift,* January 7, 1927.

Besredka's Local Immunity in Cataract Operations.—R. Comenge suggests immunization of cataract patients before operation after Besredka's method of local vaccination. At the present time in ophthalmology an autovaccine is prepared from the bacteria found in the tears of patients with infection of the conjunctival sac, and this is injected beneath the integument, although apparently not in connection with surgical intervention. In the case of the Besredka method the antivirus might be instilled into the conjunctival sac one day before a cataract operation. The vaccine itself is entirely nonirritating and can be obtained as a specific against any kind of pathogenic microorganism. If more than one such is found in the conjunctiva a mixed vaccine should be employed. The chief danger in cataract operation is a panophthalmitis, in which the patient, instead of recovering his vision, loses his eye, and the author urges local immunization to prevent this catastrophe.—*El Siglo Médico,* January 15, 1927.

Failure of Tetanus Antitoxin in Animal Experiment.—Professor A. Wolff-Eisner refers to the unknown factor in serotherapy which sometimes asserts itself, especially in connection with tetanus. This may explain why tetanus antitoxin has failed in man as a curative measure, however valuable it may be as a prophylactic. In testing small laboratory animals it has been the custom to give a control injection of serum free from antitoxin, and it is commonly believed that in these animals injections containing antitoxin are very virulent. The author, however, in making some tests on mice and guinea pigs found that a highly potent serum was no longer active. Since evidently there was no question of defective preparations or technique it is evident that some unknown law is involved through which tetanus antitoxin does not act absolutely. This unknown factor cannot be in the preparations but must lie in the tissues of the test animals. Thus different species of the same kind of animal show differences in their behavior with tetanus antitoxin. The animal which behaves in a refractory or negative manner toward the antitoxin will also be found to show peculiarities in fixation of the toxin of tetanus. The power of fixation of the toxin is feeble and the response to the antitoxin is negative. The superstructure of twenty years which has been built up around laboratory experiments and standardizing tests on such small creatures as mice, frogs, fowls, rabbits, etc., may prove to be only a cobweb unless we can determine the conditions which permit these negative results. We must also extend the study to the larger animals.—*Deutsche medizinische Wochenschrift,* January 14, 1927.

The Treatment of Tetanus.—Samuel Oscar Freedlander (*Annals of Surgery,* March, 1927, lxxxv, 3) records a series of 25 consecutive cases of tetanus treated uniformly and analyzed in order to determine a basis for conclusions as to the therapeutic value of tetanus antitoxin. The local treatment consisted in making all parts of the wound accessible to the air by the removal of devitalized tissue. A small amount of antitoxin was usually injected around the wound. Within the first twenty-four hours a total of 50,000 to 150,000 units of antitoxin was given intravenously in two or three injections. This was continued well into convalescence, sometimes as long as twelve to fifteen days, depending upon the muscular rigidity. Morphine was given hypodermically every six hours and chloretone every six hours by rectum. Food and fluids were urged. The aim of the treatment should be to maintain a high concentration of antitoxin in the blood in order to neutralize the toxin already there and also that given off from the focus of infection. The gross mortality rate in this series was 36 per cent. If six cases which terminated fatally before sufficient antitoxin could be administered are excluded, the mortality rate would be 12 per cent. The relatively low mortality rate in this series strengthens the impression that tetanus antitoxin given in large doses intravenously has some therapeutic value. From the observations made on the later cases in this series it seems doubtful whether it is necessary to continue the antitoxin longer than six or seven days.

LEGAL

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THE POWER OF THE FEDERAL GOVERNMENT TO REGULATE THE PRACTICE OF MEDICINE

In our editorial of January first entitled "The Supreme Court of the United States Limits the Practice of Medicine," we discussed at length the opinion of that court in the case of Lambert v. Yellowley. We expressed there strong approval of the minority opinion and disapprobation of the opinion of the court. There, as will be recalled, it was held that Congress could limit a physician in prescribing more than a fixed amount of vinous or spirituous liquors for his patient. The decision of the court, of course, was based upon the Eighteenth Amendment to the Constitution which in itself marks a radical departure from the accepted functions of the Federal Government. Fortunately, however, the decision in the Lambert case is at least limited to a prescription of beverages prohibited by the Eighteenth Amendment. The decision does not otherwise limit or constitute an authority for a restriction upon the practice of medicine.

In rendering an opinion not long ago to your Executive Committee concerning the Harrison Narcotic Act, it was refreshing to reread the case of Linder vs. The United States, decided by the Supreme Court in October, 1924. In that case Charles O. Linder, a duly licensed physician of the state of Washington was indicted by the Federal grand jury in the Eastern district of his state for an alleged violation of Section 2 of the Harrison Narcotic Act. The indictment charged that he had knowingly and unlawfully sold to one Ida Casey one tablet of morphine and a compound, manufacture and derivative of coca leaves and that he had done this not in pursuance of any written order of Ida Casey on a form issued for that purpose by the Commission of Internal Revenue of the United States. The indictment further charged that Ida Casey was a person addicted to the habitual use of morphine and cocaine and known by the defendant to be so addicted. Further, it was alleged that the patient "did not require the administration of either morphine or cocaine by reason of any disease other than such addiction." It was charged also that none of the drugs dispensed were administered or intended to be administered by the doctor to his patient or by any nurse or other person acting under the instructions of the doctor, and that all of the drugs were to be in the possession of the patient with the intention on the part of the doctor that the patient would use the same by self-administration in divided doses over a period of time, and that the amount of each of the drugs dispensed was "more than sufficient or necessary to satisfy the cravings of Ida Casey therefor if consumed by her all at one time."

In the trial court the defendant was convicted. His conviction was affirmed by the Circuit Court of Appeals, from which court by a writ of certiorari appeal was taken to the United States Supreme Court. By an unanimous decision the conviction of the lower court was reversed. The opinion — a masterly one — in which all of the judges concurred, was written by Mr. Justice James McReynolds.

In this era of expansion of Federal power, when the long arm of Washington, through the medium of the Eighteenth Amendment, the income tax amendment and the instrumentalities of countless scores of bureaus and Federal officials reaches out into the states to control the private citizen in so many of his activities, it is indeed refreshing to read the opinion in the Linder case, taking from it a renewed confidence that there are some rights of the ordinary citizen which are beyond the supervision and control of Federal power.

The Harrison Narcotic Act became a Federal law on December 17, 1914. Section 2 provides:

> "That it shall be unlawful for any person to sell, barter, exchange, or give away any of the aforesaid drugs except in pursuance of a written order of the person to whom such article is sold, bartered, exchanged, or given, on a form to be issued in blank for that purpose by the Commissioner of Internal Revenue."

That section further provides:

> "Nothing contained in this section shall apply * * * To the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this Act in the course of his professional practice only: Provided, That such physician, dentist, or veterinary surgeon shall keep a record of all such drugs dispensed or distributed, showing the amount dispensed or distributed, the date, and the name and address of the patient to whom such drugs are dispensed or distributed, except such as may be dispensed or distributed to a patient upon

whom such physician, dentist, or veterinary surgeon shall personally attend; and such record shall be kept for a period of two years from the date of dispensing or distributing such drugs, subject to inspection, as provided in this Act."

Section 8 of the Act declares:

> "That it shall be unlawful for any person not registered under the provision of this Act, and who has not paid the special tax provided for by this Act, to have in his possession or under his control any of the aforesaid drugs; and such possession or control shall be presumptive evidence of a violation of this section, and also of a violation of the provisions of Section 1 of this Act: Provided, That this section shall not apply to any employee of a registered person, or to a nurse under the supervision of a physician, dentist or veterinary surgeon registered under this Act, having such possession or control by virtue of his employment or occupation and not on his own account; *or to the possession of any of the aforesaid drugs which has or have been prescribed in good faith by a physician, dentist, or veterinary surgeon registered under this Act.*"

Section 1 of this Act was amended on February 24, 1919, so as to contain the following provision:

> "It shall be unlawful for any person to purchase, sell, dispense, or distribute any of the aforesaid drugs except in the original stamped package or from the original stamped package; and the absence of appropriate taxpaid stamps from any of the aforesaid drugs shall be prima facie evidence of a violation of this section by the person in whose possession same may be found; and the possession of any original stamped package containing any of the aforesaid drugs by any person who has not registered and paid special taxes as required by this section shall be prima facie evidence of liability to such special tax: Provided, That the provisions of this paragraph shall not apply * * * to the dispensing or administration, or giving away of any of the aforesaid drugs to a patient *by a registered physician, dentist, veterinary surgeon, or other practitioner in the course of his professional practice, and where said drugs are dispensed or administered to the patient for legitimate medical purposes*, and the record kept as required by this Act of the drugs so dispensed, administered, distributed, or given away."

Section 1 of the Act provides further that the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall make all needful rules and regulations for carrying the provisions of this Act into effect. In supposed furtherance of this power the Internal Revenue Department issued regulations (No. 35) which, among other things, provide:

> "Art. 117.—A prescription, in order to be effective in legalizing the possession of unstamped narcotic drugs and eliminating the necessity for use of order forms, must be issued for legitimate medical purposes. An order purporting to be a prescription issued to an *addict* or habitual user of narcotics, not in the course of professional treatment in an attempted cure of the habit, but for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use *is not a prescription within the meaning and intent of the Act;* and the persons filling and receiving drugs under such an order, as well as the person issuing it, will be regard as guilty of violation of the law."

> "Art. 126.—Practitioners are permitted to dispense narcotic drugs to bona fide patients pursuant to the legitimate practice of their professions without prescriptions or order forms. * * * However, a record of drugs so dispensed must be kept except when the practitioner is in personal attendance upon the patient. A practitioner is not regarded as in personal attendance upon a patient within the intent of the statute unless he is in personal attendance upon such patient away from his office."

It should be noted that the statute itself makes no reference to "addicts"; this word is found in the regulations only. These regulations are valid only if in conformity with the statute. The statute, in the language of the Supreme Court, "says nothing of 'addicts' and does not undertake to prescribe methods for their medical treatment. They are diseased and proper subjects for such treatment, and we cannot possibly conclude that a physician acted improperly or unwisely or for other than medical purposes solely because he has dispensed to one of them, in the ordinary course and in good faith, four small tablets of morphine or cocaine for relief of conditions incident to addiction."

The question before the court was whether the dispensing by the indicted physician of four small tablets of morphine or cocaine was a violation of the Harrison Narcotic Act. The court squarely held that it was not. A sharp distinction, however, was drawn between a case where a doctor administers a narcotic in good faith in pursuance of a bona fide medical practice or where the same is dispensed under the mere pretense that it is in furtherance of such practice, but in fact is not such. In the former case the dispensing is lawful, in the latter it is unlawful.

"What constitutes bona de medical practice," said the court, "must be determined upon consideration of evidence and attending circumstances. Mere pretense of such practice, of course, cannot legalize forbidden sales, or otherwise nullify valid provisions of the statute, or defeat such regulations as may be fairly appropriate its enforcement within the proper limitations of a revenue measure." Of course, prescriptions fraudulently issued by a physician merely to be given away or sold to others not in the practice of the physician are condemned.

Referring to the Jin Fuey Moy case, in which a doctor and druggist conspired to sell opiates and in which the prescriptions were not issued in the course of professional practice and where the doctor had become a party to the prohibited sales, the court said:

"Manifestly the phrases 'to a patient' and 'in the course of his professional practice only' are intended to confine the immunity of a registered physician, in dispensing the narcotic drugs mentioned in the Act, strictly within the appropriate bounds of a physician's professional practice, and not to extend it to include a sale to a dealer or a distribution intended to cater to the appetite or satisfy the craving of one addicted to the use of the drug. A 'prescription' issued for either of the latter purposes protects neither the physician who issues it nor the dealer who knowingly accepts and fills it."

Turning again to the indictment before the court, Mr. Justice McReynolds declared that:

"It does not question the doctor's good faith nor the wisdom or propriety of his action according to medical standards. It does not allege that he dispensed the drugs otherwise than to a patient in the course of his professional practice or for other than medical purposes. The facts disclosed indicate no conscious design to violate the law, no cause to suspect that the recipient intended to sell or otherwise dispose of the drugs, and no real probability that she would not consume them."

Thus, it was held that no crime was set forth in the indictment. For, said the court, "the declared object of the Narcotic Law is to provide revenue, and this court has held that whatever additional moral end it may have in view must 'be reached only through a revenue measure and within the limits of a revenue measure.' * * * Congress cannot, under the pretext of executing delegated power, pass laws for the accomplishment of objects not entrusted to the Federal Government. And we accept as established doctrine that any provision of an act of Congress ostensibly enacted under power granted by the Constitution, not naturally and reasonably adapted to the effective exercise of such power but solely to the achievement of something plainly within power reserved to the states, is invalid and cannot be enforced."

The theory of the prosecution in the Linder case necessarily implied the existence of Federal power to control the practice of medicine. This the court decisely and in unequivocal language repudiated and declared:

"Obviously, direct control of medical practice in the states is beyond the power of the Federal Government. Incidental regulation of such practice by Congress through a taxing act cannot extend to matters plainly inappropriate and unnecessary to reasonable enforcement of a revenue measure. The enactment under consideration levies a tax, upheld by this court, upon every person who imports, manufactures, produces, compounds, sells, deals in, dispenses or gives away opium or coca leaves or derivatives therefrom, and may regulate medical practice in the states *only so far as reasonably appropriate for or merely incidental to its enforcement.*"

To those of us who have watched with growing concern the increasing tendency of the Federal Government to reach out into the domain of the states and to gather to itself powers undreamed of by the Founders, this language of the Supreme Court is refreshing evidence that our highest tribunal is ever ready to defend the states from an unlawful encroachment upon their reserved powers by the Federal Congress. The rights of the states are guaranteed by the Tenth Amendment to the United States Constitution, which declares:

> "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

The Supreme Court in the Linder case has demonstrated its refusal to permit the reserved powers of the states to be broken down.

Thus, the decision in the Linder case is in effect that a physician who in good faith and in accordance with fair medical standards administers narcotics in moderate amounts to a bona fide patient, is performing an act which the Federal Government has no power to prevent. The mere fact that a doctor's patients may have been drug addicts does not render the doctor's act unlawful "solely because he has dispensed to one of them in the ordinary course and in good faith four small tablets of morphine or cocaine for relief of conditions incident to addiction." And the court expressly declared that there was no authority "for holding that a physician, who acts bona fide and according to fair medical standards, may never give an addict moderate amounts of drugs for self-administration in order to relieve conditions incident to addiction. Enforcement of the tax demands no such drastic rule, and if the

Act had such scope it would certainly encounter grave constitutional difficulties." No doctor, however, who administers narcotics other than in accordance with a fair medical standard or to bona fide patients in pursuance of a bona fide medical practice can claim the Linder case as his protection. The mere fact that a doctor issues a prescription is no defense if it was not a bona fide prescription, issued in the course of bona fide practice. For, said the court, the purpose of the statute is "to confine the distribution of these drugs to the regular and lawful course of professional practice and that not everything called a prescription is necessarily such."

The writer expresses anew the regret which he voiced in his editorial of January first that the dissenting opinion in the Lambert case was not the opinion of the court. In that dissenting opinion Mr. Justice Sutherland referred to the Linder case as follows:

"It is important also to bear in mind that 'direct control of medical practice in the states is beyond the power of the Federal Government.' Linder v. United States, 268 U. S. 5, 18. Congress, therefore, cannot directly restrict the professional judgment of the physicians or interfere with its free exercise in the treatment of diseases. Whatever power exists in that respect belongs to the states exclusively."

The fact, however, that the majority of the court in the Lambert case refused to follow its previous decision in "Linder vs. United States" is in no wise a reflection upon or repudiation of that authority. The Lambert case was based solely upon the Eighteenth Amendment and all that is there said must be confined to that specific section of the Constitution. Despite the fact that the Eighteenth Amendment confines its prohibition to the "manufacture, sale and transportation of intoxicating liquors *for beverage purposes*" and that the facts in that case clearly showed that the liquors sought to be dispensed were not for "beverage purposes," but for the treatment of disease, the court nevertheless sustained Congress in its regulation of the practice of medicine in so far as the prescribing of intoxicating liquors is concerned. We think the majority opinion in the Lambert case was wrong and the minority was right, but of course, the majority opinion is now the law. The Linder case, however, is also the law and it is gratifying and encouraging to learn and to appreciate that the practice of medicine (except as to the prescribing of intoxicating liquors) cannot be regulated and controlled in Washington except only in so far as such regulation is necessarily incident to the enforcement of a revenue measure.

CLAIMED BURN IN BAKING OF POTT'S FRACTURE

A patient was referred by an insurance company to the defendant for examination to determine the extent of the injury and disability of the patient. The patient gave a history of having fallen upon the sidewalk on December 6th and sustained a Pott's fracture of the left foot. At the time of the injury he was removed to the hospital where he remained two weeks, that he had been under the care of another physician. The defendant's examination of the patient was made the following March 15th and baking and massage treatment advised. The patient was given a baking treatment in a Biers Hyporemia by super-heated hot air. Advice was also given to the patient by the physician as to active and passive motion. The baker used by the physician was a standard baking apparatus electrically operated. The foot was wrapped in flannel and suspended in three blankets and an asbestos sheet, making about two inches in thickness. The foot and leg was then placed in the baker and the heat turned on to the required temperature. The heating of the apparatus is by means of wire coils in the underpart of the baker; attached to the baker is a thermometer and the time of treatment is regulated by a clock. The foot and leg up to midcalf was baked for eight minutes at a temperature of 180°, the physician being present during the entire treatment. The patient was prepared and was placed in the apparatus by the physician's nurse. Upon completion of the baking, the ankle and foot of the patient were given a hand massage, cold cream being used. On examination made immediately after the completion of the treatment the physician saw that there was no special reaction, the hypremia was mottled over the foot, particularly in the neighborhood of the internal malleolus and arch of the foot, which was not extensive and there was no blister or abrasion of the skin on any part of the foot or calf. This was the only treatment rendered by the physician to the patient.

Thereafter an action of malpractice was instituted charging that in the administration of the baking treatment the defendant physician and his nurse were negligent and careless causing the foot and leg of the plaintiff to be burned, so that it became infected and swollen, disabled him for a long period of time and caused him to procure treatment from other physicians.

When the case finally came on for trial, no one appearing in behalf of the plaintiff, the action was dismissed for failure of the plaintiff to prosecute the same, and a judgment of dismissal was entered in favor of the defendant.

NEWS NOTES

PROGRAM OF THE ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK IN NIAGARA FALLS, MAY 9-12, 1927

All meetings will be held by Eastern Standard Time

REGISTRATION

Registration of members will be located in the Lobby of the Prospect House, Jefferson Avenue and Second Street, Tuesday, May 10th, Wednesday, May 11th, and Thursday, May 12th, from 8 A. M. to 6 P. M.

Delegates' registration in the Niagara Hotel. Mezzanine Floor at entrance to Ball Room, Monday afternoon and evening, May 9th, and Tuesday morning, May 10th.

HOUSE OF DELEGATES

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York, will be held on Monday, May 9, 1927, at 2 P. M., in the Ball Room, Niagara Hotel, Niagara Falls.

E. ELIOT HARRIS, M.D., *Speaker.*
DANIEL S. DOUGHERTY, M.D., *Secretary.*

DELEGATES' DINNER

Delegates' dinner will be held at the Niagara Hotel, Monday evening, May 9th, after the adjournment of the afternoon session of the House of Delegates. Tickets for the dinner are $2.50.

COMMERCIAL EXHIBITS

Prospect House

The Exhibits will be open from 1 P. M. to 6.30 P. M. Monday. 8.30 A. M. to 6.30 P. M. Tuesday, Wednesday and Thursday.

ANNUAL BANQUET

The Annual Banquet will be held in the ballroom of the Niagara Hotel on Tuesday evening, May 10th. Mr. William Ganson Rose of Cleveland will be the speaker. After the dinner, there will be dancing. Music by the famous Colgate Isle of Blues Orchestra. Tickets, $6.00. Members are urged to bring their wives and to make up tables in advance.

Tickets may be secured and arrangements for special parties may be made by applying to the Medical Society of the State of New York, 2 East 103rd Street, New York City, or to Dr. W. Roger Scott, Chairman of Ball Committee, 598 Pine Avenue, Niagara Falls.

ANNUAL MEETING

The 121st regular annual meeting of the Medical Society of the State of New York will be held on Wednesday, May 11, 1927, at 8.15 P. M. in the Auditorium, Chamber of Commerce Building, Niagara Falls, New York.

GEORGE M. FISHER, M.D., *President.*
DANIEL S. DOUGHERTY, M.D., *Secretary.*

PROGRAM No. 1

Calling the Society to order by the President, George M. Fisher, M.D.

Invocation by Mr. Robert B. Day, Niagara Falls.

Address of Welcome by the Chairman of the Committee on Arrangements, Frederick J. Schnell, M.D.

Address of Welcome by the Hon. William Laughlin, Mayor of Niagara Falls.

Reading of the minutes of the 120th Annual Meeting by the Secretary, Daniel S. Dougherty, M.D.

President's Address, George M. Fisher, M.D.—President of the Medical Society of the State of New York.

Address, Louis I. Harris, M.D.—Health Commissioner of the City of New York.

SECTION MEETINGS

SECTION ON MEDICINE

Chairman..Wardner D. Ayer, M.D., Syracuse
Secretary..Henry R. Geyelin, M.D., New York City

Place of Meeting—Niagara Hotel, Ball Room

PROGRAM No. 2

Tuesday, May 10th, 2.30 P. M.

1. "The Diagnosis of Pernicious Anaemia," John A. Lichty, M.D., Clifton Springs.

Discussion opened by Edward R. Evans, M.D., Utica.

2. "Treatment of Pernicious Anaemia by a Diet Rich in Liver," George R. Minot, M.D., William P. Murphy, M.D., Boston, Mass. (by invitation).

Discussion opened by Nelson G. Russell, M.D., Buffalo.

3. "Recent Advances in the Treatment of Pulmonary Tuberculosis," Edward N. Packard, M.D., Saranac Lake.

Discussion opened by H. Burton Doust, M.D., Syracuse.

4. "The Differential Diagnosis of Brain Tumors," with Illustrative Cases, Charles E. Locke, Jr., M.D., Cleveland, Ohio (by invitation).

Discussion opened by David C. Wilson, M.D., Clifton Springs.

PROGRAM No. 3

Wednesday, May 11th, 9.30 A. M.

1. "Bacteriology of Rheumatic Fever," Konrad E. Birkhaug, M.D., Rochester (by invitation).

Discussion opened by William S. McCann, M.D., and Albert D. Kaiser, M.D., Rochester.

2. "Some Practical Points in the Treatment of Heart Disorders," Samuel A. Levine, M.D., Boston, Mass. (by invitation).

Discussion opened by Charles D. Post, M.D., Syracuse.

3. "The Present Status of Treatment for Diabetes," Frederick M. Allen, M.D., New York City (by invitation).

Discussion opened by Frederick W. W. Hipwell, Toronto, Canada (by invitation) and Charles B. F. Gibbs, M.D., Rochester.

PROGRAM No. 4

Wednesday, May 11th, 2.30 P. M.

Joint Session with Section on Surgery

1. "Hyperthyroidism and Its Relation to Benign Tumors of the Thyroid Gland—Pathological Changes and Treatment," William F. Rienhoff, Goitre," Henry S. Plummer, M.D., Rochester, Minn. (by invitation).

3. "The Use and Abuse of Iodine in the Treatment of Toxic Goitre," Emil Goetsch, M.D., Brooklyn.

4. "Diagnosis and Treatment of Thyroidism Complicated by Congestive Heart Failure," Frank H. Lahey, M.D., Boston, Mass. (by invitation).

Discussion opened by Clayton W. Greene, M.D., Buffalo, and Frederick S. Wetherell, M.D., Syracuse.

SECTION ON SURGERY

Chairman..George E. Beilby, M.D., Albany
Secretary..Albert G. Swift, M.D., Syracuse

Place of Meeting—Knights of Columbus Home, Room A

PROGRAM No. 5

Tuesday, May 10th, 2.30 P. M.

1. "The Actual Achievement of Median Perineal Prostatectomy. An Analysis of Twenty-five Consecutive Cases, Illustrating the Author's Method," Parker Syms, M.D., New York City.

Discussion opened by James N. Vander Veer, M.D., Albany.

2. "Important Considerations in the Diagnosis of Urological Conditions," Joseph D. Olin, M.D., Watertown.

3. "Difficult Surgical Problems as Seen in Urological Practice," David M. Davis, M.D., Rochester.

4. "Bladder Tumors. A Study of Six Hundred Cases," Winfield W. Scott, M.D., and Robert W. McKay, M.D., Baltimore, Md. (by invitation).

Discussion opened by Oswald S. Lowsley, M.D., and Victor C. Pedersen, M.D., New York City.

PROGRAM No. 6

Wednesday, May 11th, 9.30 A. M.

1. "Inadequate Skin Preparation as a Cause of Postoperative Wound Infection," Henry B. Sutton, M.D., Ithaca.

2. "Pilonidal Sinus," Hyzer W. Jones, M.D., Utica.

3. "Cooperation Between Internist and Surgeon in Biliary Passage Conditions," John A. Lichty, M.D., and Charles W. Webb, M.D., Clifton Springs.

4. "Acute Osteomyelitis," Clarence L. Starr, M.D., Toronto, Canada (by invitation).

5. "An Experimental Study of Certain Factors Influencing Osteogenesis," John J. Morton, Jr.,

M.D., Rochester, and Samuel J. Stabins, M.D., Rochester (by invitation).

Discussion opened by William W. Plummer, M.D., Buffalo, and Donald E. McKenna, M.D., Brooklyn.

Wednesday, May 11, 2.30 P. M.

Joint session with Section on Medicine. Place of Meeting, Niagara Hotel, Ball Room. Program No. 3 of Section on Medicine.

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman..Hugh C. McDowell, M.D., Buffalo
Secretary..Nathan P. Sears, M.D., Syracuse

Place of Meeting, St. Peter's Church, Room C.

PROGRAM No. 7

Tuesday, May 10th, 2.30 P. M.

1. "Uterine Bleeding—A Clinical and Pathological Interpretation," Meyer R. Robinson, M.D., New York City.

Discussion opened by Earl P. Lothrop, M.D., Buffalo, and Bernard F. Schreiner, M.D., Buffalo.

2. "Unusual Tumors of New-Born," Benjamin Roman, M.D., Buffalo.

Discussion opened by Herbert U. Williams, M.D., Buffalo, and William F. Jacobs, M.D., Buffalo.

3. "Certain Pathological Conditions of the Cervix Uteri Tending toward Cancer," James N. West, M.D., New York City.

Discussion opened by George R. Critchlow, M.D., Buffalo, and Burton T. Simpson, M.D., Buffalo.

4. "Sloane Maternity," William E. Caldwell, M.D., New York City.

PROGRAM No. 8

Wednesday, May 11th, 9.30 A. M.

1. "Urinary Disturbances in Women, Causes and Treatment—A Study of 500 Consecutive Cases," Frederick T. Lau, M.D., New York City.

Discussion opened by Oscar J. Oberkircher, M.D., Buffalo, and Dr. Watson.

2. "Pelvic Sepsis—A Plea for Delayed Operative Intervention," James B. Ricci, M.D., New York City.

Discussion opened by Francis M. O'Gorman, M.D., Buffalo.

3. "Cesarian Section," William T. Getman, M.D., Buffalo.

Discussion opened by James K. Quigley, M.D., Rochester.

4. "Gwathmey Anesthesia—Report 100 Cases," William H. McKay, M.D., Buffalo.

PROGRAM No. 9

Wednesday, May 11th, 2.30 P. M.

1. "The Incompletely Dilated Cervex," Paul T. Harper, M.D., Albany.

Discussion opened by Irving W. Potter, M.D., Buffalo.

2. "Placenta Eccreta," Delbert L. Jackson, M.D., Boston (by invitation).

Discussion opened by Francis C. Goldsborough, M.D., Buffalo.

3. "End Results in Procidentia Operation," Frank A. Pemberton, M.D., Boston (by invitation).

Discussion opened by James E. King, M.D., Buffalo.

SECTION ON PEDIATRICS

Chairman..Arthur W. Benson, M.D., Troy
Secretary..John Aikman, M.D., Rochester

Place of Meeting, Knights of Columbus, Room B

PROGRAM No. 10

Tuesday, May 10th, 2.30 P. M.

1. "Fatigue in Children," George R. Irving, M.D., New York City.

Discussion opened by Frank vander Bogert, M.D., Schenectady.

2. "The Nervous Child," Frank H. Richardson, M.D., Brooklyn.

Discussion opened by Frankwood E. Williams, M.D., New York City.

3. "Some Prognostic Values in Measurement of Intelligence," Ira S. Wile, M.D., New York City.

Discussion opened by —— —— —— —— —

4. "Indications and Results of Blood Transfusion with Motion Pictures of Author's

Technic," Lester J. Unger, M.D., New York City.

Discussion opened by Roger H. Dennett, M.D., New York City.

5. "The Epidemiology of Hemolytic Streptococcus Infection," Franklin H. Stevens, M.D., New York City (by invitation).

Discussion opened by William H. Park, M.D., New York City.

PROGRAM No. 11

Wednesday, May 11th, 9.30 A. M.

1. "Radium Treatment of Angiomas," with lantern slides, G. Allen Robinson, M.D., New York City.

Discussion opened by Marshall C. Pease, M.D., New York City, and Bernard F. Schreiner, M.D., Buffalo.

2. "Obscure Infection as a Cause of Nutritional Disturbances in Infants," Samuel W. Clausen, M.D., Rochester (by invitation).

Discussion opened by Edwin S. Ingersoll, M.D., Rochester.

3. "Tuberculosis of the Abdominal Lymph Nodes in Early Life," John L. Morse, M.D., Boston, Mass. (by invitation).

Discussion opened by Horace LoGrasso, M.D., Perrysburg.

4. "The Possible Relationship Between Convulsions in Early Life and Epilepsy," William T. Shanahan, M.D., Sonyea.

Discussion opened by DeWitt H. Sherman, M.D., Buffalo.

PROGRAM No. 12

Wednesday, May 11th, 2.30 P. M.

1. "Cervical Adenitis," R. Franklin Carter, M.D., New York City.

Discussion opened by Henry L. K. Shaw, M.D., Albany.

2. "Neurosurgery in the New Born and Children," William Sharpe, M.D., New York City.

Discussion opened by Henry W. Williams, M.D., Rochester.

3. "The Heart in Childhood," Samuel C. Smith, M.D., Philadelphia, Pa. (by invitation).

Discussion opened by John Aikman, M.D., Rochester.

4. "Heliotherapy," with lantern slides, Horace LoGrasso, M.D., Perrysburg.

Discussion opened by Carl G. Leo-Wolf, M.D., Niagara Falls.

PROGRAM No. 13

Thursday, May 12th, Clinical Day

Place of meeting, Perrysburg.

Arrangements in charge of Entertainment Committee—Carl G. Leo-Wolf, Chairman, Horace LoGrasso, Frank vander Bogert.

"Heliotherapy and Tuberculosis," a clinical day at Perrysburg through the courtesy of Dr. LoGrasso. Transportation cared for by Entertainment Committee.

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman ....James W. White, New York
Secretary ....William A. Krieger, Poughkeepsie

Place of Meeting, St. Peter's Church, Room B.

PROGRAM No. 14

Tuesday, May 10th, 2.30 P. M.

1. "Mastoiditis in Infants in Relation to Gastro-intestinal Disturbances," Edwin S. Ingersoll, M.D., Rochester.

Discussion opened by Samuel W. Clausen, M.D., Rochester (by invitation).

2. "The Pathology and Treatment of Chronic Pan-Sinusitis" (Chronic Multiple Sinus Disease), Perry G. Goldsmith, M.D., Toronto, Canada (by invitation).

Discussion opened by Eugene E. Hinman, M.D., Albany.

3. "Some Unusual Features of Chronic Sinusitis," Eugene E. Hinman, M.D., Albany.

Discussion opened by Perry G. Goldsmith, M.D., Toronto, Canada (by invitation).

4. "Points in the Early Diagnosis of Laryngeal Cancer with a Plea for Radical Surgical Treatment," John E. MacKenty, M.D., New York City.

Discussion opened by Duncan Macpherson, M.D., New York City.

5. "The Treatment of Chronic Suppurative Otitis Media with Tubal Perforation with the Aid of the Catheterizing Eustachoscope," Case Reports, Louis K. Pitman, M.D., New York City (by invitation).

Discussion opened by Samuel J. Kopetzky, M.D., New York City.

PROGRAM No. 15

Wednesday, May 11th, 9.30 A. M.

1. "End Results in Rhinoplasty," lantern slide demonstration, Jacques Maliniak, M.D., New York City.

Discussion opened by Daniel S. Dougherty, M.D., New York City.

2. "Neurology and Association with Conditions of the Eye, Ear, Nose and Throat," Foster Kennedy, M.D., New York City.

Discussion opened by John L. Eckel, M.D., Buffalo.

3. "Headache," Robert G. Armour, M.D., Toronto, Canada (by invitation).

Discussion opened by Arthur J. Bedell, M.D., Albany, David E. S. Wishart, M.D., Toronto, Canada (by invitation), and Andrew A. Fletcher, M.D., Toronto, Canada (by invitation).

PROGRAM No. 16

Wednesday, May 11th, 2.30 P. M.

1. "The Value of Scotometry in the Diagnosis and Treatment of Glaucoma," Aaron H. Thomasson, M.D., New York City.

Discussion opened by Conrad Berens, M.D., New York City.

2. "Non Surgical Treatment of Glaucoma," Searle B. Marlow, M.D., Syracuse.

Discussion opened by Albert C. Snell, M.D., Rochester.

3. "Non Operative Treatment of Cataract with Report on Lens Antigen Treatment," John M. Wheeler, M.D., and Zenas H. Ellis, M.D., New York City.

Discussion opened by A. Edward Davis, M.D., New York City.

4. "Two Safety Measures in Cataract Extraction," Walter S. Atkinson, M.D., Watertown.

Discussion opened by Harold H. Joy, M.D., Syracuse.

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

COMBINED SESSION WITH

THE NEW YORK STATE SOCIETY OF INDUSTRIAL HYGIENE

AND THE

SECTION ON INDUSTRIAL MEDICINE

Place of Meeting, St. Peter's Church, Room A.

Sessions, Tuesday, 9.30 A. M.
Tuesday, 2.00 P. M.
Wednesday, 9.30 A. M.
See Programs 24, 25 and 26.

PROGRAM No. 17

Wednesday, May 11th, 2.30 P. M.

Place of Meeting, St. Peter's Church, Room A.

1. "Rabies and Its Control," Veranus A. Moore, M.D., Dean, N. Y. State Veterinary College, Ithaca.

Discussion opened by Richard Slee, M.D., White Plains.

2. Series of five-minute subjects for round table discussion.

(a) "Report on 1927 Health Legislation," Paul B. Brooks, M.D., Albany.

(b) "Correction of Physical Defects in School Children," Davis C. McKenzie, M.D., Granville.

(c) "Discussion on Methods for Obtaining Correction of Physical Defects in School Children in Rural Communities," Frederick W. Sears, M. D., Syracuse.

(d) "Generalized Nursing Program in City Departments of Health," John H. Collins, M.D., Schenectady.

(e) "County Health Unit, Its Relations to the Medical Profession," Stephen A. Douglass, M.D., Olean.

(f) "Tuberculosis Reporting: How to Better It," George C. Ruhland, M.D., Syracuse.

(g) "City Scoring: Its Worth," Edwin G. Ramsdell, M.D., White Plains.

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman .... Herman F. May, M.D., Buffalo
Secretary .... Thomas K. Davis, M.D., New York

Place of Meeting, Niagara Hotel, Parlor A.

PROGRAM No. 18

Tuesday, May 10th, 2.30 P. M.

1. "The Mental Hygiene Situation in New York State," Frederick W. Parsons, M.D., Albany.

2. "A Case of Tabes with an Unusual Complication of Marked Muscular Atrophy," Edward Livingston Hunt, M.D., New York City.

3. "Results of Malarial Treatment in First One Hundred Patients at Buffalo State Hospital," Hyman L. Levin, M.D., Buffalo.

PROGRAM No. 19

Wednesday, May 11th, 9.30 A. M.

1. "Does Psychiatry Need Help?" Herman G Matzinger, M.D., Buffalo.

2. "Meningeal Reactions Following Trauma," Edward A. Sharp, M.D., Buffalo.

3. "Headache and Glandular Therapy," Timothy F. Donovan, M.D., Buffalo (by invitation).

PROGRAM No. 20

Wednesday, May 11th, 2.30 P. M.

1. "Present Day Social Care of Epileptic Patients," Thomas K. Davis, M.D., New York City.

2. "Relation of Vitamines to Neurology," John M. McKinney, M.D., New York City.

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman ....Howard Fox, M.D., New York
Secretary ....Earl D. Osborne, M.D., Buffalo

Place of Meeting, Niagara Hotel, Parlor D.

PROGRAM No. 21

Tuesday, May 10th, 2.30 P. M.

1. "Points of Contact Between Dermatology and Other Branches of Medicine," Charles M. Williams, M.D., New York.

2. "Industrial Cancer," George C. Andrews, M.D., New York.

3. "Dangers of Metastases from Incomplete Removal of Malignancies of the Skin," Albert R. McFarland, M.D., Rochester.

Second and Third Papers will be discussed together. Discussion opened by Burton T. Simpson, M.D., Buffalo.

4. "The Capacity of Dermatology," William Allen Pusey, M.D., Chicago, Ill. (by invitation).

5. "Studies in Mycotic Dermatitis. I. Superficial Yeast infections of the Glabrous Skin," Cleveland J. White, M.D., Buffalo.

Discussion opened by J. Gardner Hopkins, M.D., New York.

6. "Cosmetics; Composition, Dermatoses, Treatment," Lawrence K. McCafferty, M.D., New York, and Serafino Genovese, M.D., New York.

Discussion opened by S. Dana Hubbard, M.D., New York.

7. "Arsenic Findings in Dermatological Conditions," Binford Throne, M.D., Brooklyn.

Discussion opened by Earl D. Osborne, M.D., Buffalo.

PROGRAM No. 22

Wednesday, May 11th, 9.30 A. M.

1. "Pigeon Hole Dermatology," Walter J. Highman, M.D., New York.

2. "Vincent's Spirochete as a Cause for Genital Infections," Lt. Col. M. A. Reasoner, New York (by invitation).

Discussion opened by Charles A. Bentz, M.D., Buffalo.

Symposium on Syphilis

3. "The Role of the Darkfield in the Diagnosis of Syphilis," Josiah P. Thornley, M.D., New York.

4. "Syphilis and Its Recognition and Care from an Industrial Standpoint," William E. Low, Jr., M.D., Johnson City.

5. "Standardized Treatment in early Syphilis as a Means of Eliminating Neurosyphilis," A. Benson Cannon, M.D., New York.

The third, fourth and fifth papers will be discussed together.

Discussion opened by Mihran B. Parounagian, M.D., New York.

6. "The Pathology of Urticaria Pigmentosa," J. Frank Fraser, M.D., New York, and Maurice N. Richter, M.D., New York (by invitation).

7. "Experimental Urticaria; Wheals Induced Through Internal Channels," Abraham Walzer, M.D., Brooklyn, and Matthew Walzer, Brooklyn.

The sixth and seventh papers will be discussed together.

Discussion opened by David L. Satenstein, M.D., New York.

PROGRAM No. 23

Wednesday, May 11th, 2.30 P. M.

1. "Parapsoriasis; Suggestions for simplifying Nomenclature and Classification of Clinical Varieties for Teaching Purposes," Fred Wise, M.D., New York.

Discussion opened by Louis B. Mount, M.D., Albany.

2. "The Atypical Form of Neurofibroma," Oscar L. Levin, M.D., New York.

Discussion opened by Walter J. Highman, M.D., New York.

Symposium on Treatment of Skin Diseases:

3. "Chemotherapy in Diseases of the Skin," Paul E. Bechet, M.D., New York.

4. "Phototherapeutics of Dermatology; Basic Underlying Principles and Application," Herman Goodman, M.D., New York.

5. "The Internal Treatment of Skin Diseases," E. William Abramowitz, M.D., New York.

6. "Radium Therapy in Certain Skin Lesions," Earl L. Eaton, M.D., Buffalo.

7. "The Prevention and Treatment of Acne Vulgaris," Herbert H. Bauckus, M.D., Buffalo.

8. The third, fourth, fifth, sixth and seventh papers will be discussed together.

Discussion opened by Edward R. Maloney, M.D., New York.

SECTION ON INDUSTRIAL MEDICINE

COMBINED MEETING WITH THE

NEW YORK STATE SOCIETY OF INDUSTRIAL MEDICINE

AND THE

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

Benjamin J. Slater, M.D. .... Chairman, Section on Industrial Medicine.
Arthur M. Dickinson, M.D., President, New York State Society of Industrial Medicine and Secretary, Section on Industrial Medicine.
Leo F. Schiff, M.D. .... Chairman, Section on Public Health.

Place of Meeting, St. Peter's Church, Room A.

PROGRAM No. 24

Tuesday, May 10th, 10 A. M.

1. Address of Welcome—Benjamin J. Slater, M.D., Rochester.

2. Reply by Arthur M. Dickinson, M.D., Albany.

3. "Anatomy and Physiology of the Brain," with lantern slides, Wardner D. Ayer, M.D., Syracuse, Attending Physician, University Hospital.

4. "Symptoms, Diagnosis and Treatment of Acute Cranial and Intra-cranial Injuries." Max M. Peet, M.D., Ann Arbor, Mich., Assistant Professor of Surgery, University of Michigan Medical School; Chief of Neurological Surgery, University Hospital, Ann Arbor.

Discussion opened by Harold H. Baker, M.D., Rochester.

12.30 P. M.—Luncheon and Social Hour, Niagara Hotel, Main Dining Room.

PROGRAM No. 25

Tuesday, May 10th, 2 P. M.

5. "Chronic Brain Injuries," John L. Eckel, M.D., Buffalo, Associate Professor of Nervous and Mental Diseases, University of Buffalo; Attending Neurologist, Buffalo General an Buffalo City Hospitals.

Discussion opened by Francis J. Ryan, M.D., Syracuse.

PROGRAM No. 26

Wednesday, May 11th, 9.30 P. M.

1. "The Relationship of Industrial to Preventive Medicine," Louis I. Harris, M. D., Commissioner of Health, New York City.

Discussion opened by Matthias Nicoll, M.D., Albany, Donald B. Armstrong, M.D., New York City.

2. "Health Hazzards Due to Factory Atmosphere," C. E. A. Winslow, M.D., Yale University, School of Medicine.

Discussion opened by William A. Sawyer, M.D., Rochester.

3. "A Study of Cancer Death Rate Variations, Combustion Products of Fuel, Topography and Population," Jerome Meyers, M.D., New York City.

4. "Epidemiology of Whooping Cough," Edward S. Godfrey, Jr., M.D., Albany.

CANCER DAY—MAY 12th

MORNING SESSION—DEMONSTRATION

Committee on Cancer Demonstration: Burton T. Simpson, Chairman; Harley U. Cramer, Bernard F. Schreiner, Alvin G. Foord, William F. Jacobs, Marshall Clinton, Francis M. O'Gorman and A. A. Thibaudeau, M.B.

Place, Niagara Hotel, Ball Room.

PROGRAM No. 27

Gross Pathology—Demonstration of Various Types of Tumors. Courtesy of Buffalo City Hospital. William F. Jacobs, M.D., and Alvin G. Foord, M.D., Buffalo.

Microscopic Pathology—Alvin G. Foord, M.D., William F. Jacobs, M.D., and Burton T. Simpson, M.D., Buffalo.

Demonstration of Rapid "Table" Diagnosis by Means of Frozen Sections, Alphonse A. Thibaudeau, M.B., Buffalo, Miss Irma Miller and Eugene Burke.

Demonstration of Methods of Cancer Research. Mr. Millard C. Marsh, Biologist, State Institute for the Study of Malignant Disease, Buffalo.

Demonstration of Clinical Cases and X-ray Films, Isaac Levin, M.D., Director New York City Cancer Institute. Bernard F. Schreiner, M.D., Buffalo, Surgeon, State Institute for the Study of Malignant Disease, Buffalo.

Demonstration of Radium Appliances. Radium Chemical Company, Pittsburgh, Pa.

Moving Pictures Showing Treatment by Endothermy. Geeorge A. Wyeth, M.D., New York City.

Moving Picture Showing Films on Cancer Prevention that will be Loaned by the American Society for the Control on Cancer. John M. Swan, M.D., Rochester, State Chairman, American Society for the Control of Cancer.

PROGRAM No. 28

Afternoon Session—Talks.

Place of Meeting, Knights of Columbus Home, Room A.

Etiology of Cancer—Burton T. Simpson, M.D., Buffalo, Director State Institute for the Study of Malignant Disease, Buffalo.

Discussion opened by Herbert A. Smith, M.D., Buffalo.

Cancer Research—William H. Woglom, M.D., New York City, Institute of Cancer Research of Columbia University.

Discussion opened by Burton T. Simpson, M.D., Buffalo.

Diagnosis and Prevention of Cancer—Isaac Levin, M.D., New York City, Director New York City Cancer Institute, New York.

Discussion opened by William D. Johnson, M.D., Batavia.

Treatment of Cancer—Bernard F. Schreiner, M.D., Buffalo, State Institute for the Study of Malignant Disease, Buffalo.

Discussion opened by Douglas Quick, M.D., New York City.

ENTERTAINMENTS FOR THE DOCTORS

Golf tournament at Fort Hill Golf Club. This is a very sporty golf course. All doctors desiring to play in the tournament should make application for assignments to Dr. Carl G. Leo-Wolf, Chairman, 108 Buffalo Avenue, Niagara Falls, N. Y.

ENTERTAINMENTS FOR LADIES

Mrs. W. H. Hodge, Hostess

Assistant Hostesses

Mrs. C. G. Leo-Wolf
Mrs. A. L. Chapin
Mrs. Walter Scott
Dr. Beatrice Smith
Mrs. E. L. Burhyte
Mrs. G. P. Eddy
Mrs. F. H. Towne
Mrs. E. E. Gillick
Mrs. Elbert Ingram
Mrs. E. A. Palmer
Mrs. R. H. Sherwood
Mrs. Frederick Schnell
Mrs. G. L. Miller
Mrs. Oscar Baer
Mrs. Frederick Leighton
Mrs. L. M. Jane
Mrs. W. Roger Scott
Mrs. H. U. Cramer

TUESDAY AFTERNOON

Bridge Tea, Shredded Wheat Auditorium. (By courtesy of the Shredded Wheat Co.)

Hostesses

Mrs. E. L. Burhyte
Mrs. G. P. Eddy

WEDNESDAY MORNING

Golf, Lewiston Heights Country Club.

Hostess

Mrs. F. H. Towne

WEDNESDAY AFTERNOON

Automobile ride to Fort Niagara, Reception by Col. Ingram, Commander of the Fort, and talk by him on the History of the Fort, followed by tea at the Lewiston Heights Country Club.

Hostess

Mrs. A. L. Chapin

During entire meeting at least two hostesses will be found in the lobby of the Niagara Hotel and at Registration Bureau to arrange automobile rides for the visiting ladies.

Hostess in charge of automobiles: Mrs. R. H. Sherwood.

During the annual ball all hostesses will be on the floor to introduce the guests.

Illumination of the Falls every evening from 9 to 11.30. The illumination is in all colors of the spectrum.

AMERICAN MEDICAL ASSOCIATION CONFERENCE ON PUBLIC HEALTH

A Conference on Public Health was held on March 24 and 25 in Chicago under the auspices of the American Medical Association, in the building of the Association. Over seventy representatives of societies engaged in public health were in attendance. New York was represented by Dr. Wendell C. Phillips, President of the American Medical Association, who presided; Dr. Harlow Brooks, representative of the physicians of New York City, who presented one of the leading papers before the Conference; Dr. George M. Fisher, President of the Medical Society of the State of New York; Dr. Frank Overton, Executive Editor of the New York State Journal of Medicine; Dr. Francis Carter Wood, Director of the Crocker Foundation for Cancer Research of the College of Physicians and Surgeons; Dr. Matthias Nicoll, Jr., State Commissioner of Health; Dr. Linsly R. Williams, Director of the National Tuberculosis Association; Dr. Donald B. Armstrong, representative of the medical service of the Metropolitan Life Insurance Company; Dr. Lyman Fisk, Director of the Life Extension Institute; Mr. Homer Folks, Secretary of the State Charities Aid Association; Mr. John A. Kingsbury of the Milbank Fund; and Mrs. W. B. Meloney, Editor of the Sunday Magazine of the *New York Herald Tribune*. The majority of those in attendance were specialists in public health.

The printed program consisted of three sessions with nine papers. The session on the morning of the 24th was on the relation of the physicians to public health, and this subject dominated the other two. The afternoon session was on public health education, and that on the following morning was on the statistics of expenditures by official departments of health. Those in attendance were guests of the American Medical Association at supper in the evening in the Hotel Virginia.

Regarding the relations of the medical profession to public health, much was said by way of diagnosis of general difficulties and misunderstandings between family doctors and lay organizations. As for treatment, considerable was said in a general way about the duty of family doctors to engage in public health work, but almost the only concrete suggestion was that of Dr. Fisher who recommended a trial of the plan of the Committee on Public Relations of the New York State Medical Society.

Dr. Wendell C. Phillips, in opening the Conference, said that the object of the Conference was to promote mutual understanding and team work between the general practitioners of medicine and public health workers. Physicians should do more work of a preventive nature, especially in advice in personal hygiene. They should treat the patient rather than his disease. The American Medical Association is seeking to educate the public by means of its magazine *Hygeia*, and by clip sheets of the Journal sent to a long list of newspapers throughout the nation.

Dr. Olin West, General Manager of the American Medical Association, introduced the heads of the divisions of the Association, who each described his work briefly.

The first paper was by Dr. Hugh S. Cumming, Surgeon General, U. S. Public Health Service. "Public health," he said, "has been a governmental function from the earliest times, as is evidenced by public water works and baths, and various official positions established by Greek and Roman governments for maritime quarantines, and the segregation of lepers, and the Hebrew and Egyptian laws relating to hygiene.

"Ecclesiastical orders and institutions for the care of the sick were the beginnings of non-official public health work, but they were for the relief of suffering rather than its prevention. It was not indifference that led to neglect of prevention, but rather the ignorance of what to do.

"Modern preventive work began in Great Britain in the 17th Century as the result of industrial development, and was a governmental function with non-official bodies acting in an educational way. Prevention in the United States at first was largely environmental, such as the suppression of contagious diseases and the control of water and milk. But Federal control was mostly local except in large matters, such as protection against yellow fever. Modern public health activities were made possible by the epochal discoveries in bacteriology. As the searchlight of science was thrown into the misty darkness, the hopeless and blind efforts against contagions gave way to intelligent conquest; and the army of physicians, who had hitherto stood alone in its fight against diseases, was joined by allies, such as the sanitary engineer, the laboratory worker, and the social economists.

"The role of the family physician in public health work consists in his wise guidance of the opinions of his fellow citizens in securing adequate public health organizations in his community, county, and state, and in the correct diagnosing and reporting of contagious diseases. But his activities here have been hampered by mistaken notions of professional ethics and a dislike of political activity.

"A development, unique and almost peculiar to this country, has been that of non-official organizations devoted to various phases of improvement of the people from general welfare education, to fighting individual diseases. These organizations have been of inestimable value in influencing public opinion and in supporting the governmental agencies in public health. Endowments for educational purposes now aggregate one billion dollars, much of which is used to educate physicians for private practice. There are also organizations devoted to public health work, such as the Rockefeller Foundation and the Milbank Fund. Others, such as the National Tuberculosis Association, depend on voluntary subscriptions. While some organizations support medical research work, others are directed to the education of the public and the stimulation of governmental activity. We shall probably never develop official preventive work to such an extent as to eliminate the voluntary non-official organizations. While the endowments made by private persons to support non-official health organizations may have sometimes acted unwisely, yet there is a marked tendency toward consolidation and cooperation, and the adoption of enlightened methods.

"The medical profession has also passed through an evolution from a scattered few physicians, individualistic and far-seeing, up to the present organized guilds, culminating in the American Medical Association.

"The public has recognized the dignity and importance of physicians and has thrown around the permission to practice medicine intellectual and educational requirements higher than those of any other profession. The increased knowledge of disease is such that its possession and application are beyond the capacity of any individual, and so cooperation is necessary.

"The best medical services are beyond the financial ability of a large proportion of the people, and are furthermore not everywhere available, especially in rural districts. Nor has the medical profession always appreciated its duty to the public in education in preventive medicine.

"Official health organizations have developed from skeleton groups of part-time doctors organized for suppressing epidemics, to highly organized departments which have entered the field of preventive medicine in such activities as universal vaccination, the examination of specimens for diagnosis, and the manufacture of laboratory products. Free clinics have been established, and demonstrations have been conducted by non-official organizations.

"The problem of preventive medicine would seem to involve the "Eternal triangle"—the public, the health official, and the practicing physician. It may even be quadrangular if we divide health workers into official and non-official. But physicians as a class have not appreciated their obligation to the public in public health, particularly in health education; but this condition is being remedied under the leadership of the American Medical Association. Public health workers, both official and non-official, have extended their field of activity beyond prevention so that they now include the improvement of the physical and mental efficiency of the individuals which compose the public. Some workers are sometimes discouraged by the ignorance and indifference of the public, but yet the people are being aroused to the importance of health. The question is no longer approached solely from ethical and humanitarian motives, but from the economic standpoint, as is shown by the health work of great business corporations.

"A larger part of non-medical public health work is now being done under the direction of non-medical men. If physicians are not aroused to the importance of public health work, and do not wisely guide and assist the public, we shall have attempts at the socialization of medicine, such as are made in other countries. The physician owes a duty to the public as its counsellor and guide. The discharge of that duty lies with the local physicians in each community.

"The duty of the physician to the public should be taught in medical schools. The local medical societies should see that the public health officers are taken out of partisan politics; that competent public health officials are chosen; that adequate appropriations are made for public health; and that moral and active assistance is given to local health officials.

"It is unheard that a health officer should complain of the intrusion of the private practitioner in his field of activity. While certain fields of activity may be covered by the state, yet new fields are opening to physicians.

"The science of medicine can no longer be restricted within the confines of the medical profession. The biochemist, the sociologist, the physicist, the sanitary engineer, and the worker in pure science, must all be included in public health. The cure and prevention of tuberculosis, for example, is as much an economic problem as a medical one. Even in private practice the doctor must rely on non-medical and technical assistants and ultimately depend for his remedies either upon the state or commercial enterprises under state supervision. No longer can we speak of voluntary action being separate from the official, for the action of the official is the expression of the wish of the people.

"It will be impossible to delimit the respective fields of the private practitioner and the public health official in specific terms appropriate to the whole country.

"The people as a whole appreciate the value of health and the method of obtaining it, but they are more or less indifferent how this end shall be accomplished. It is the privilege of physicians to cooperate with the public and its duly appointed representatives in the development of a satisfactory system of attaining health, and it would be unfortunate to give the public any other impression.

"The medical profession has always been regarded as the natural sponsor, not only of individual but also of community health. Whether this service in the future shall be rendered by the profession in cooperation with health authorities, or be made incumbent on the legal health representatives must depend on the character of the service rendered by the profession. It is the object of the organized profession to impress upon each individual physician his responsibility in this matter."

Dr. Arthur T. Holbrook, Milwaukee, discussed the relations of the physician to public health in the city of medium size, such as Milwaukee, and said: "Personal contact is the characteristic of public health work in the smaller city as distinguished from that in a city of major size. Physicians and public health workers know one another, and can readily smooth out their differences and reach agreements.

"If one hundred private practitioners were to pick up a journal containing an article with the title of this address, at least eighty-five would pass it by. Eight would be those who consistently read their medical journals from cover to cover, and the other seven would include specialists in public health. This expresses the lack of personal responsibility for public health on the part of the average physician. Yet every one of the eighty-five doctors would argue earnestly in favor of the public health program; but when it comes to concrete performance, he leaves action to officials. He does not attend public hearings on questions of community health; he joins some of the allied societies but does not attend the meetings; he favors public clinics but cannot tell where they are located. He is like the Christian who never goes to church. How is this physician to acquire the idea that every practitioner of medicine who is granted a license has a definite obligation to the state, and that it is his duty to assist in the work of the health department? If he lives in New York State, the sanitary code of his state points out some of these duties.

"The medical profession leaves the work of the allied health organizations too much in the hands of the laity. There would be less criticism of these organizations if doctors sought membership in them, and took an active part in their proceedings.

"Now what may a physician of a small city expect of the public health workers? First of all, he expects that the officials shall be scientifically trained men, free from political influence. The medical societies can do much to bring this about.

"Second, physicians have a right to know definitely the attitude of the health officer toward medical practice in the community. He will insist on the proper control of dispensaries and clinics, on cooperation in the city hospitals, and on the reference of cases back to the attending doctor. Practically all health officers are cooperating with the doctors.

"Third, he expects the cooperation of the health officer in the control of cases of communicable diseases; but in this matter the doctor is uncooperative more often than the health officer.

"Fourth, doctors expect the health department to take the leadership in the exposure of quacks.

"The fear that public health administration will deprive deserving physicians of a competent livelihood is groundless.

"It is a fallacy to try to define the exact and separate responsibilities of preventive as distinguished from curative medicine.

"The relations of physicians to health departments has been well handled by Dr. John P. Koehler, Health Officer of Milwaukee. He has an advisory committee of fourteen members, consisting of six physicians and eight laymen. The efficient work of this representative committee has earned for it the title "The Unofficial Guardians of the City's Health."

Dr. Frank W. Cregor, of Indianapolis, spoke from the standpoint of a doctor who had gone through the varied experience of a rural practitioner; who had moved to a village and then to a large city, and had become a specialist in practice; and during his entire career had been identified with his local health departments and public health work.

Dr. Cregor first spoke of the manner of selecting a health officer by lay boards, and urged the societies of physicians to take an active interest in securing properly qualified men for the position.

"Medical practice presupposes individual service," he said, "and yet the medical profession is the one body qualified to do public health work. Potentially the physician engaged in public health work reflects the attitude of the profession. This attitude is nearly always correct in the abstract, but is often rather narrow and biased concretely.

"When new problems arise in departments of health, it is the part of wisdom to consult the medical societies and get the support of doctors before trying to promote something for which the doctors are not prepared.

"The architecture for the health organization is probably as good as it can well be made, but its structure can be improved. One element of added strength would be close cooperation with organizations of physicians. Physicians need their organizations and health departments, and to use them as means of discharging their civic obligations."

Dr. Harlow Brooks, of New York City, spoke from the viewpoint of a medical man practising in one of the great cities, and said: "The invitation has come to me to speak on some points in which the doctor might not be in complete sympathy with the activities of lay organizations engaged in public health work. Doctors must consider as professional workers equal with themselves all those who in hygiene, bacteriology, pathology, anatomy, physiology, and therapeutics have equalled the requirements of a class A medical college in these subjects. But we have a quite natural suspicion of those lawyers, politicians, business men and preachers, who have had no basic training in medical or allied subjects.

"I was astonished the other day to read the statement of a worker in public health that the medical profession was often found in conflict with public health authorities. I cannot understand such a position unless the public health service in that instance was interested, as are some of the lay organizations, in activities basicly contrary to the teachings of medical science.

"The absurd accusation has been made that the medical man is not interested in the prevention of sickness, but only in its alleviation. The family doctor is, and always has been, the very bone and sinew of all successful methods for the prevention of disease. Bitter experience has taught him to view with much caution the emanations of untrained, unthinking, irresponsible dabblers in health and medical practice. He is slow to accept unreasonable theories, or to contract the hysteria which is likely to develop in every epidemic.

"The accusation has also been made that the medical practitioner is not public spirited, not a nationalist—this of a profession which gave twenty per cent of its personnel, old and young, in a great national calamity; of a profession whose members are acting on the board of every educational advance, church, and charitable venture; a profession which has always identified itself in every good project of humanity. There are those who feel that hospitals would be beautifully efficient institutions if only there were no doctors to demand that business step aside for welfare of the sick, and that organized charity reach the unfortunate instead of spending its efforts and funds on a perfect business institution.

"Criticisms of the types just mentioned originate largely from the activity of what General Harbord calls the 'pathogenic bacillus' known as the paid executive secretary. He has never flourished in the culture medium supplied by the medical profession. As to the justification of the criticisms, it is too true that there are a few who despise the code of ethics, fail to read medical journals and to attend medical meetings, and do not try to keep abreast of the times. Some few even make their profession a business and die rich. But these are the exceptions and are not representative of the great mass of physicians who value their professional standards higher than life itself.

"Misunderstandings have arisen between the medical profession and some worthy public health activities. Was there ever progress without argument or criticism? There is little or no criticism of those activities controlled by the United State Public Health Service or those of the Departments of Health of the states and cities. Misunderstandings with social activities in public health have nearly always originated when physicians have been asked to forget their scientific training, or when their code of ethics has been ignored. Medical ethics apply to public health as strongly as to any other medical specialty.

"Now, let us consider what the family physician says of the public health worker. In the first place, he resents nurses doing the work of physicians—making diagnoses and dictating the treatment which the family doctor shall carry out.

"He resents the underpaid, time-serving employee who minimizes to school children the work of the family doctor. He resents the snap diagnosis of an employee on a case to which he has given serious and experienced study.

"He resents being directed in the institution of treatments which he knows, from his journals and societies, to be still in the experimental stage.

"This is all easily correctable, both as to the nurses and to the physicians employed in public health work. Employment of young physicians at meager salaries robs the profession of the material from which it should recruit its general practitioners, now the greatest need of the profession. I often tell my internes as they graduate that the worst thing which can happen to them is to receive a salary on which they can live, from some lay institution, in which the resulting professional experience does not reward the service, for many of them later on do not dare to give up their salaries and start out for themselves. Some of the brightest youngsters I have known have been ruined by such activities. They typify the business and non-professional controlled society.

"Another matter in the control of professional institutions by laymen lies in the demands made on the young men for services inadequately repaid either by the experience which they gain, or by the pay which they receive. Many privately controlled hospitals are sinners in this matter. Some are notorious for their ruthless but entirely business-like exploitation of the young physician.

"Wealth under the guise of charity and public progress more than seldom dominates even medical education. High endowments without professional control have dwarfed medical teaching in more than one institution.

"Public medicine cannot be divorced from private medicine except at a loss by both. The most potent and influential teacher of public medicine and of practice is the physician in contact with his patient.

"The value and the influence of the average practitioner is beyond the comprehension of the executive who is himself not conversant with the details of medical practice, or who has through lack of experience so estranged himself from his profession and its practitioners that he fails to comprehend even its purposes. He is likely to develop a superiority complex of a peculiarly inexcusable type. This is the disease from which many public health workers suffer — they are those who criticize the average doctor.

"A recent number of the *Atlantic Monthly* carried a just arraignment of the control of medical education by self-perpetuating bodies, such as the general education board. This same subject was discussed in an editorial, "The Perils of Magnanimity," in the *Journal of the A. M. A.* of March 5th. The *Journal of the A. M. A.* for February 12th also has an editorial on "The Physician's Responsibility in Preventive Medicine," which physicians generally approve..

"It is a simple matter to readjust our differences and to bring to us the whole-hearted support of the people. Let us acquaint them with our purposes and invite them into our confidence. Let us give our ideas to the public press. Remember, however, that every one of our people has his doctor, and that he does not have any higher opinion of the medical profession than his own doctor. We and our reputation in every respect are absolutely in the hands of the practising physician. May it never be otherwise!

"What constructive suggestions can the American Medical Association offer? The medical profession is ready to accept the following activities:

"1. The Association shall take the lead in the control of its own members. It and not the zealous amateur shall set the standard in the education, our position in this nation, and even our discussion of medical matters.

"2. The national, state and county societies shall enlist every member in the work of public health, shall invite the cooperation of lay bodies, but shall insist on medical standards and ethics.

"3. The medical organizations shall detail lecturers on health for public occasions, and give to the press health news and instruction.

"4. Medical organizations shall teach students and young practitioners the essentials of public health as we now teach them an outline of medicine, therapeutics, and surgery.

"5. Medical organizations shall uphold the ideal expressed by Dr. George Vincent, 'Every doctor a health officer'."

Mr. Homer Folks, Secretary of the New York State Charities Aid Association, the typical lay health organization of New York State, answered Dr. Brooks and said he was surprised at the trend, spirit and tone of his remarks. He said that he had not met Dr. Brooks at the board meetings of any of the lay organizations, and so he could not see how the doctor got his impressions.

Mr. Folks explained that all lay health organizations are advised and directed by physicians, and that the State Charities Aid Association has the President of thé Medical Society of the State of New York on its Board of Managers. When the doctors had given the lay organizations concrete advice, it had been adopted. The lay organizations had agreed with medical men when the representatives of the two organizations had sat down together and discussed their mutual problems.

Mr. John A. Kingsbury, speaking for the Milbank demonstration in Cattaraugus County, said that the leaders of the demonstration had brought the matter before the County Medical Society, and that only ten members were present. Mr. Kingsbury had been able to secure the endorsement of the ten who attended the meeting, but the difficulty since that time has been to reach the fifty or more who did not attend the meeting.

Dr. Donald B. Armstrong, representing the educational work of the Metropolitan Life Insurance Co., stressed the importance of teaching the people personal hygiene.

Dr. George M. Fisher, President of the Medical Society of the State of New York, told of the work of the Committee on Public Relations which is composed of an equal number of representatives of the State Medical Society and of the State Charities Aid Association. It had held several meetings, and discussed problems of overlapping activities and cooperations. He said that the prospect is that the Committee will smooth out present differences, and prevent future misunderstandings.

Dr. Fisher suggested that the American Medical Association appoint a committee similar to the Public Relations Committee of New York State, and that it should act on problems of a national scope. This suggestion was approved by those present at the meeting.

Dr. Henry F. Vaughan, Health Officer of Detroit, said that it would be a mistake if the meeting should adjourn without devising a common meeting ground which should begin at the American Medical Association and set a standard of procedure that could be followed by the workers down to the smallest units in the counties.

Dr. Linsly R. Williams, Director of the National Tuberculosis Association, described the methods of the Association, and emphasized the policy of the Association to consult the local doctors in their plans.

Following his paper there was some criticism of the methods of the State Associations of Tennessee and Alabama where the wishes of the local physicians were not followed. Dr. Williams replied that the National organization always worked with the local doctors, and he regretted his inability to control the unwise actions of representatives of subordinate groups.

The second topic of discussion was public health education. Dr. Matthias Nicoll, Jr., Commissioner of Health of New York State, described the publications of his Department. He said that there was a great call for the weekly Health News because it was made up of accounts of actual occurrences in the fields, and was therefore live news. The pamphlets published by the Division of Maternity, Infancy and Child Hygiene are also popular. Dr. Nicoll described the radio talks, and said that their widest circulation was not that transmitted over the radio itself, but was the newspaper publicity which followed the sending of copies of the talks to newspapers.

Dr. Nicoll said that health posters had not been of much value.

Mr. E. G. Routzahn, of the Russell Sage Foundation, described the essentials of health publicity writing.

Dr. Morris Fishbein, Editor of the *Journal of the American Medical Association,* described the extensive information system by which the A. M. A. can give accurate information regarding every doctor in the country from the beginning of his medical course down through his entire life. The A. M. A. has thousands of calls annually from newspapers and other sources, to supply information regarding physicians and new cases.

Dr. Fishbein also gave much inside information regarding newspaper syndicates and their promotion of quacks, such as Coue and his trip to America.

Mrs. W. B. Meloney, Editor of the Sunday Magazine of the *New York Herald Tribune,* told of the changed attitude of newspapers toward health matters in recent years. While a few years ago it was the rule of some newspapers that the word "cancer" should not appear on the front page, now the newspapers carry whole columns of the proceedings of cancer conferences.

Newspapers also do much to correct misapprehensions of the public. A newspaper received hundreds of inquiries from women wishing to buy tape worms in order to reduce their weight.

Dr. Bundeson, Health Commissioner of Chicago, described the publicity of the Chicago Health Department. He said that he took his health writings home to his young daughter, and if she could not understand his article, he rewrote it until she did understand it.

He spoke of the appeal of health, and said that a big chewing gum manufacturer had got rich by advertising the digestive value of chewing gum after every meal.

Dr. J. A. Ferrell, of the International Health Board, gave a paper on the per capita expenditures for health in the several states. He placed Delaware at the head of the list with an expenditure of 32.9 cents per capita, and New York twelfth, with 11.6 cents. Dr. Nicoll said that the expenditure given by Dr. Ferrell was for only one half of the state, because none went to New York City. If that correction were made, New York would stand second in the list of states.

OTSEGO COUNTY MEDICAL SOCIETY

The March meeting of the Otsego County Medical Society was held in the Oneonta Hotel this 8th day of March. Meeting called to order by Dr. F. H. Marx, President. Minutes of the December meeting read and approved. The following resolutions were presented and approved:

"The members of the Otsego County Medical Society at their regular meeting March 8th, desire to place upon its records the esteem and respect in which they hold the memory of Dr. William R. Seeber, for many years an honored member, and to express their deep sympathy to his family. It is further directed that these resolutions be published in the press and a copy be sent to his family.

"*Whereas,* in the death of Dr. George E. Merritt the community of Cherry Valley has lost a valuable practitioner, and The Otsego County Medical Society one of its oldest and most beloved members.

"*Be it Resolved,* That the Society voice this tribute to his memory by spreading this resolution on the minutes of the Society and sending a copy to his family."

E. J. Parish,
A. H. Bissell, *Committee.*

A request was made that Dr. A. H. Brownell prepare a history of the Society from June, 1906, to date. Dr. Boorn having at that time given an exhaustive report of the Society and the same now on the minutes. This report to be submitted at the semi-annual meeting.

A committee was appointed to revise and publish the By-Laws of the Society.

It was decided that the September meeting should be a social gathering in the nature of a clam bake.

A revised and more uniform fee bill will be presented to the Society at the first meeting of the Lecture Series.

The Lectures given by the Board of Health will be begun March 29th and continue each week for six weeks.

After the dinner Dr. Ralph Harloe of the Long Island College Hospital gave a most interesting and instructive illustrated address on the new method of treating empyema.

Members present. Drs. R. W. Ford, Otsego; E. C. Winsor, Schenevus; A. H. Bissell, Cooperstown; F. E. Bolt, Worcester; F. L. Winsor, Laurens; Dart, Parish, Latcher, Champlin, Marx, Lang, Mills, Getman and Brownell of Oneonta.

KINGS COUNTY RESOLUTIONS

The Medical Society of the County of Kings at its meeting on December 21, 1926, appointed a committee of twenty-three members, of which Dr. Walter D. Ludlum was Chairman, to consider matters in which there was a difference of opinion between the county organization and the State Society. The committee appointed two subcommittees to consider the two questions of publicity in the *New York State Journal of Medicine* and Amendments to the Constitution and By-laws of the Medical Society of the State of New York. The subcommittees prepared two resolutions which were adopted by the whole committee, and were presented to the Medical Society of the County of Kings, at its regular meeting on February fifteenth.

The resolution in regard to publicity was as follows:

Whereas, the minutes of the Medical Society of the County of Kings show that the Medical Society of the State of New York, through its regularly authorized officials, has twice within a year refused to open the columns of its Journal to publish therein resolutions which had been regularly carried by the component Medical Society of the County of Kings, and,

Whereas, the membership of the Medical Society of the County of Kings feels aggrieved at this refusal to acquaint other component county societies of the alternative measure to the Webb-Loomis Medical Practice Act, and further, to its reasons for opposing the Webb-Loomis Act, and,

Whereas, the continuation of such an attitude would be prejudicial to the good feeling which must always exist between the Medical Society of the State of New York and the component county societies, be it

Therefore Resolved, that the Medical Society of the County of Kings hereby asks the Executive Committee of the Medical Society of the State of New York to direct that the columns of its Journal be always open for the publication of resolutions adopted by county societies when requested and that on moot matters affecting the welfare of all practicing physicians of the State of New York its columns be impartially open to opponents and proponents of pending legislation.

Concerning changes in the Constitution and By-laws, the committee reported:

"With regard to the amendments to the Constitution the situation is far less clear, except to the relatively small number of members of this Society who have been delegates or actively associated with the meetings of the Medical Society of the State of New York. By the Constitution and By-laws of that body, the House of Delegates meet once a year and in the interim of its meetings the work of the Society is carried on by the Council. This Council when originally organized was small compared to its present membership and probably was, at least was intended to be, representative, having as a large part of its membership the councillors of the direct branches. With the passing of time and various amendments to the State Constitution and By-laws its membership has greatly increased. It consists of all the officers of the Society, which are a President, a President-Elect and two Vice-Presidents, a Speaker and a Vice-Speaker, five Trustees, a Secretary and Assistant Secretary, a Treasurer and Assistant Treasurer, the eight Councillors heretofore mentioned, and, besides these officers, the Chairmen of the Standing Committees, the Editor-in-Chief, and the retiring President for a term of one year after his term of office expires.

"The Council is obliged by the Constitution and By-laws to elect an Executive Committee which in the interim of meetings of the Council functions for the Council and therefore for the Medical Society of the State of New York. As matters have turned out the Council meets but a very few times, and for all practical purposes during the most of the year the Executive Committee of the Council *is* the Medical Society of the State of New York. In addition to this, certain members of the Council hold a more or less continuous office, whereas the other members come and go, these few somewhat permanent officers perfectly naturally dominate the policies of the Medical Society of the State of New York. The object of the amendments to the Constitution and By-laws herewith offered is to make the formation and continuance of such an oligarchy less easy and to restore the Council to a position of a more representative character and of greater influence.

"As you know, amendments to the Constitution and By-laws presented at one meeting of the Medical Society of the State of New York must lie over until the next meeting of the Society one year later and be published in the meanwhile. If the resolutions about to be offered are adopted that is the course these proposals must take.

"Article I. of the Constitution of the Medical Society of the State of New York says: 'The purpose of this Society shall be to federate and bring into one compact organization the medical profession of the State of New York.'

"In order to accomplish this it is essential that the desires and opinion of the component parts of the Society shall be furnished with a mechanism of expression which shall function between the meeting of the House of Delegates, the present organization of the Council and of the Executive Committee of the Council place upon the officers of the Society a responsibility for ascertaining and executing the wish of the Society with no proper means of learning its nature or detail. It is desirable that such means be provided and in order that this may be accomplished we propose the following amendments to the Constitution.

"ARTICLE IV. now reads:—'The Council shall be composed of (a) officers of the Society, (b) Chairmen of the Standing Committees, (c) the Editor-in-Chief, (d) the retiring President for a term of one year after his term of office has expired.' This to be amended to read:

> "'The Council shall be composed of the President, the Secretary, the President-Elect, the Treasurer, and the President and Secretary of each of the District Branches.'

"ARTICLE V. now reads as follows:—'The officers of the Society shall be a President, a President-Elect, two Vice-Presidents, a Speaker and a Vice-Speaker of the House of Delegates, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, five Trustees, and one Councillor from each District Branch, who shall be the President thereof. He shall be elected by the District Branch in which he resides for a term of two years. The officers, except the Councillors, shall be elected for one year or until their successors have been duly chosen. They shall take office at the termination of the annual meeting.' This to be amended to read:

> "'The officers of the Society shall be a President, a President-Elect, two Vice-President, a Secretary and Assistant Secretary, a Treasurer and Assistant Treasurer, a Speaker and Vice-Speaker, five Trustees, and two Councillors from each District Branch, who shall be the President and Secretary thereof. They shall be elected by the District Branch in which they reside, for a term of two years. The officers, except the Councillors, shall be elected for one year or until their successors have been duly chosen. They shall take office at the termination of the annual meeting.'

"SECTION 26 of the By-laws to be repealed and the following substituted:

> "'The Executive Committee of the Council shall be constituted as follows: The President, the Secretary, the Treasurer, and four of the eight Presidents of the District Branches, 1, 3, 5, 7, serving for one year and those from District Branches 2, 4, 6, 8, the next. The Executive Committee shall, when elected, organize immediately and elect a Chairman, a Vice-Chairman and a Secretary. The Executive Committee shall hold regular meetings at times and in places that shall be fixed by the Chairman and at other times subject to the call of the Chairman, and any two members of the Executive Committee may require the Chairman thereof to call a meeting for such time and place as shall be designated by them in writing, of which the members shall have at least three days' notice. Four members shall constitute a quorum. It shall prepare a budget to be acted upon by the Board of Trustees.'

"SECTION 38 of the By-laws to be amended to read:

> "'The Speaker shall preside at all meetings of the House of Delegates and shall perform such other duties as parliamentary usage may require.'

"SECTION 62 of the By-laws to be amended to read:

> "'The President shall report to the Council the committees that he shall deem expedient for the purposes of the meeting of the House of Delegates and the members of these committees shall be elected by the Council at the meeting of that body in February preceding the meeting of the House of Delegates.'

"SECTION 20 of the By-laws to read:

> "'It shall meet once during the months of October, December, February and April of each year, the time and place to be selected by the President, and it shall meet at other times upon the request in writing of five members of the Council upon the call of the President'."

The Medical Society of the County of Kings adopted the report of the Committee and directed that copies be sent to all the county societies of New York State.

THE NEW YORK TUBERCULOSIS AND HEALTH CONFERENCE

The New York Tuberculosis and Health Conference held a two-day session on January 19 and 20 in the Hotel Biltmore, New York City. The Conference was under the auspices of eight health organizations, as follows:

The United States Public Health Service.
The New York State Department of Health.
The New York City Department of Health.
The Medical Society of the State of New York.
The State Charities Aid Association.
The New York City Tuberculosis and Health Association.
The Milbank Memorial Fund.
The Bellevue Yorkville Health Council.

Those sponsoring the Conference therefore included the entire trinity of public health organizations: physicians, departments of health, and lay organizations. The discussions were carried on from the standpoint of each group of organizations.

The control of tuberculosis was the principal subject discussed, but the subject of diphtheria, child welfare, and school health work were also on the program. These subjects were treated by experts who are well known throughout the Nation. Three sessions were held on each of the days, and the luncheon hour was utilized for some of the most interesting of the addresses.

It is impossible for this JOURNAL to record all the addresses and discussions, or even to report all those which have a medical bearing. Four addresses have therefore been chosen because the speakers, Dr. Allen K. Krause, Dr. Lawrason Brown, Dr. E. R. Baldwin, and Dr. David R. Lyman discussed medical points which are of direct interest to every physican who practices medicine in New York State. These addresses are printed on pages 391 to 402 of this JOURNAL.

THE DAILY PRESS

THE VICTOR IN EVOLUTION

The restricted department called "More Truth Than Poetry," conducted in the New York *Herald Tribune* by James L. Montague, is always truthful, and its author clothes dry scientific facts in interesting language with rhyme and rhythm. It would seem that the following poem from the *Herald Tribune* of March 23 sets forth evolution in a way that would meet with universal approval, even in Tennessee.

"I do not wonder, little bug
Upon yon cockleburr,
That you regard me with a smug
And arrogant hauteur;
Your attitude of chill disdain,
Your grim, unsmiling face—
Though supercilious and vain—
Denote a conquering race.

"Thus man, no doubt, back in the days
Of dim and dusty yore,
Regarded with a cold, stern gaze
The giant dinosaur—
Which brute, despite his size and strength,
And all his mighty kind
Were driven from the earth at length—
While man remained behind;

"Remained behind, and brought to heel
The jungle's strong and great.
He bade the titan Jumbo kneel
To bear his puny weight,
And banished to their distant lairs
In forest or morass,
The lions, hippopotami and bears,
Which soon, in turn, shall pass.

"So, bug, no wonder that you leer
So gloatingly at me,
For men shall shortly disappear,
The while the ant, the bee,
The jigger and the mite shall whizz
And flutter æons long,
For evolution's battle is
Not ever to the strong."

TEA DRINKING IN TUNIS

The newspapers of March 31 carried a story of the evil effects of tea drinking on the inhabitants of Tunis told by a Tunisian doctor who was lecturing in Paris. Tea was introduced into Tunis during the World War, and now the annual consumption averages over one pound per person. The New York *Times,* discussing the report editorially, says:

"The victims gather around a teapot at the cocktail hour and keep the kettle boiling all night long. No sleep and no dinner for them as long as the tea holds out. They go home in the morning in a state described as general debility."

The editorial writer is at a loss to explain the evil effects of the tea: "Many other people having free access to bountiful supplies of tea do not get drunk on it. They can take it or leave it alone. Either the tea of Tunis is a special brand with something in it, or the inhabitants are peculiarly susceptible to the drug in the beverage."

It would not seem to be necessary to ascribe the bad effects of the tea to the tea itself, or to a drug added to it, or to a peculiar sensitiveness of the people to tea. A fad of social tea drinking seems to have arisen suddenly, and to have taken such a hold on the Tunisians that they sit at tea parties all night long. Probably if the report of the Tunis doctor were at hand, it would ascribe the general debility to the exhaustion following all-night parties, rather than to an extraordinary effect of the tea itself.

TOOLS TO CATCH MURDERERS

A doctor is one of the first persons to be called after a murder and on his actions rests much of the responsibility for the discovery and presentation of legal evidence regarding the murderer. What tools form the standard equipment in the investigation of a murder? Doctors will be interested in the answer given in the New York *Times* of March 22.

"Arthur Woods tells in his book how the tools used by the New York police in murder cases are kept packed in a bag, ready at all times to be taken to the scene of the crime. Here is the list:

Fingerprint outfit
Searchlight
Steel tape measure
Sealing wax
Small box of tools
Screwdriver
Stenographer's notebook
Rubber gloves
Bottle of antiseptic wash
Soap and towel
Paper
Envelope
Twine
Tags
Saw
File
Pincers
Scissors
Jimmy

"A stenographer and a photographer are likewise always on duty to accompany the detectives."

PANICS

Unreasoning fear seizing upon a mass of humanity is seen at its worst in a theatre. When a fire breaks out, for example, the fear of being unable to escape leads everybody to rush for the exits at once and to crowd into a few seconds actions which could be done safely in five minutes, for it is hardly likely that any calamity, much less a fire, could overwhelm an audience within five minutes. Fortunately New York City people are accustomed to being pushed and crowded and jammed twice daily on the subways, and so they are somewhat immunized against panics in theatres.

The teachers in public schools of New York state are required to train their pupils to leave the building in a rapid, orderly way in case of a fire. It is entirely reasonable to require the managers of theatres to train their actors and attendants to manage an audience that is threatened with panic.

The New York *Times* of March 16 describes the effective means adopted by the Gayety Burlesque Theatre of Brooklyn to avert a panic in its audience, and used the following headlines: "Wise-cracks calm audience in fire. 1200 viewing Gayety Burlesque in Brooklyn orderly as flames start in gallery. Go out choking, chuckling. Property man and actor get into action as women show signs of fright. Damage is slight."

When some women in the audience showed signs of fright (just as probably they were men) "Dick Foster, the property man, a plump-faced person in shirt sleeves, with a cap cocked on one side of his head, walked out before the curtain and 'wise-cracked' them back to calmness.

"'Take your time,' he shouted, smiling amiably. 'We're here and we're not worrying. Save your seat checks. This is only a rainy day. Rain checks will be issued by the firemen out in front.' Then, turning to Gilmore, he said in a loud aside, 'Brother, our show's so hot it set the theatre afire.'

"The audience thought this an excellent joke and strolled out choking and chuckling."

BIRTH RATES

Declining birth rates and stationary number of population are subjects of frequent discussions and various interpretations. The New York *Times* of March 12 discusses these topics in an editorial, basing its facts on an interview with Professor W. S. Thompson of the Scripps Foundation. It says: "Contrary to the general impression, the birth rate in this country is higher than in the European countries." The editorial points out that the professor means "some" European countries, especially France, England and Germany. The editorial continues:

"Professor Thompson is right in assuming that on the subject of population increase many erroneous impressions are afloat. The most celebrated instance is that of the alleged phenomenally low French birth rate. But of recent years the truth has spread that France's stationary population is not due to too few births, but to altogether too many infant deaths.

"We have popular fallacies at home. There is the standard complaint that old-stock Americans are refusing the responsibilities of parentage, and so in the course of the years are bound to be swamped by the prolific immigrant stock. But while it is true that the birth rate among native Americans of long descent is lower than among immigrants, there is evidence to show that the native-born children of immigrants have a lower marriage rate and birth rate than the 'old' Americans. This is explained by the sharp swerve away from European standards which is observed among the children of immigrants in so many spheres of the individual and social life. This consideration was presumably in Professor Thompson's mind."

Large families in the past have usually been associated with a high infant mortality rate, of which one indication is a row of small headstones in the family burying grounds of a century ago. One striking example was that of the graves of a well-to-do father and mother at the end of a row of five small stones of their children aged from two to eight years. The modern ideal is healthier, rather than more, children.

THE PENALTY OF RENEWED YOUTH

The New York *Herald Tribune* of February 26 has the following news item which sets forth a new complication of a Voronoff operation:

"A dispatch from Budapest to Le Soir says that a large Hungarian insurance company has ceased to pay life-time annuities to a prominent client on the ground that he broke the contract by submitting to a Voronoff monkey gland operation.

"The company charged that this was an indication of bad faith, releasing it from every obligation. The case will be decided in court."

OUR NEIGHBORS

PUBLIC RELATIONS COMMITTEE OF THE MAINE MEDICAL ASSOCIATION

The appointment of a public relations committee by the Medical Society of the State of New York was anticipated by the appointment of a similar committee by the Maine Medical Association, whose *Journal* for March records the minutes of a recent meeting of the committee. The committee discussed medical bills rendered to insurance companies, and immunizations against diphtheria, and advocated that the choice of physicians to conduct public clinics should be with the county medical societies. The committee also adopted a detailed set of rules under which public health nurses should deal with the people in medical problems.

The same issue of the *Journal* discusses the discharge of civic duties by doctors in an editorial from which the following quotations are taken:

"Maine was the first state in the Union to bring about a definite alignment in which the organized medical profession, as represented by the state medical society, is brought into actual working connection with the volunteer health forces, as represented in Maine by the Maine Public Health Association, and the official agency represented by the State Department of Health.

"Maine physicians are coming to realize the important fact that the medical policies of the Maine Public Health Association are sanely and constructively supervised by our State Medical Association Committee. Furthermore, the medical profession is well represented on the Executive Committee of the Public Health Association.

"The State Health Commissioner is a member of the Maine Medical Association's Committee on Public Relations, and this committee also includes medical members of the Public Health Association's Executive Committee.

"With the development of better and better team work between the three major groups interested in health work—the State Department of Health, charged with the enforcement of health laws and ordinances, the operation of state laboratories, the compilation of vital statistics, etc., the scientific group, as represented by the Maine Medical Association, and the volunteer or lay group engaged in educational, organization and health promotion activities, as represented by the Maine Public Health Association—Maine is being cited as a leader by forward-thinking medical men, by health educators and health administrators throughout the United States."

HOW TO MAKE A PERIODIC HEALTH EXAMINATION

The March number of the *Journal of the Iowa State Medical Society* reports a demonstration of how to make a periodic health examination, given by Dr. C. A. Elliott, Professor of internal medicine in the Northwestern University Medical School, Chicago, before the Iowa State Medical Society on May 13, 1926. The patient was a physician who submitted to an examination whose results are reported as follows:

"This applicant, one of your own members who has consented to present himself for such an examination, has filled out the blank that has been proposed. There is nothing of particular interest here: 'Age forty, a physician, conditions of work are satisfactory.' We as physicians should recognize the fact that a great deal can be done towards adapting the lives of people toward less exacting conditions. Ofttimes it is a simple thing to do, a matter of a change of occupation, exercise, etc. There has been no serious illness in the history of this case. He gets a moderate amount of exercise. His weight is 139 pounds, and it is stated here that his usual weight is 145 pounds, so that there has been an apparent loss of weight. This is a matter which should receive your attention. His height is five feet ten inches, weight 139, and on consulting the table here one finds that his weight should be in the neighborhood of 160 pounds. Therefore he is definitely underweight, perhaps 15 pounds. Blood-pressure, s. 117, d. 84.

"In the privacy of your own office this examination should be made with the applicant stripped. There are many points that go unobserved under other conditions; for instance, hernia, flatfoot, or a poor attitude in standing. It would be my desire to have an examining table, there should be charts, scales and blood-pressure apparatus. You should have perhaps nose and throat instruments in order that you may look in the throat, but on the whole the apparatus that is needed is simply that which each general practitioner has in his own office.

"We note in this case that the subject is tall and rather thin, that his hands are cold and

(*Continued on page* 440—*Adv. xiv*)

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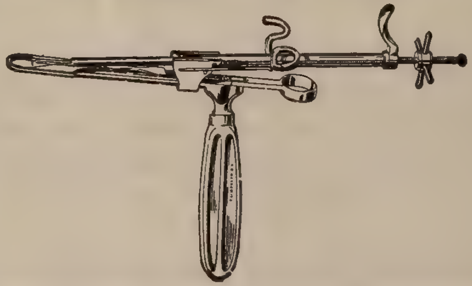

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(*Continued from page* 438)

clammy. I think the doctor is perhaps more excited than I am at being here; if not, something is driving him to some vasomotor change as represented by cold, clammy, sweaty hands, a situation we see so frequently among people we recognize as having an effort syndrome. His general appearance is quite normal. A definite goiter is present, there is a mass that is quite large on the right side; he states that he has noted there has been some enlargement present for six years.

"In these examinations one should, of course, search for possible sources of infection. We note that his throat is quite normal, that the tonsils are definitely present and seem quite normal. In the case of the teeth, there is a possible source of infection there which should be excluded by proper X-ray examination. One feels that the cervical glands are just palpable, the axillary glands are palpable.

"Without going into great detail, but reviewing the findings in a suggestive way, here is a man who gives us a lead. Here is one point we pick up on examination: Although he complains of nothing, being a healthy individual carrying on his occupation, yet we see that he has a goiter, we see that he has much filling in the teeth, we see that his hands are clammy, cold, sweaty. Therefore we go ahead with those findings in mind and search for a possible cause of these manifestations. In examining the heart, its left border is best determined by palpation, and we are very much interested, in view of what has been found here, in accurately determining the position of the apex beat. On palpation we can feel that it is well within the normal range. On auscultation one hears normal heart tones. The blood-pressure is low, as has been indicated.

"A general examination of this kind should be conducted to the final conclusion. The lungs and abdomen should be gone over carefully, the reflexes should be noted. It is an excellent thing to give such patients a functional heart test; the hopping test is as good as any, and certainly far better than any mechanical contrivance that we know of in giving us an accurate idea of cardiac efficiency.

"After such an examination as that, our findings should be written up, the positive findings only to be written on the blank. Here are the things we note in this subject: He has an adenomatous goiter, his teeth are possibly a source of infection, he has lost weight. We note that he shows some vasomotor disturbances as though he was to some extent being driven. Then the obvious thing to do is to suggest that something be done about it, that as a matter of record if for no other reason the metabolic rate should be taken, X-rays of the teeth are in order,

(*Continued on page* 441—*Adv. xv*)

possibly it might be well to have a good nose and throat man go over him to be sure to eliminate infection in that regard. In such a case as this you would debate the advisability of some treatment. Here is a man, presumably healthy, he has no complaint. You find that he has disability to some extent, and if there is anything to be done about it you ought to see that he is put on the right road; and if nothing can be done about it a record at least should be kept for future reference."

POLYCYTHEMIA

Polycythemia or Vacquez's disease, is the subject of a paper in the March *Journal* of the Missouri State Medical Association, by Dr. Oliver Abel, Jr., of St. Louis, from which the following abstracts are taken:

"The condition is characterized by polycythemia, an increased blood volume and a large spleen, the etiology of which is unknown. The treatment at present offers nothing in view of a permanent cure; although roentgen ray, radium, benzol and phenylhydrazin hydrochloride have given temporary relief in some cases.

"Four of the cases that we are to present were treated with phenylhydrazin hydrocloride, Phenylhydrazin was first used to produce secondary anemia in animals; after which Eppinger suggested its use in the treatment of polycythemia vera.

"Brown and Giffin report seven cases treated with phenylhydrazin in which the clinical improvement was satisfactory in all but one case; in the latter marked hypertension persisted. A gradual increase in the red blood cells and volume of blood necessitated a second course of treatment in from three to six months after the first. The drug was given in doses of 0.1 gms. three times a day, the total given varied from 3.4 gms. to 7.6 gms. It was found wise to discontinue the use of the drug when the red blood cells dropped to 4,500,000; it is estimated the destruction of blood will continue for approximately a week longer. They state that phenylhydrazin causes a more consistent improvement in the symptoms and a more constant reduction in the blood volume than either radiotherapy or venesection.

"Our results following the administration of phenylhydrazin were rather disappointing. It is possible to produce a reduction in the number of red blood cells and in the percentage of hemoglobin. However, it is difficult to regulate the dosage. In two of our cases severe anemia was produced. The patient as a rule feels better when not taking the drug. Its effect is only temporary in character and it certainly cannot

(*Continued on page 442—Adv. xvi*)

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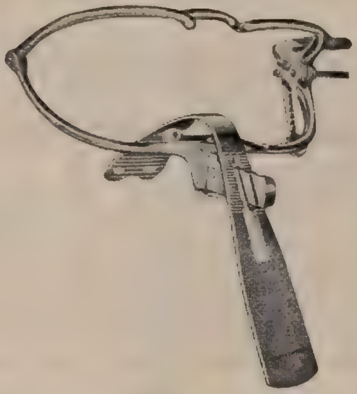

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(*Continued from page* 441)

be expected to influence the course of the disease. As pointed out by Giffin, the damage to the vascular system in polycythemia is constant and progressive in character. The association of duodenal ulcer and polycythemia vera in two of our cases may be considered coincidental in character. However, the disturbance in the blood circulation in the duodenum might possibly be an etiological factor in the production of ulcer.

"Wm. J. Mayo removed the spleen in one case of polycythemia vera. The case was apparently in its terminal stages and the operation was performed because of the frequent severe hemorrhages. The patient made a remarkable recovery and has remained well for four and one half years following the operation.

"The part that the spleen plays in the etiology of polycythemia vera is not known. However, when we consider the progressive character and the eventually fatal outcome of the disease it would appear logical that splenectomy should be given a trial in a series of cases."

EARLY DIAGNOSIS OF CANCER OF THE STOMACH

The February issue of the *Ohio State Medical Journal* contains an article on the early diagnosis of cancer of the stomach by Dr. Jonathan Forman, of Columbus. The article is interesting because of its arrangement in the form of five rules, with brief comments.—*Editor's note.*

"Rule I. Every patient past middle life who having never had any stomach trouble whatever suddenly develops a dyspepsia should at once be considered a case of gastric cancer until proved otherwise.

"One of the first symptoms of this are acid eructations coming on some little time after the meal. Sour eructations in late adult life should never be ascribed to hyperacidity until definitely proved so by direct investigation. Then there develops an epigastric discomfort after meals. The appetite is diminished early and especially is there developed a distaste for meats. The practical thing here is not whether cancers develop from gastric ulcers but the fact that from 80 to 90 per cent. of gastric cancers have been found to arise de novo in healthy persons.

"Rule II. Every patient past middle life who develops a sudden loss of strength for no apparent reason, or because of a slight gastro-enteric disturbance, should be considered a case of gastric cancer until proved otherwise, especially if there follows a progressive anemia without other cause.

"Given dyspepsia in a heretofore well person with asthenia and developing anemia we should become very suspicious of gastric carcinoma, and

(*Continued on page 443—adv. xvii*)

(*Continued from page* 442)

we should proceed to use the stomach tube at once.

"Rule III. The stools of every suspected patient should be examined for occult blood.

"This is a simple inexpensive test which requires but little time and may prove of great value. If positive, it is ominous, provided of course that there is no bleeding in mouth or rectum. As a rule, the bleeding of cancer of the stomach is relatively small in amount but persistent and unaffected by rest and non-irritating diet. The bleeding of ulcer is more marked but usually disappears under appropriate treatment.

"Rule IV. Every patient in whom is demonstrated the absence of free hydrochloric acid and the presence of a definite amount of lactic acid in the test meal is a case of gastric cancer.

"The technique of the use of the stomach tube is simple. The small tubes now employed are not objectionable to the patient. I, personally, have never seen a case of gastric cancer in which there was not an absence of hydrochloric acid and the presence of an appreciable amount of lactic acid in the test meal.

"Rule V. Every patient in whom there is a suspicion of gastric cancer should be X-rayed but very little weight should be attached in these cases to a negative report.

"Most of the criteria, upon which an X-ray diagnosis of gastric cancer is made are late manifestations and are therefore not going to help us much in the early recognition of the trouble. It so often furnishes corroborative evidence of worth that it should be employed in all cases of this kind. It is also of value in localizing and in ruling in-or-out the presence of pathology in the adjacent viscera.

"When the history and other clinical facts agree, a presumptive diagnosis is to be made and an immediate exploratory laparotomy urged. This advice is to be given even though the roentgenologic report is negative."

Summary: We have presented dogmatically the available data presented early by more than 85 per cent of patients with gastric cancer. The use of these facts will make it possible to get a much more respectable percentage of patients to the surgeon in such a stage that something more satisfactory can be offered than the usual palliative gastro-enterostomy."

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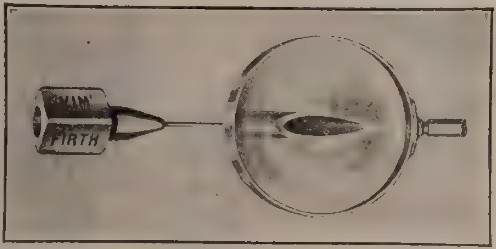

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JUSTIFIABLE ABORTION

The *London Lancet* for January 20, contains an article by Lord Reddell on the ethical, legal and medical aspects of abortion; one paragraph discusses a phase of the problem from a standpoint which will be especially interesting to all general practitioners.

The paragraph gives a brief description of four cases, and then asks the question: "What should the practitioner do under such circumstances?" The author answers the question as follows:

"We know, of course, that he should invariably get the benefit of a second opinion, and we know that in modern practice it is usual to secure such an opinion from a specialist in the disease affecting the pregnancy. It is for the specialist to say whether the woman can safely be allowed to go to full time. Consequently in the four typical cases quoted, it would seem to be the duty of the doctor to call in a general physician or a mental specialist, as may be most appropriate. If he advises in writing that the continuation of the pregnancy is likely to kill the woman, ruin her health, or drive her into a mental home, then in my opinion, *quantum valeat,* as the lawyers say, the procuring of a miscarriage is not only justifiable but a duty. Cases in which the patient misrepresents or exaggerates her condition with the object of persuading the doctor to terminate the pregnancy are not uncommon. Therefore extreme care is necessary when making a diagnosis.

"It would be futile to disregard the fact that some practitioners are ready to seize on any medical or surgical reason to justify an abortion when desired by the patient to avoid an unwanted child. It is useless to discuss such conduct. The offence cannot readily be detected in the case of a married woman attended by two medical men. Nevertheless it is a risky game. When required to deal with a pregnant unmarried woman, the practitioner is faced with problems of exceptional difficulty and danger. If he procures an abortion his motives are open to question, and if he fails to do what is necessary to preserve the life or health of his patient he is liable to grave moral condemnation and may possibly incur serious legal consequences. When faced with such a problem, the practitioner should always remember that secrecy is the badge of fraud. If he acts openly, and if he is supported by another sound opinion, he has little to fear if his motives are right. It is not a crime for an unmarried woman to become pregnant, and her medical adviser has no right to condemn her to death or to serious morbidity because she happens to be unmarried."

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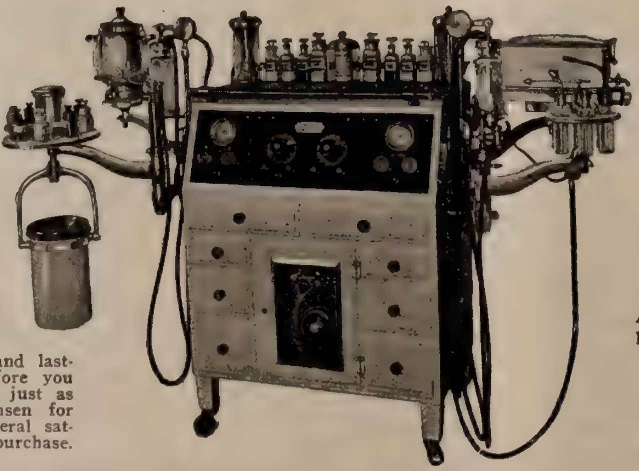

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ONE CYSTS IN CHILDREN

Diseases of bones are receiving ore and more consideration, and re recognized by general practioners with increasing frequency. *he Long Island Medical Journal* or March contains the following oncise article on the subject from e pen of Dr. Harold K. Bell of Brooklyn.

This article and the one on cleft alate reprinted on page 447 were wo numbers of the program of he Associated Physicians of Long sland that were described in an ditorial on page 190 of the Febuary 15 issue of this JOURNAL. The program was unique in that ighteen papers were presented within ninety minutes, as the result of careful preparation and planning.—EDITOR'S note.

"The pathogenesis underlying the production of bone cysts is still a debatable question, though the majority of pathologists are now agreed that is a low grade type of chronic inflammation termed osteitis fibrosa or fibrous osteitis. Of 89 cases collected by Bloodgood, 69 were considered definitely related to fibrous osteitis.

"Bone cysts occur usually in the medullary canal of long bones, particularly the humerus, femur and tibia, and seldom are found in short or flat bones. A bone cyst enlarges slowly, and as it grows it expands the shaft of the bone and encroaches upon and thins out the cortex, meanwhile replacing the medullar substance with connective tissue.

"Bone cysts occur particularly in children and frequently produce no symptoms. Subjective symptoms are so rare the condition is generally unrecognized until fracture occurs. With the expansion of the cyst, the cortex is thinned out to tissue-paper thickness, often permitting a very slight injury to produce the fracture. So trivial a force produces this pathological fracture and the accompanying symptoms are so mild, that fracture of the bone is often not suspected. X-ray makes the diagnosis definite. The shaft of the bone is enlarged, the cortex thinned; the medulla, instead of showing a relatively dark shadow, is exceedingly clear and often shows trabeculae in the wall of the cyst. The line of fracture shows distinctly.

"But X-ray interpretation is not entirely free from error. For a somewhat similar picture may be presented by many other medullary growths possessed of a bony capsule and producing osseous absorption. Many bone cysts are produced as the result of softening of solid neoplasms such myeloma, giant-cell sarcoma, chondroma, myxoma, etc. Cysts form occasionally from softening in osteitis deformans and in osteomalacia.

"But the age of the patient divides medullary (or central) tumors into benign or malignant. Bloodgood says that if the patient is under 15 years of age and the central tumor is in the shaft, one may be quite certain it is a bone cyst. The myeloma is very ununusual in children, and myeloma is generally multiple.

"In the matter of treatment, bone cysts frequently heal spontaneously; and, after fracture, healing and ossification are often rapid. Operative treatment is not to be considered in such cases. But if healing of the fracture and ossification of the rarified bone do not ensue, open operation is indicated. This consists of incision and thorough curettement of the cyst contents and its connective tissue lining; and replacement within the osseous cavity of bone-chips or a transplant, and closure without drainage. The case is further treated as a simple fracture; needless to say, union is usually much slower than in the ordinary fracture."

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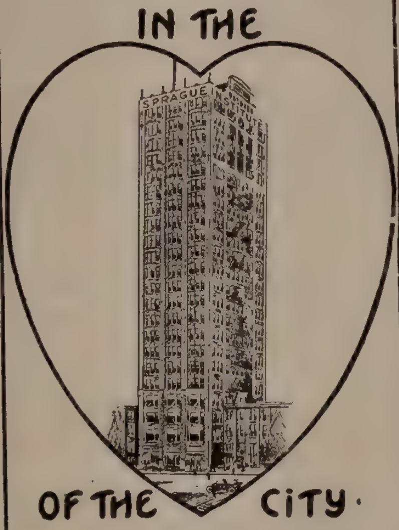

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HARE LIP AND CLEFT PALATE

What to do in hare lip and cleft palate is told in the following article by Dr. Roger Durham of Brooklyn, published in the March issue of the *Long Island Medical Journal.*—EDITOR'S note.

"Hare lip represents a failure in fusion of the lip, and there may result a unilateral or a bilateral hare lip, an incomplete union involving only part of the lip, or a complete failure with the hiatus extending into the nares. The extent of failure of union of the maxillary processes, or of the hard or soft palate, results in a degree of separation of the anterior portion of the jaw, varying in different babies, or in an hiatus of the soft or hard palate. There may be present merely a notch at the alveolar border that represents the slightest degree of failure of fusion, or on the other hand, extreme degrees of separation of bony or soft parts may appear that are impossible of repair.

"The condition is recognized at birth, and the question that immediately arises is what is to be done to cure the deformity, and when is the time to do it. The parents must be informed of the serious nature of the operative relief, of the technical difficulties of the various steps, and of the liklihood of not obtaining complete success at each operation, because of infection, poor healing qualities of a none too vigorous child, and the location of the field of operation. The cure is to be secured only by a series of operations conducted over a period of months, and the number of steps will depend upon the success or failure of the preceding step, and the time chosen for the steps must be determined in part by the health and condition of the little patient.

"For the average fairly normal healthy child the technique and successive steps are those recommended by Thompson (James E. Thompson, Galveston, Texas) and adapted to my own experience.

"First. At two weeks of age repair the superior maxillary processes.

"Second. At the same time repair the lip if the condition of the child permits. If the child can not stand the added operation at the time, operate upon the hare lip as soon as possible after recovery from the first operation.

"Third. Repair the hard palate by the eighth month or before the sixteenth month.

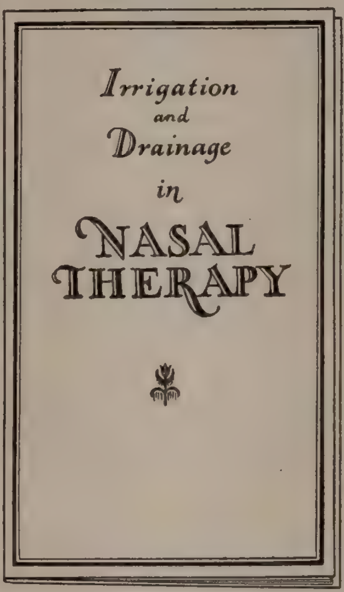
"Four. Repair the soft palate six or eight weeks after the operation on the hard palate, or if possible by the eighteenth month.

"The cleft palate interferes with the proper nutrition of the child because of the mechanical impossibilities of nursing at the breast, and the difficulty of swallowing, and the frequent regurgitation of food, and the resulting malnutrition. Therefore, the closure should be done early.

"The superior maxillae are soft, pliable, and easily moulded at two weeks, and the dangers of the operation are less than later in life; therefore, operate early.

"The repair of the lip helps approximate and mould the upper jaw after suture, and it also saves the distracted parents the embarrassment and need of apologies consequent upon this horrible deformity. Therefore, operate early.

"The repair of the palate should be completed by the time the infant is learning to speak, so that the speech may be more nearly perfect. This operation is usually done in two steps. When done at one sitting there is risk of nonunion of the whole, whereas even a small degree of union of the hard palate makes the chance of success easier when the soft palate is attempted."



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THE OFFICIAL YEAR

THE publication of the annual reports of the officers and committees of the Medical Society of the State of New York in this issue affords the occasion for editorial remarks on the progress of the Society during the official year which began at the annual meeting of 1926.

Progress is measured by means of ideal standards of perfection which cease to be ideals as soon as they are attained. The best progress is made when the immediate objectives are not too far beyond easy grasp. Progress is the most sure and enduring when it is a growth, symmetrical and solid, unfolding from a pre-existing germ.

The ideals and standards of the Medical Society of the State of New York have undergone suprisingly few changes during the past quarter century. They have been stated over and over again by wise medical leaders as those who have read the "Looking Backward" editorials in this Journal may have discovered. Indeed one observer who has delved into the printed records of the Society has said that the same suggestions for improvements in the activities of the society are repeated every five years. Now this does not mean that the Society has failed in its activities. It means rather that diagnoses regarding the health and vigor of the medical profession have always been correct and that the leaders have always been in agreement regarding the fundamental treatments and management of the conditions. The responses to the suggestions of the medical leaders have not been waves of enthusiasm, which have curled in spectacular breakers upon the shore of progress and receded again in a wasteful undertow. They have rather been a rising tide which has covered the dull flats of ignorance and complacency with shining inspiration and activity.

The very nature of the membership of the Medical Society of the State of New York does not allow progress to be sudden and spectacular. The Society is composed of ten thousand doctors whose training and daily work make them individualistic, yet ethical and progressive beyond the standards of any other profession. They are grouped in county societies, and these in turn constitute the State Society. The essence of the State Society lies not in itself, but in the county societies and their individual members. New activities must represent the desires of the great body of individual members. Progress in the State Society therefore depends upon the education of the individual doctors rather than upon the announcement of new plans by a few officers. The reiteration of the same ideals and plans by the leaders year after year has produced a steady growth in the lusty body of the medical profession which is ages old and yet is endowed with perennial youth. Medical leaders may come and go, and the tenure of office is measured by single years; but the great body of the medical profession changes its identity only once in a generation, for the majority of its members practice their calling over a quarter century or more.

The great item of medical progress of the Medical Society of the State of New York during the past year has been the development of practical means by which the medical profession may discharge its duty to the community in distinction from the individual patient. It has taken concrete form in ways and means of practicing civic medicine in distinction from private practice. Far-seeing leaders have for years been reminding family physicians of their broader duty to the community, and of the necessity that they engage in public health work, or else see the rise of a new group of endowed or salaried physicians who would displace the family doctors in the estimation of the public. Physicians in private practice have always been conscientious in meeting their civic duties, which at first were almost purely charitable, but are now largely humanitarian. Physicians have been jealous of their prerogatives as qualified healers of the sick, and of their duty to justify the trust of the people in their medical skill and their willingness to apply it to all the suffering. The difficulty in the way of providing that service has been the impossibility that those who lacked the financial and mental means could carry out the advice of the doctors. Physicians have always been willing to give their medical services freely, but they could not be expected to spend hours in persuading people to live hygienic lives, to submit to corrective operations for conditions which were not at once disabling, and in general to make use of advice for which they saw no immediate need. The unwillingness of physicians to play the part of the economist, the public official, and the social worker, led many leaders in those fields to assert that doctors were not interested in preventive medicine, and to threaten to create a new class of medical men who would engage in that line of practice exclusively. The reply of the physicians has always been that they were willing and anxious to supply the medical services and advice to all who needed it, if the other groups of the community—the financiers, the office holders and the philanthropists—would provide the extra-medical services which were also essential. The past decade or two has seen the rise of hospitals, public health nursing organizations, child welfare societies, and other health organizations, all of which depended primarily on the practice of medicine by qualified physicians. The development of practical means of coordinating all these agencies—professional, official and philanthropic—has been of slow growth. Henry James speaking of art has said that it takes a long history to make a tradition, a long tradition to create a taste, and a long taste to make art. This statement is equally true in the development of public health service and preventive medicine. Doctors on the one hand, and community workers on the other, have carried on attempts at tentative solutions of the problems with varying degrees of cooperation and success, until in the course of a decade or two their aspirations, their partial success, and their failures developed into understanding of the practical methods of work and of the recognition of the peculiar fields of activities of the various groups.

The outstanding original accomplishments of the Medical Society of the State of New York, during the past year or two has been the recognition of practical means and methods by which all health organizations can work together without intruding upon one another's peculiar fields. Those who attended the District Branch meetings last fall were impressed by the reports of the practice of public health and civic medicine by a sufficient number of county medical societies to assure the success of the newer methods of the practice of preventive medicine. The final step in the promotion of this practice has been the formation of the committee on Public Relations which is coordinating the activities of all the various agencies to the satisfaction of all the groups—the public, the physicians and the non-medical organizations—with physicians as the leaders and authoritative advisors. This committee is beginning a work whose result in preventive medicine will be similar to that in the field of hospital establishment and administration, in which a happy coordination between all groups has been recognized for a decade. The happy birth of the new methods in preventive medicine has been accomplished only after a long period of pain and travail, which now seems to be at an end. The ripening of fruits of the oft-repeated efforts of leaders in the medical societies in the State has been possible only within the last year or two. But at the present time the medical profession of New York State may properly claim the honor of being the first to present a practical solution of the problem of the practice of preventive medicine.

Two activities of the State Medical Society during the past year or two have contributed to the solution of the problem of the practice of preventive medicine. The first has been the development of the system of graduate instruction under the leadership of the Committee on Public Health and Medical Education. Its lecture courses, its clinics and its demonstrations, conducted through the county societies, have stimulated the members to renewed study of all problems connected with the practice of medicine in its broadest sense. They have shown that physicians welcome instruction along the newer lines of practice when the means of study are made available to them.

The second activity that has met with cordial response from the physicians has been the frequent visits of the officers of the State Society to the county medical societies, and their attendance at the meetings of allied organizations engaged in public health.

Practically every issue of this Journal during the past year has carried accounts of formal visits of the officers to important meetings of county medical societies and District Branches and health societies while unrecorded visits have been too numerous to mention. To be an officer of the Medical Society of the State of New York or a member of an important committee during the past year has meant a far greater expenditure of time and effort than most members realize. The most encouraging evidence of progress during the past year has been the ready response of the members to visits of their leaders in the State Society. Another encouraging sign is that the officers and committeemen have continued their interest after their terms of office have expired, and even taken on new responsibilities which carry much work and little honor.

The members of the Medical Society of the State of New York will profit by a careful reading of the annual reports of their officers and committees which are printed in this issue of the Journal, in accordance with the resolution passed by the last House of Delegates.

Medical Society of the State of New York

ANNUAL REPORTS

1926

PRESIDENT'S REPORT

To the House of Delegates:

Gentlemen:

It is my great pleasure to report that during my administration the activities of the Society have continued to multiply in number and increase in complexity.

The Trustees whom you elected at the last annual meeting have organized themselves and undertaken their work with great enthusiasm. If there were any doubt in the minds of any members of the Society prior to the election of the Trustees of the wisdom of such a movement, such doubt will soon be dispelled—if it has not already been—by the great service the Board will render the Society by its character of permanence. Their prime function is to appropriate, with wisdom, such funds as may be necessary for the conduct of the Society. Of course, the Executive Committee continues with the censorship it has always exercised over programs and propositions for the expenditure of monies and the Board of Trustees will not act upon any propositions except those that have received the approval of the Executive Committee. I recommend, however, that the Board of Trustees should be authorized to provide means for informing itself from time to time concerning the expenditure of funds they have appropriated. The chairman of standing committees and special committees should be asked to report at intervals of about two months, to the Board of Trustees, upon the progress made on their approved plans, with the expenditure of funds allotted to them for that purpose. Such close relationship naturally developed immediately between the Executive Committee and the Board, but such relationship has not yet been developed with the other committees.

District Branches

These organizations — eight in number — usually known as the District Branch Societies, in my opinion should no longer be considered Branches, but known as District Medical Societies. They should be encouraged to broaden the field of their activities and to maintain a more intimate relationship with their component County Societies.

Following the precedent set by my predecessors, I attended the annual meetings of the District Branches. They were unusually well attended this year, I have been told, and I found the programs very stimulating. In addition to scientific papers, each program contained a brief review of the work done by the component County Medical Societies and a paper or two on some local public health problem. These papers, as a rule, occasioned the most general discussion, particularly the ones that described the campaign against diphtheria. It was quite evident that a certain amount of this unusual enthusiasm was due to the pains that had been taken in preparing the program.

Early in my administration the Executive Committee directed the Executive Officer to visit the Presidents of the District Branches with the idea of assisting them in developing their Societies. The President of each District Branch Society arranged a meeting of his executive officers and the presidents of the component County Societies. The conferences were all well attended and, in addition to outlining the program for the annual meeting, they discussed very freely the medical activities of their district. Guided by the reports of the value of these conferences, I recommend that they be continued and that the Presidents of the District Societies be encouraged to confer frequently with representatives of their County Societies regarding the welfare of the physician and the medical needs of the public. The organization of county health units, an activity which just now is uppermost in the minds of state officials and voluntary public health agencies, should be carefully considered and thoroughly discussed by each District president and his associates. The programs for the annual meeting of the District Societies should be made interesting and attractive. Men of outstanding ability should be invited to read papers on subjects that would have a particular interest for the physicians of that district. In the past there has been some difficulty with regard to the expense of such meeting, inasmuch as there are no dues assessed by the District Society. There was an amendment to the Constitution introduced at the last meeting of the House of Delegates, which would permit the Board of Trustees to appropriate more than $100.00, the amount permitted at present, to the District Society to meet the expenses of the annual meeting. I recommend that this amendment be carefully considered and adopted.

I have been informed that the Medical Association of Central and Western New York, a scientific organization that for the last fifty-one years had been very active, decided this last year to discontinue its activities because of the high quality of meeting that the district Societies have been conducting. This is both a compliment and a challenge to the District Societies of that section of the state.

County Societies

I have been greatly gratified in my visits to the County Societies to realize how thoroughly they appreciate the strategical position which they occupy in the medical organization of this state. It has been my pleasure to visit with fourteen County Societies at a regular meeting during this last year. In every instance I found a lively interest expressed by all in the welfare and function of the Society. We have often heard it said that the excellence of a County Society depends upon the efficiency of its secretary. The truth of this has been demonstrated so often that I have no inclination whatever to dispute it, but I should like to add that, from my own observation, there are other factors in the County Society that may contribute greatly to its success. Some presidents, although their terms of office have been but one year, have been able to stimulate their Societies greatly in that time. In other instances, it has been the chairman of certain committees who have taken a leading role in the activities of the Society for a period of time. I have in mind particularly the chairman of certain committees on post-graduate instruction and public health.

A County Medical Society, like any other organization, thrives in proportion as it realizes that it has a definite purpose and responsibility which it may achieve and assume. No other local organization of medical men should be permitted to displace the County Society. It has a function because of its integrated relation to the State Society, which it cannot delegate to any other body. Other organizations may promote equally as effectively scientific study and sociability, but only the County Society can officially represent the physicians in their dealings with public health organizations or the boards of supervisors or the House of Delegates of the State Society. Therefore, I feel very strongly that the officers of the County Societies should make every effort to have meetings well attended and opportunity afforded for the discussion of all activities that arise in the county which would have an effect upon the practice of resident physicians.

Post-Graduate Instruction

We have not completed two years of special activity in programs of post-graduate instruction, and we have every reason to feel encouraged with the results that have been obtained. A large number of the Societies have availed themselves of the offer of the Committee on Public Health and Medical Education to assist them in conducting courses of lectures on such subjects as they may select, the committee providing the lecturers without expense to the local Society.

My own County Society conducted a course of lectures on heart disease, and I believe that the Society engaged in no more profitable undertaking in the last decade. I hope that this may become a more or less permanent activity of the State Society. Physicians now, above all other professional men, feel the necessity of keeping themselves abreast of the times, because of the rapidity with which scientific discoveries are being made, some of which have had almost revolutionary effect upon the practice of medicine. There may not be the same demand for facilities for post-graduate instruction from all sections of the state. Those men who live in the vicinity of medical schools or large hospitals have facilities for keeping themselves abreast of the time, but a large number of members of our Society find it difficult, or almost impossible, to leave their practices to take courses in medical schools or clinics. Therefore, the opportunity afforded by the State Society for them to have discussed in their own County Societies the latest advancement in the practice of medicine should be considered a function of the State Society. Efforts should be made to interest medical schools and the larger hospitals in developing themselves as centers for post-graduate instruction of this character.

Medical Practice Act

The amendment to the Medical Practice Act, which was enacted last year, is working out very satisfactorily. The Department of Education has employed five inspectors and the attorney general has appointed one of his deputies to take charge of the enforcement of the law. Together these agents have already brought to prosecution a number of cases. This vigorous enforcement of the law is having a noticeable effect upon the practice of chiropractic. Many have forsaken their practices in New York State and gone to other business or to other states.

The legislative committee appointed to investigate chiropractic held several hearings, where chiropractors and physicians were invited to give such information as they chose concerning chiropractic and the desirability of licensing those who would practice it in this state. Their report at the end of the legislative season was very brief and unsatisfactory. They confessed that the time they had taken to investigate the matter was entirely too short for them to bring out any worth-while report, and rather than make some statements which they probably would find difficult to defend, they chose to make no recommendations whatsoever.

Our experience with the legislature this year was very satisfying. No obnoxious legislation was enacted and we were successful in having favorable consideration given the public health and workmen's compensation bills in which we were interested and the one measure which we introduced, namely, the nurse registry bill.

PUBLIC RELATIONS COMMITTEE

One of the greatest handicaps that medical men have had in recent years in the promotion of their work in preventive medicine has been a lack of understanding between the medical organizations and the voluntary and state public health organizations. There has always been a feeling—in some sections of the state very strong and well placed—that voluntary agencies and the State Department of Health were combined to promote conditions favorable to the adoption, eventually, of some form of state medicine. This feeling has recently been markedly accentuated by an increasing desire in voluntary agencies and departments of health for the creation of county health units.

It seemed wise to me that some effort should be made to bring order out of the chaos which appeared to exist and, accordingly, I appointed a committee of representative physicians whom I knew to be interested and to have had more or less experience with the experiments in county health unit organization, to compose a Committee on Public Relations, whose function I stated should be to confer with voluntary agencies and representatives of the State Department of Health on the methods now in use or to be employed in the promotion of public health and welfare activities where the practice of medicine was involved, and particularly the newer phase known as preventive medicine. This committee has had five conferences with representatives of one voluntary agency and, as its report will show, it has already accomplished a great deal. The members were surprised to discover that the antagonism which seemed to exist was largely mythical. There was a real desire on the part of the representatives of the other agency to cooperate with physicians and they were quite ready to accept almost every proposition made by our committee with regard to the conduct of public clinics, the care of indigents, and promotion of educational and informational campaigns.

I am so thoroughly convinced of the value of the work that this committee has begun, that I recommend that every County Society appoint a committee to cooperate with a similar committee in the State Society, to be known as the Committee on Public Relations, and that such county committee has, as its function, the development of a close relationship with every agency or organization that is doing work in the field of public health within its jurisdiction, for the purpose of developing harmony in programs of activity. I also recommend that another standing committee, to be known as the Committee on Public Relations, be created, because the work cannot be accomplished, even its first steps, in one year—and problems will continue to arise from time to time as the development of the practice of preventive medicine increases, which will demand consideration and thought for their proper and satisfactory solution.

ANTI-DIPHTHERIA WORK

My predecessor, Dr. Van Etten, appreciated the strategic position the State Medical Society might achieve by taking the leadership in one of the most important preventive medicine programs ever inaugurated; namely, the prevention of diphtheria by immunization of children. He organized a committee of leading physicians and public health workers, including representatives of the State Department of Health, for the purpose of coordinating and harmonizing the efforts of all organizations with the physicians' experience as to how immunization can best be accomplished. He included in this committee the chairman of several of our standing committees. The powerful influence a committee of this kind was bound to have in directing a piece of work so extensive as a state-wide campaign on diphtheria, was equally appreciated by leaders in welfare and public health activities. The State Charities Aid Association, probably the most powerful welfare association in the state, immediately asked Dr. Van Etten, as president of the State Medical Society, to become a member of its executive committee. Upon my entering into office, I, too, was invited to become a member of this executive committee, which invitation I accepted. As a member of this committee, I have found many opportunities to explain the position of the physician with regard to public health activities, not only those connected with the anti-diphtheria campaign, but with other public health activities. The discussions at meetings of this committee inspired me with the idea of organizing a Committee on Public Relations.

To return to a discussion of the work accomplished by the Anti-Diphtheria Committee, Dr. Van Etten's large committee suggested the creation of a smaller working committee, to be composed of one or two representatives of each organization. I have had the opportunity of sitting in with this committee several times during the last year, at its monthly meetings. They have kept in intimate touch with anti-diphtheria work everywhere throughout the state, and, by reviewing the activity in each community, they were able many times to make suggestions to the the local leaders as to how their campaign might be improved.

Through this cooperative committee, the activity of the practicing physician has been more fully appreciated and special efforts were made to assist him; for instance, placards were prepared for physicians' offices. These were distributed in most instances through the County Medical Society. Enormous posters were displayed on bill-boards which, in not a few instances, was definitely stimulated by the County Medical Society. Probably no other public health movement was attended by such a degree of success. There have been fewer cases of diphtheria and fewer deaths from that disease in the State of New York during the last year than in any year since records have been kept. Immunization of children between the ages of birth and ten years is being done in every section of the state by private physicians, school physicians and the health officers. In some instances the work has taken the nature of a campaign in which the lay organizations have taken the lead in stimulating a desire on the part of parents to have their children immunized, and the physicians have cooperated by assisting with certain public clinics. In other places, the physicians have taken the lead and invited the voluntary agencies to assist. In some cases the Medical Societies have taken the initiative and, without much publicity, have urged their members to immunize the children of their families. All of these methods have been more or less effective and which scheme is best, is difficult to determine.

In my opinion, the position of the physician in the practice of preventive medicine is but slightly different from that which he occupies in the practice of curative medicine. A sick individual knows he needs the attention of a physician, and his associates are equally eager that he should be attended by a physician if his affliction is contagious. And when the object is to prevent the appearance of a contagious disease or the development of degenerative diseases, the initiative should again arise with the patient or the public, who should have as lively an interest in maintaining—as they now have in recovering—their health. However, for this condition to prevail, it is necessary that the individual and the public should be thoroughly informed concerning the dangers with which communicable and degenerative diseases threaten them. The physician can take a part in the dissemination of this information, but he should not be asked to undertake such task alone.

The progress the anti-diphtheria campaign is making seems to justify a deduction of this kind. Where the public has taken a lively interest in protecting its children against the inroads of diphtheria, approaching 100 per cent of the children have been immunized; on the contrary, where the public has not been interested, there has been much less demand for immunization, in spite of the activity of the physicians. The ideal condition is that the parents of children should realize the value of immunization and have the same accomplished by their family physician soon after a child reaches the age of six months. The slogan of the Anti-Diphtheria Committee is, "No Diphtheria after 1930." While this will not actually be accomplished, there is no doubt in the minds of all those who have been watching the progress made in the immunization of children but that diphtheria will soon become as rare as typhoid and smallpox are today.

Heart Committee

Public attention has for the last several years been directed to the increasing number of prominent men and women who, in the prime of life, are stricken down by some form of heart disease. Several organizations have made the study of heart disease a part of their function, but it seemed to me that there was an opportunity here for our Medical Society to do a large piece of research. I requested and secured authority from the Council to appoint a committee of eminent heart specialists, for the purpose of making an investigation into the problem of heart disease. That committee, although appointed but a few months ago, has already collected some very valuable material and data. The task is so extensive that it was understood when the committee began, that it could not be expected to complete its work this year. I recommend, therefore, that the committee be authorized to continue the work another year.

American Public Health Association

I was invited to attend the annual meeting of the American Public Health Association in Buffalo last October. This is a powerful organization, with members from every state in the Union and the Dominion of Canada. It is one of the oldest organizations of its kind and one of the most active. It is particularly interested in the promotion of such public health activities as are discovered of value through laboratory research or experimental demonstration. Many states have a local public health organization which affiliates with the national. In New York State the place of a local organization is taken by the Sanitary Officers' Association, whose membership is almost entirely drawn from the health officers of the state. This Sanitary Officers' Association holds an annual meeting in conjunction with a conference of health officers and public health nurses, called by the commissioner of health. This year the conference was held in conjunction with the annual meeting of the American Public Health Association.

TRI-STATE CONFERENCE

About two years ago, representatives of the Medical Societies of New Jersey and Pennsylvania approached us with the suggestion of holding a conference between the officers of the three Societies, for the purpose of discussing certain medical questions that involved the three states, with the idea, of probably suggesting uniform legislation.

The first meeting was held in Atlantic City a year ago last November. Since then there have been four conferences; one in Philadelphia, one in Atlantic City and two in New York, at which such subjects as, "The Nurse Question," "Workmen's Compensation," "Anti-Quack Legislation" and "Relations of the Medical Organization to voluntary Public Health Agencies"—have been discussed with great profit to all. We are learning that some of the problems that give us the greatest concern in this state, are common to the three states, and, in some instances, they have given us suggestions with regard to their solution, while to the solution of others we have been able to contribute from our experience.

These conferences should be continued, in my opinion, not only because of the advantages which arise from a discussion of common problems, but for the sake of developing a closer fraternal spirit with these two powerful neighboring Societies.

SECRETARIES' CONFERENCE

The Executive Committee authorized the Secretary and the Executive Officer to call a conference of the secretaries of the County Societies. Such conference was held in Albany and it was my privilege to be present. Almost every county was represented. In a few instances, the secretaries were on vacation.

The conference considered the present conditions of the County Societies and suggestions for improving them. From conversations I have had with secretaries at County Society meetings since that conference, I am convinced that the State Society should provide that such a conference may become an annual affair.

JOURNAL

Too much credit cannot be given to the Editor-in-Chief of our JOURNAL for the splendid type of publication he has given us. The section on Medical Progress, which was begun last year, has increased the value of the JOURNAL materially. There was, also, this year considerably more space devoted to the reports of County Medical Society meetings and to local county news. This portion of the JOURNAL is growing very valuable and will continue to do so, depending upon the cooperation the editors receive from County Societies. In certain states each County Society has one of its members appointed annually as reporter, whose function is to keep the State Journal informed of the activities of that County Society. There is probably no need for such appointment, but there is great value in reporting the activities of a County Society in the JOURNAL, where other County Societies can read and inform themselves of activities outside their own county. A number of the larger County Societies issue bulletins of their own. They do so because much of the material that the bulletin contains would not have the same interest to physicians residing in other counties, but the columns of our JOURNAL should be used by every county for all that would be of interest to any other county in the state. There are problems that are common to many counties, the solution of which no one county can satisfactorily accomplish, but if each were, from time to time, to give its experiences in the columns of the JOURNAL, where others could read them, satisfactory solutions might be expected.

The JOURNAL should not be simply a means of distributing scientific papers; it should also be the means of disseminating experiences—whether of successes or failures—of the County Societies' activities. Some physicians have told me that they begin to read the JOURNAL at the editorial page.

DR. OWEN E. JONES AND DR. WILLIAM FRANCIS CAMPBELL

It is with a sense of deep sorrow that I announce to you the death of two former presidents, during the past year. Dr. Owen E. Jones, a victim of his own zeal, suffered a breakdown while serving as president of this Society, from which he never recovered. To the last he retained a great interest in the growth of the Society and cherished the greatest devotion for its future achievements. Dr. William Francis Campbell will long be remembered for the unvarying devotion with which he served the Society. He probably was a close warm friend to more members than any of his associates. The Society is suffering a great loss in the death of these two men and I recommend that when this House of Delegates adjourns, it does so in honor of Dr. Owen E. Jones and Dr. William Francis Campbell.

Having come to the end of my term of office, I want to express my sincere appreciation of the honor you bestowed upon me a year ago. I trust that I have merited the confidence you then placed in me. I assure you that I have never undertaken any piece of work to which I have devoted more of my time or from which I have gotten greater stimulation and satisfaction, than I have from serving as your president. It is not with a feeling of having completed a task that I address you, I am sorry to say, because I thoroughly appreciate that the work of this Society—now more than one hundred and twenty years old—is still in its youth. Annually we are contributing, through our activities, to the great record of accomplishment in medical progress. The public is looking to us more confidently than it ever has done, for assistance in the solution of the great problem of public health. I wish that I might have had an opportunity to visit each County Society as I did each District Branch Society, but that was impossible for several well-known reasons.

Before closing, I wish to make one more recommendation, and that is that the expense allowance to the president be increased. Each man occupying this position henceforth, is going to find it necessary that he devote almost his entire time to the demands of the Society, and much of that time will be spent in travel. This fact should be realized by you and the proper provision made.

I would be very ungrateful if I did not express a word of appreciation for the staunch support afforded me by all of the officers and committees. There has never been a year of greater activity. Your president-elect has been my closest associate throughout the year and it is with the greatest confidence in the future progress of the Society, that I retire before him.

George M. Fisher,
March 15, 1927. *President.*

REPORT OF THE SECRETARY

To the House of Delegates—

Gentlemen:

The Secretary again has the honor of submitting a report to the House of Delegates.

In his report of last year, he endeavored to lay stress upon the great need of business efficiency and organization and took occasion to point out some of the faults and fallacies that, in his opinion, had tended to develop a system, or rather lack of system, in the conduct of affairs, not consistent with modern ideas and methods. He outlined also, certain changes that he deemed necessary to produce results that might benefit the Society. He has worked hard and faithfully during the year to accomplish this end but feels that although considerable progress has been made, much still remains to be done.

He wishes to emphasize two statements made in his last report. First, the Secretary, per se, concerns himself only with the business side of the Society's affairs, with the conduct of his office and the relation it bears to the component County Societies to the officers and to the committees; legislation and policies, he is not concerned in except as an individual member. Secondly, the Secretary of the Society, being also Secretary of the House of Delegates, of the Council, of the Executive Committee, of the Censors and of the Board of Trustees and a member of all standing committees is essentially the business officer of the Society and should be recognized as the head of the Society's office de facto as well as de jure.

To the uninitiated, the office may seem easy and pleasant; to one who has intimate knowledge of it, the burden is heavy and without the friendly consideration and cooperation of the members and officers the Secretary would not be able to carry it.

The Society's Office

Here the greatest improvement is shown. The antiquated headquarters with their obsolete equipment are things of the past and the Society now occupies a pleasant and commodious suite of offices on the fourth floor of the new Academy of Medicine building. The office furniture and other appliances have been brought up to date; the filing system is excellent and a more thorough system of bookkeeping has been adopted.

With the advent of the Board of Trustees, the financial affairs of the Society have taken a more business like aspect and a proper correlation of the Secretary and Treasurer's offices with the Board has been established by a system of monthly audits. There is, however, still room for improvement.

The Editorial Department has been separated from the Secretary's office and now occupies suitable quarters on the fifth floor of the building with a clerical staff of its own.

The Secretary feels that no more can be done at present but believes that in the time to come the *Directory* should be placed with the Journal under a Publication Department and that a proper Financial Department should be formed separate from the Secretarial Department. With such a division of activities, each functioning individually, but correlating through the business manager and under the general supervision of the Secretary, a nearer approach to a perfect business organization would be made. It should be remembered that although primarily a medical society, the Medical Society of the State of New York is a chartered membership corporation working under and subject to all the legal rules and regulations governing such corporations.

Reports and Communications

All reports and official communications should go through regular organized channels, only in that way can correct records be kept and overlapping and confusion be avoided. Many documents of value which should be properly filed for future reference are still in the hands of ex-presidents and former committee-men. The Secretary respectfully requests that all such be sent to the Society's office.

For the purpose of clarity and expediency, all resolutions and motions offered in the House of Delegates should be in writing and in duplicate, one copy for the Reference Committee and one for the Secretary's file.

The Secretary suggests that the habit contracted of late years of deferring action on resolutions and referring them to the Council should be done away with as far as possible; the House being more representative of the Society and its floor being open for debate.

District Branches

In accordance with a time honored custom, the Secretary visited the Annual Meetings of the eight District Branches. The meetings were found to be well attended, sincerely enthusiastic and interested in the work, with programs of real worth.

It is being realized more and more that these District Branches fill an important place and have a distinct value in the economy of the State Society. They afford the membership an opportunity to get away from the narrower confines of the County Society, form new contacts and broaden their interests.

The Presidents of the Branches are Councillors of the State Society and should keep by a system of County Society visitations, the counties informed of what is going on in the State Society, and themselves in close touch with the work and needs of the County. It is the opinion of the Secretary that these District Branches can do much toward the future progress of the State Society.

Conference of Secretaries

During the year there have been held two conferences of County Secretaries; one in New York City during the Annual Meeting and one in Albany on September 2. These conferences have been of great benefit to the Society and to its component county units.

The Secretary recommends that they be continued and that they take the same form of instructive discussion instituted at the Albany meeting.

The Secretary had the pleasure of attending the American Medical Conference of State Secretaries and Editors and to the New York Secretary fell the honor of being selected to present the opening paper in the discussion.

Executive Officer

The Secretary feels that he would be derelict in his duty of making a correct report without especially mentioning the work of the Executive Officer, work that has been of great benefit to the Society.

His legislative duties have increased in extent and importance as the years have gone by and he has become more intimately known to and influential among the legislators.

Of equal value has been his work as a liason officer between the different county societies and between the societies and various welfare and health organizations. Commendable also has been his work in the District Branches where he has taken over the work assigned by the By-laws to the Secretary with far more benefit to the Branches and the Society than could be done by that officer.

His work in the Secretaries' Conferences and the Tri-State Conference in New York City, together with his work in connection with the Committee on Nursing and the Public Relation Committee, are all well worthy of mention.

Membership Statistics

Membership, December 31, 1925	10,084	
New Members, 1926	695	
Re-instated Members, 1926	399	
		11,178
Deaths	131	
Resignations	43	174
		11,004
Dropped for non-payment of dues: December 31, 1926		545
		10,459
Members elected after October 1, 1926 and credited to 1927		241
Membership, January 1, 1927		10,700

The list of honor counties whose membership shows all dues paid for the year is as follows: Cayuga, Chemung, Delaware, Essex, Fulton, Greene, Lewis, Nassau, Orleans, Rockland, Schoharie, Schuyler, Seneca and Tompkins.

The Secretary takes pleasure in extending his thanks to the Business Manager for her valuable assistance and effective work; to the Executive Officer for his support and willing cooperation and to the Councillors for the cordial greeting and hospitality extended to him at the District Meetings. He thanks the members of the Executive Committee and the Board of Trustees for their courteous consideration of him as Secretary of those respective bodies and extends his sincere thanks to the President for his many acts of friendly kindness and his never failing courtesy.

The Secretary records with sorrow the deaths of two former Presidents of the Society, Dr. William Francis Campbell and Dr. Owen E. Jones. Appropriate action in their memory has been taken by the Council.

Respectfully submitted,

D. S. Dougherty,
March 15, 1927. *Secretary.*

CHARLES GORDON HEYD, Treasurer, In Account with THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Dr. Cr.

CASH RECEIPTS, YEAR ENDED DEC. 31, 1926

Balance at January 1, 1926		$17,940.50
RECEIPTS:		
Directory Advertising, 1925	$2,500.00	
Directory Advertising, 1926	1,520.00	
Directory Sales, 1925	1,790.50	
Directory Sales, 1926	1,897.00	
Annual Dues, Arrears	391.00	
Annual Dues, 1925	4,079.50	
Annual Dues, 1926	102,761.00	
Annual Dues, 1927	1,730.00	
Clerical Work	148.31	
Telephone	2.64	
Interest on Deposits	898.01	
Sale of Old Journals	5.00	
Interest on Liberty Bonds	429.25	
Interest on Mortgage Certificate	123.75	
Sale of Furniture and Fixtures	122.50	
Refund of Expense	40.00	
Refund of Traveling Expense	14.78	
Annual Meeting, 1926, Exhibits	8,437.13	
Annual Meeting, Banquet and Delegates' Dinners	1,398.00	
Journal Subscriptions and Sales	406.49	
Journal Advertising	26,704.71	
Journal Expense	5.25	
		$155,404.82
Total		$173,345.32

CASH PAYMENTS, YEAR ENDED, DEC. 31, 1926

Rent		$2,426.32	
Telephone		251.28	
Salaries, General		11,368.71	
Insurance		7.60	
Journal Postage		2,729.65	
Journal Commissions		7,611.54	
Journal Salaries		1,995.00	
Journal Expenses		996.39	
Journal Publication		26,206.70	
Executive Editor, Salary		5,000.00	
Expense		789.64	
Honorarium, Editor-in-Chief		500.00	
Journal Salary, Literary Editor		1,200.00	
Journal Discount		1,090.93	
Postage		518.59	
Furniture and Fixtures		3,623.33	
Union Dime Savings Bank		123.75	
Traveling Expenses, General		2,795.80	
A. M. A. Delegates		1,779.86	
General Expense		594.43	
Stationery and Printing		1,313.56	
Carfares		37.20	
Express		36.30	
Honorarium		500.00	
Premium Treasurer's Bond		12.50	
Audit		393.75	
Clerical Work		71.83	
Annual Meeting, 1926		9,244.37	
Annual Meeting, 1927		40.75	
Legal Expense		15,132.66	
Committee on Legislation		4,822.63	
District Branches		1,246.60	
Honorarium and Expenses, Secretary		1,333.33	
Annual Dues, 1926, Overpayments		970.00	
Reorganization Committee		455.00	
Committee on Medical Economics		117.00	
Committee on Nurses' Problems		533.93	
Committee on Legal Department		100.00	
Committee on Medical Practice Act		10.00	
Committee on Public Health		3,291.26	
County Secretaries' Luncheon		770.16	
Invested Funds		25,739.58	
Dr. Phillips' Testimonial Dinner		69.75	
Directory Commissions		1,161.75	
Directory Incidentals		186.07	
Directory Postage		656.01	
Directory Delivery		1,266.32	
Directory Discounts		36.00	
Directory Printing		11,569.63	
Directory Stationery and Printing		373.91	
Directory Salaries		3,956.26	
Executive Officer, Salary		8,000.00	
Executive Officer, Expense		1,694.98	
			$166,752.61
Balance Deposit Guaranty Trust Company, Dec. 31, 1926			
General	$6,126.98		
Committee on Medical Research	465.47		
Petty Cash	.26		
Total Cash at Dec. 31, 1926			6,592.71
Total			$173,345.32

ANNUAL DUES, 1926

County	Amt. Paid
Albany	$2,110.00
Allegany	248.00
Bronx	6,559.00
Broome	1,040.00
Cattaraugus	320.00
Cayuga	560.00
Chautauqua	760.00
Chemung	510.00
Chenango	270.00
Clinton	250.00
Columbia	350.00
Cortland	190.00
Delaware	200.00
Dutchess-Putnam	886.00
Erie	5,895.00
Essex	240.00
Franklin	440.00
Fulton	410.00
Genesee	200.00
Greene	210.00
Herkimer	$320.00
Jefferson	675.00
Kings	15,170.00
Lewis	120.00
Livingston	165.00
Madison	280.00
Monroe	4,070.00
Montgomery	400.00
Nassau	1,230.00
New York	35,350.00
Niagara	870.00
Oneida	1,640.00
Onondaga	2,830.00
Ontario	640.00
Orange	921.00
Orleans	170.00
Oswego	390.00
Otsego	395.00
Queens	3,045.00
Rensselaer	1,000.00
Richmond	$710.00
Rockland	400.00
St. Lawrence	540.00
Saratoga	400.00
Schenectady	1,010.00
Schoharie	160.00
Schuyler	110.00
Seneca	110.00
Steuben	660.00
Suffolk	1,040.00
Sullivan	270.00
Tioga	$220.00
Tompkins	590.00
Ulster	620.00
Warren	420.00
Washington	370.00
Wayne	342.00
Westchester	3,100.00
Wyoming	220.00
Yates	140.00
Total	$102,761.00

ADVANCE DUES, 1927

County	Amt. Paid
Bronx	$130.00
Franklin	10.00
Herkimer	40.00
Kings	490.00
New York	840.00
Onondaga	60.00
Ontario	$40.00
Queens	40.00
Richmond	10.00
Rockland	10.00
Westchester	60.00
Total	$1,730.00

DIRECTORY ACCOUNT

Income.		
Advertisements	$5,739.00	
Sales	3,341.50	
		$9,080.50
Cost of Directory		10,128.95
		$19,209.45

Expenditures.		
Printing	$11,569.63	
Salaries	3,956.26	
Incidentals	168.07	
Commissions	1,161.75	
Discount	39.50	
Postage	656.01	
Delivery	1,284.32	
Stationery and Printing	373.91	
		$19,209.45

JOURNAL ACCOUNT FOR THE YEAR ENDED DECEMBER 31, 1926

Income		
Advertisements	$28,602.18	
Sales	402.99	
		$29,005.17
Cost of Journal		19,179.48
		$48,184.65

Expenditures		
Publication	$26,206.70	
Postage	2,729.65	
Expenses	948.64	
Salaries	3,528.34	
Salary, Executive Editor	5,000.00	
Expense, Executive Editor	789.64	
Commissions	7,611.54	
Discounts	1,093.80	
Rent	276.34	
		$48,184.65

BALANCE SHEET, DECEMBER 31, 1926

Assets		
Current		
Cash in Bank	$6,578.98	
Petty Cash	.26	$6,579.24
Accounts Receivable:		
Journal Advertising		2,530.75
Directory Advertising		3,860.00
Inventory of Directories		1,095.00
Liberty Bonds		9,841.26
Investments		25,393.75
Accrued Interest on Investments		421.56
Deferred Charges:		
Annual Meeting, 1927		40.75
Dr. Phillips' Testimonial Dinner		69.75
Trust Fund Investments:		
Union Dime Savings Bank, Lucien Howe Prize Fund	$1,161.39	
Union Dime Savings Bank, Merritt H. Cash Prize Fund	574.27	
Liberty Bonds	599.34	
Guarantee Mortgage Certificate	2,000.00	
Interest on Mortgage Certificate	41.65	
Interest on Liberty Bonds	1.24	
Cash, General	13.47	
Total Trust Fund Investments		$4,391.36
Fixed Assets:		
Furniture and Fixtures		3,623.33
Total		$57,846.75

Liabilities		
Current		
Advance Dues, 1927	$1,730.00	
Committee on Medical Research	465.47	
Total Current Liabilities		$2,195.47
Trust Funds:		
Lucien Howe Prize Fund	$2,943.76	
Merritt H. Cash Prize Fund	1,333.55	
Dr. J. A. Coles Benevolent Fund	114.05	
Total Trust Funds		$4,391.36
Surplus:		
Balance, January 1, 1926		$32,520.62
Excess of Income over Expenses	18,739.30	
Total Surplus		$51,259.92
Total		$57,846.75

DOYLE & CARPENTER, Accountants and Auditors.

STATEMENT OF INCOME AND EXPENSES, FOR THE YEAR ENDED DECEMBER 31, 1926

Income		
Annual Dues, Arrears	$391.00	
Annual Dues, 1925	4,079.50	
Annual Dues, 1926	103,281.00	
Clerical Work	28.53	
Interest on Deposits	898.01	
Interest on Liberty Bonds	425.00	
Annual Meeting	399.63	
		$109,502.67

Expenditures		
Committee on Medical Economics	$117.00	
Committee on Public Health	3,291.26	
Committee on Nurse Problems	533.93	
Committee on Medical Practice Act	10.00	
Committee Legal Department	100.00	
Committee on Reorganization	455.00	
Committee on Legislation	4,822.63	
District Branches	1,246.60	
Honorarium and Expenses, Secretary	1,333.33	
Honorarium	500.00	
Salaries, General	11,368.71	
Rent	2,149.98	
Telephone	313.10	
Stationery and Printing	1,040.78	
Postage	518.59	
Expenses	1,072.05	
Insurance	7.60	
Auditing	393.75	
Legal Expenses	15,132.66	
Traveling Expenses, General	2,794.67	
" A. M. A.	1,779.86	
Loss on Sale of Furniture	2,008.30	
County Secretary's Luncheon	770.16	
Executive Officer, Salary	8,000.00	
" Expenses	1,694.98	
Cost of Directory	10,128.95	
Cost of Journal	19,179.48	
Total Expenses		$90,763.37
Excess of Income over Expenses	$18,739.30	
		$109,502.67

REPORT OF THE COUNCIL

To the House of Delegates—

Gentlemen:

The Council has the honor of presenting the following report which includes those of the Executive Committee and Committee on Publication.

Three meetings have been held; May 13, April 1, and December 9.

In accordance with the provision of the By-laws governing the constitution of an Executive Committee, the following members of the Council were elected to serve with the President and the Secretary: John E. Jennings of Kings, E. Elliot Harris of New York, Harry R. Trick of Erie, John A. Card of Dutchess and Nathan B. Van Etten of Bronx.

Other appointments made were Chairman of Committee on Arrangements, F. J. Schnell of Niagara; Editor-in-Chief, O. S. Wightman of New York; Executive Editor, F. Overton of Suffolk; Executive Officer, J. S. Lawrence of Albany and as Committee on Publication, the Speaker, the Secretary and N. B. Van Etten.

The Council sanctioned the appointment of three important special committees: to study the Nursing Problem, N. B. Van Etten, Bronx, Chairman; on Public Relations, George W. Cottis, Chautauqua, Chairman, and a committee for the study of Cardiac Disease, R. H. Halsey of New York, Chairman.

The conferences with the officers of the Medical Society of the State of Pennsylvania and that of New Jersey have been continued and reports of their proceedings published in the JOURNAL.

Two sections, one on Dermatology and Syphilis and one on Industrial Medicine were added to the Sections of the Scientific Session.

On June 15, the members of the Council gave a dinner in honor of the Chairman of the Committee on Legislation, Harry L. K. Shaw, and on January 27, the Society through the Council tendered a testimonial dinner to Wendell C. Phillips, President of the American Medical Association.

EXECUTIVE COMMITTEE

The Executive Committee has held meetings on the second Thursday of each month.

The business transacted at these meetings has consisted mainly of the routine work necessary to the proper functioning of the Society, in the carrying out of the instructions of the Council, in the preparation of the budget, in the examination of the various bills and expense accounts and in the endorsement of them for reference to the board of Trustees. It will be seen from this that the Executive Committee is the business committee of the Society.

COMMITTEE ON PUBLICATION

This Committee has, in accordance with the By-laws, supervision over all publications of the Society and in the performance of this duty has held conferences with the Editor as the occasion demanded. The Committee feels that the thanks of the Society are due the Editor and his staff for the wonderful work they have done in raising the standard of the JOURNAL and in placing it upon a more substantial financial basis.

The following shows the 1926 Receipts and Expenses, exclusive of stenographers' salaries and incidentals.

Receipts

Advertisements and Sales	$29,005.17

Expenses

Salary of Editors	$ 6,700.00
Printing, postage, mailing	28,936.35
Commissions	7,611.54

The cost of the JOURNAL to the Society shows a decrease in 1926 over 1925 of $5,722.40. This decrease is due to an increase in the receipts from advertisements and sales of $10,203.00, and has been accomplished in spite of an increase in expenditures due to the JOURNAL now having its own editorial offices, equipment and clerical force, as well as a general expansion in all directions.

Directory

1926 Receipts and Expenses, exclusive of stenographers' salaries and incidentals.

Receipts

Advertisements and Sales	$ 9,080.50

Expenses

Printing, postage and delivery	13,509.96
Commissions	1,161.75

The *Directory* shows an increase in the cost to the Society of $921.00. This is due to an increase in the size of the edition as well as in the size of the book and to the using of a better quality of paper for the cover. It is not due to a decrease in advertisements and sales which show an increase over 1925 of $443.00.

The Council and its Executive Committee have endeavored to carefully consider and act upon the many resolutions and recommendations referred to them by the House of Delegates but the absence of proper data has frequently made such study a matter of great difficulty, in fact, in some instances, impossible.

Respectfully submitted for the Council,

D. S. DOUGHERTY,
Secretary.

March 15, 1927.

REPORT OF TRUSTEES

To the House of Delegates:

Gentlemen:

The Board of Trustees of the Medical Society of the State of New York met on May 14, 1926 at which time they organized. Dr. George M. Fisher, President of the State Society, presided as temporary chairman.

The motion was adopted, until otherwise decided, that the member serving the last year of the term for which he was elected be Chairman of the Board and the member immediately succeeding him in term of service be Vice-Chairman.

In accordance with this decision Dr. Frederick H. Flaherty became Chairman and Dr. Arthur W. Booth, Vice-Chairman. In accordance with the By-Laws, Dr. D. S. Dougherty became Secretary.

The Board has held nine regular meetings in New York City. It is very gratifying that there has been a very full attendance of the Board at each meeting. Only on one occasion has there been more than one member of the Board absent at a meeting.

One of the first acts of the new Board was to adopt the budget as presented by the Executive Committee for the year ending May 15, 1927.

Monthly audits of the Society's accounts were ordered to be rendered to the Board at each monthly meeting, the Board employing an expert accountant for this purpose.

$25,000.00 of the Society's funds were invested in bonds, acceptable to savings banks, in lots of $5,000.00 each and deposited in a safety box in the vault of the Chase National Bank and $15,000.00 more will be placed in savings banks in units of deposits of such size as to obtain the maximum rate of interest.

It was decided that the power of drawing checks on the investment funds be vested solely in the Board of Trustees and that all five of the elective members' signatures be necessary for the withdrawal of such funds.

The Board also made a rule that no expenditures, except those incurred for routine business, should be paid until examined and endorsed by the Board of Trustees.

Mr. Lloyd Stryker, our Counsel, and Dr. C. Gordon Heyd, our Treasurer, were in attendance at several of our meetings where their advice and counsel were needed.

Upon recommendation of the Executive Committee it was ordered that the sum of $1.00 from the dues of each member be applied as a subscription to the directory and also $1.00 from the dues of each member be applied as a subscription to the JOURNAL.

Respectfully submitted,
FREDERICK H. FLAHERTY,
Chairman.

March 15, 1927.

REPORT OF THE BOARD OF CENSORS

To the House of Delegates:

Gentlemen:

The Board of Censors presents the following report:

By reason of appeals from decision of two County Societies, three meetings have been held.

On May 13, 1926, the Board convened to hear the appeal of Dr. Harry Benjamin from the decision of the Medical Society of the County of New York, the County Society having denied his application for membership. After due trial, both sides being represented and heard, the Censors rendered their decision in favor of the Society. Notice of appeal to the House of Delegates was served on the Secretary but has been withdrawn.

On December 10, 1926, the Board was called together to hear an appeal of Dr. C. Everett Field from the action of the Medical Society of the County of Queens expelling him from membership. Three sessions were held; two on that date and an adjourned session on January 27, 1927. The appellant was represented both in person and by counsel; the Society resting its case upon the stenographic report of the testimony taken at the trial. The Board unanimously affirmed the decision of the County Society.

Respectfully submitted,
D. S. DOUGHERTY,
March 15, 1927. *Secretary.*

REPORT OF THE COMMITTEE ON LEGISLATION

To the House of Delegates—

Gentlemen:

Your Committee on Legislation takes pleasure in reporting that it has just completed a year of rest and peacefulness, following the decade of strife attending our efforts to secure an amendment to the Medical Practice Act, which we were last year successful in having enacted.

The last session of the Legislature was, on the whole, entirely satisfactory with regard to legislation affecting the interests of the medical profession. The lull after the storm of last year was very noticeable and the legislators, in the main, seemed content to allow the Medical Practice Act full opportunity to show its value and not to pass any legislation that would affect its character or interefere with its effectiveness. On the closing day of the 1926 legislature a committee to investigate chiropractic was appointed at the instigation of the chiropractors themselves. The joint legislative committee held five hearings, three of them devoted to taking testimony of the chiropractors and two for the medical and educational side. Your Committee at the outset offered any help or assistance, but the committee wished to be entirely impartial and did not deem it wise to have the medical profession actively connected with their deliberations; in fact, one hearing was held without your Committee being notified. It was felt that the Counsel of the Society should represent us at the hearings and that the educational qualifications of the chiropractors should be the main consideration and that we should not enter into a discussion of the relative merits of therapeutics and chiropractic treatments. This committee submitted its report on the 15th of March and made no recommendations either for or against chiropractic. The report was remarkable for its brevity and failure to arrive at any conclusion. It did not make any request to have the committee continued. In the main the report could be considered as favorable to the medical profession.

Your Committee reintroduced the nurse registry bill, which was prepared by the Society last year and through conversation with committee chairmen and other legislators, explained its intent and the demand on the part of the public for such protection as it offered. It passed both houses with no opposition, and was in time signed by the Governor and is now Chapter No. 320 of the Laws of 1927.

There was an effort on the part of the chiropractors to pass two bills, one which would have removed them entirely from the jurisdiction of the Medical Practice Act. Another would have enabled physiotherapists to practice without medical supervision. A determined effort was made to pass these bills during the closing days of the legislature and the chiropractors were able to marshal very strong political influence. It was for this reason that your Committee sent urgent telegrams to the chairmen of County Committees asking for their influence in reaching their local legislators. This had great effect and undoubtedly deterred the leaders from permitting these bills to pass.

The chiropractic bill was probably the most vicious that has been introduced in many years and it is a decided victory for the medical profession to have been able to kill the bill by having it retained in committee.

The Labor and Industry Commission made a report toward the close of the session and recommended certain legislation. They did not recommend the reorganization of the medical division as was attempted during the two preceding years, and most of the bills that they recommended which would have affected the practice of medicine, were either defeated or have since been vetoed. This Commission has been continued and we hope will give more attention to the medical phase of the Workman's Compensation Law.

The anti-vaccination and the anti-vivisection bills were introduced, as usual, but received no more consideration than in previous years.

The optometrists, a portion of whom are legally using the title "Doctor," endeavored to have the law amended so that they might all use the title, providing they followed their name with the word "Optometrist." This bill passed both houses and is now in the hands of the Governor. Your Committee opposed the passage of the bill and requested the Governor to veto it, on the ground that the designation of "Doctor," in connection with the healing art, should be used only by the licensed physicians of the state.

The osteopaths renewed their efforts to secure license to do minor surgery, administer anaesthetics, narcotics and antitoxins. We recognize that inasmuch as they are permitted to do obstetrics, they should have the privilege of administering anaesthetics and narcotics, but we strenuously opposed granting them a license to do minor surgery on the ground that there is no adequate definition of major surgery. Your committee's opposition was specifically based on the fact that with the passage of the medical practice act in 1912, over 400 osteopaths were licensed to practice osteopathy who had never received instructions in surgery nor in the use of anaesthetics, etc. This bill is now in the hands of the Governor.

For a number of years the members of the Bar Association have been endeavoring to have enacted a narcotic drug law. This year they continued their efforts and finally succeeded in having their bill passed by both houses. So far as the physician is concerned, it simply recognizes that if he carries out the regulations of the Harrison Law, he will be complying with the State Law. The bill provides for the commitment of addicts and probably this will be difficult of enforcement, because in most sections of the state there are no available hospitals suitable for the treatment of addicts. The introducers of this bill had a companion bill which would have licensed private hospitals for the care and treatment of drug addicts, to which those apprehended by the law might be admitted, but this bill failed of passage.

The most important legislation in recent years was that enacted last year when the amendment to the Medical Practice Act became a law. It takes many months to build up the machinery for its enforcement and to get it in smooth running order, but in a short space of time it has worked out most successfully. A Committee on Grievance was appointed by the Board of Regents, composed of prominent physicians from various sections of the state, and at their first meeting Dr. Orrin Sage Wightman, past-president of this Society, was elected chairman, and Dr. Frederick H. Flaherty, of Syracuse, secretary. The attorney general designated two deputy attorneys general for full time work in connection with the prosecution of violators of this act. Five inspectors have been appointed by the Department of Education, who are spending their entire time investigating cases referred to them by the Grievance Committee and in seeing that the features of the bill are being carried out. One very marked effect in the enactment of the provision prohibiting chiropractors to use the word "Doctor," has been that nearly five hundred chiropractors have left the state. Their work is being watched very carefully and it is reported that a large number of chiropractors are requiring patients to sign affidavits before treatment will be administered, stating that they will not appear in court against the chiropractors. This will very likely limit the number of their patients.

The Department of Education has received many complaints which it has been able to remedy and rectify by correspondence and through the efforts of the attorney general, without resource to the courts. The registration of physicians has been remarkably successful and over 16,000 have complied with the law. A list of these physicians will be mailed to each member of the medical profession at the end of April or early in May. The list is now in the hands of the printer, but there has been some delay owing to the severe illness of the assistant in charge of this work.

The provision relating to physiotherapists has resulted in the licensing of comparatively few such practitioners. Upwards of three hundred applications were received by the Department of Education and of that number, thus far, less than seventy-five have been licensed and it is not probable that the number ultimately licensed will exceed seventy-five. There is already a movement on foot to establish a thorough, honest school of physiotherapy within the state, so after a few years everyone licensed to practice physiotherapy will have graduated from a school recognized by the Board of Regents. At present there is no such school.

We wish to extend to the officers of the State Society and to the chairmen and officers of the County Societies, our thanks and appreciation for the splendid support they gave us during the year, and we hope they will support the Committee as staunchly in another year. Since there were so few controversial bills introduced in the early part of the session, we did not think it necessary to hold a conference of the County Society chairmen in Albany this year.

The chairmen of the Public Health Committees of the Legislature—Senator Webb in the Senate and Dr. Lattin in the Assembly—have done very valuable work in the interests of the medical profession, and they should not go unrecognized. There has been a very marked desire on the part of the legislators, as a whole, to refer to the Committee on Legislation for advice regarding medical legislation.

We wish to call attention to the very cordial and friendly relations which existed between our Committee and the State Charities Aid Association, the American Association for Medical Progress, the Department of Education, the State Department of Health and the Department of Health of New York City. Their cooperation has aided very materially in preventing the passage of undesirable bills.

The Executive Officer, Dr. Lawrence, has been on the job in season and out of season, and he has been on the firing line throughout the entire legislative session. His acquaintance with the legislators has been most valuable and the successful year of medical legislation is very largely due to his efforts.

The offices of the Legislative Bureau are to be moved from their location at Pine and Chapel Streets to a more satisfactory location in the City Savings Bank Building, 100 State Street.

Respectfully submitted,

Henry L. K. Shaw, *Chairman.*

April 1, 1927.

REPORT OF THE COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

To the House of Delegates:
Gentlemen:

GRADUATE EDUCATION

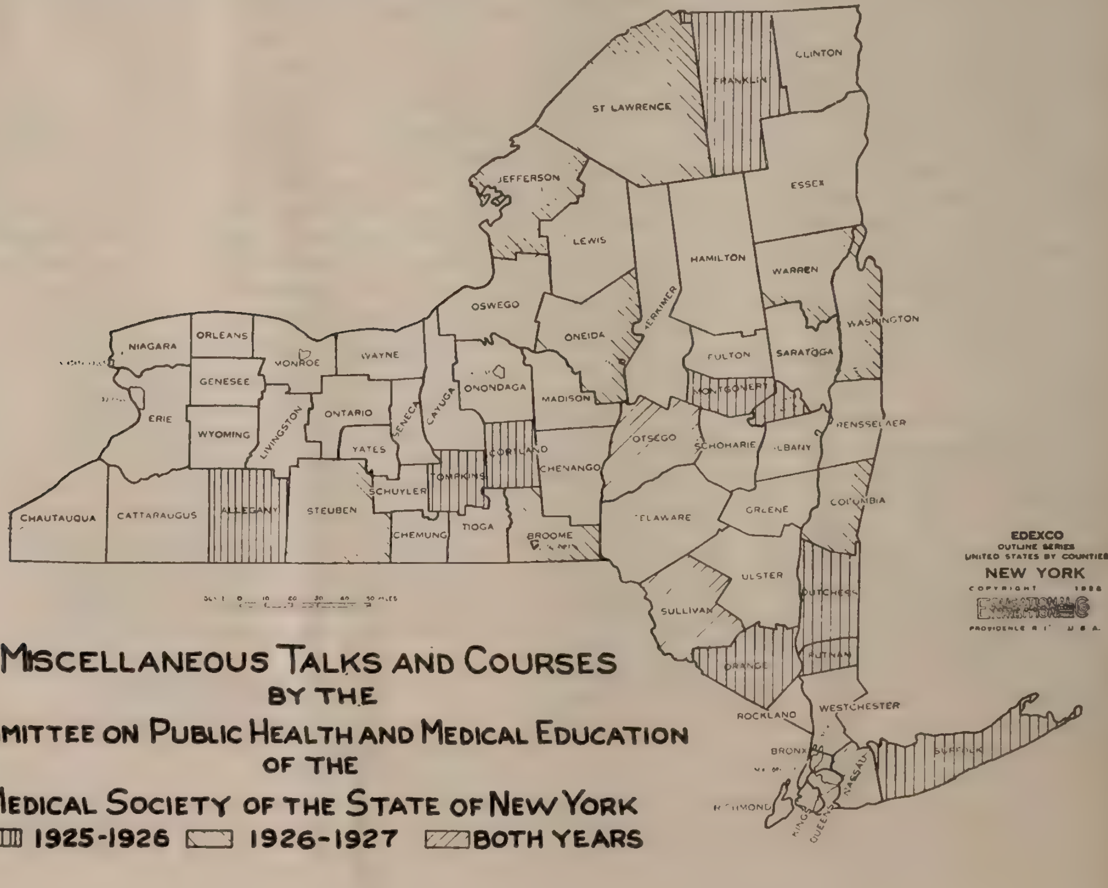
During the past two years the Committee on Public Health and Medical Education has carried graduate medical education to 49 counties of the State. Lectures and demonstrations, with patients when possible, have been given in obstetrics, surgery, pediatrics, gastro-enterology, endocrinology, hypertension, nephritis, dermatology, syphilis, psychiatry, urology, and the chest, including tuberculosis, empyema and cardiac disease.

For the most part these lectures are scheduled to run from one to two hours on the same day and hour each week for six successive weeks. Each county, however, may have as many lectures as it wants. Nassau is now having its second series of 20. Montgomery covered hypertension in an intensive course of eight weeks, one day a week, long sessions, the lecturer cooperating with a dietitian, checking results from week to week on the same patients. Oneida's course in cardiac diseases, although only six periods, covered a wide range, and much time was given to the presentation of cases. In Monroe, daily lectures were given for two weeks in obstetrics and pediatrics, and this plan secured excellent attendance.

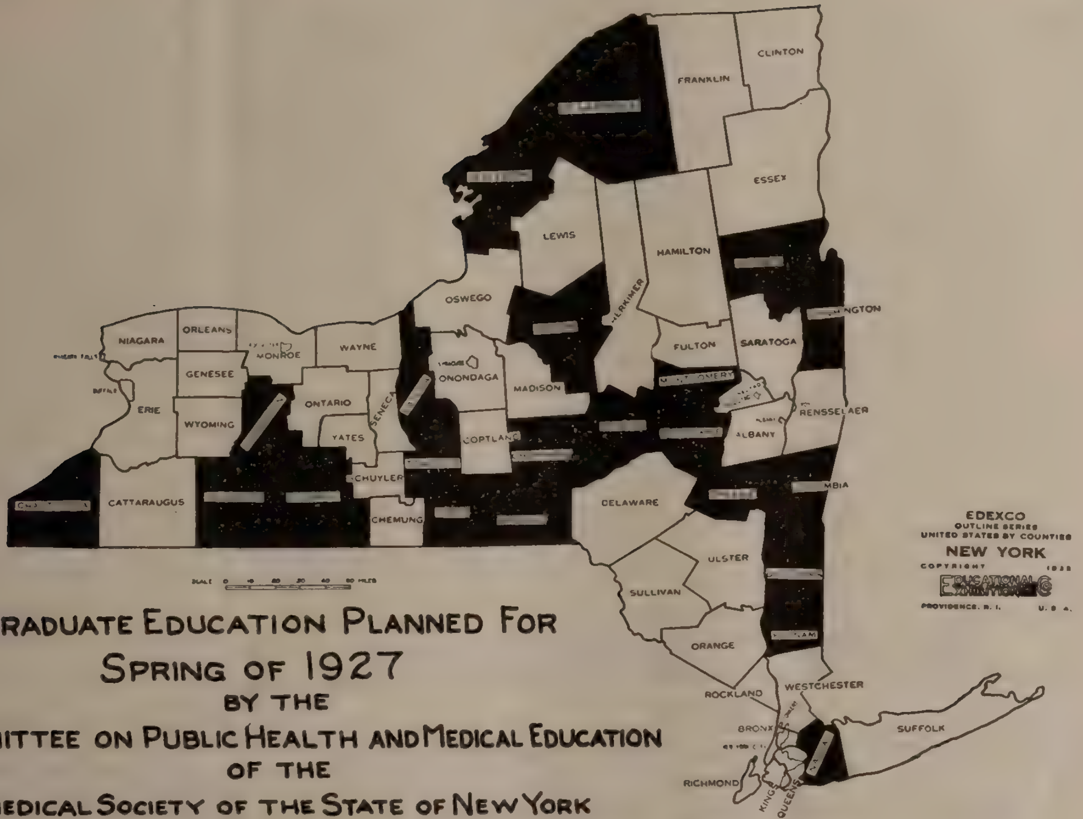
When possible, courses have been arranged in adjoining counties, so that lecturers may cover more than one county in the same day—afternoon in one county and evening in the other, or at one central point for two or more counties. At no time, however, has any effort been made to save lectures at the expense of good attendance.

Since the publication of our last annual report, courses in obstetrics have been given in the counties of Cattaraugus, Chautauqua, Clinton, Essex, Franklin, Genesee, Monroe, Nassau, Orange, Orleans, Otsego, Rockland, Schoharie, Steuben (Corning), Tioga, Ulster, Warren, Washington and Wyoming. Courses in pediatrics have been given in the counties of Albany, Broome, Chemung, Chenango, Columbia, Erie, Fulton, Herkimer, Jefferson, Monroe, Nassau, Niagara, Ontario, Rensselaer, St. Lawrence, Seneca, Steuben (Hornell), Wayne and Yates.

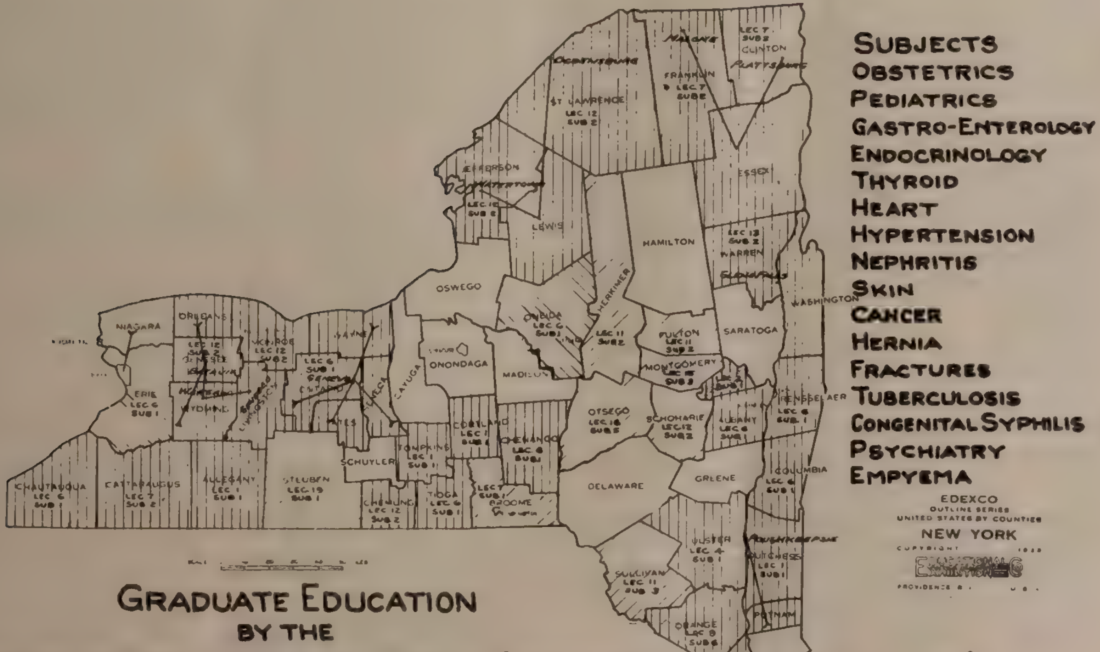
Courses have been given in hypertension in Montgomery, gastro-enterology in Sullivan and Nassau, cardiac disease in Oneida, and single talks in cardiac disease in Cortland, Otsego,



MISCELLANEOUS TALKS AND COURSES
BY THE
COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION
OF THE
MEDICAL SOCIETY OF THE STATE OF NEW YORK
▥ 1925-1926 ☐ 1926-1927 ▨ BOTH YEARS

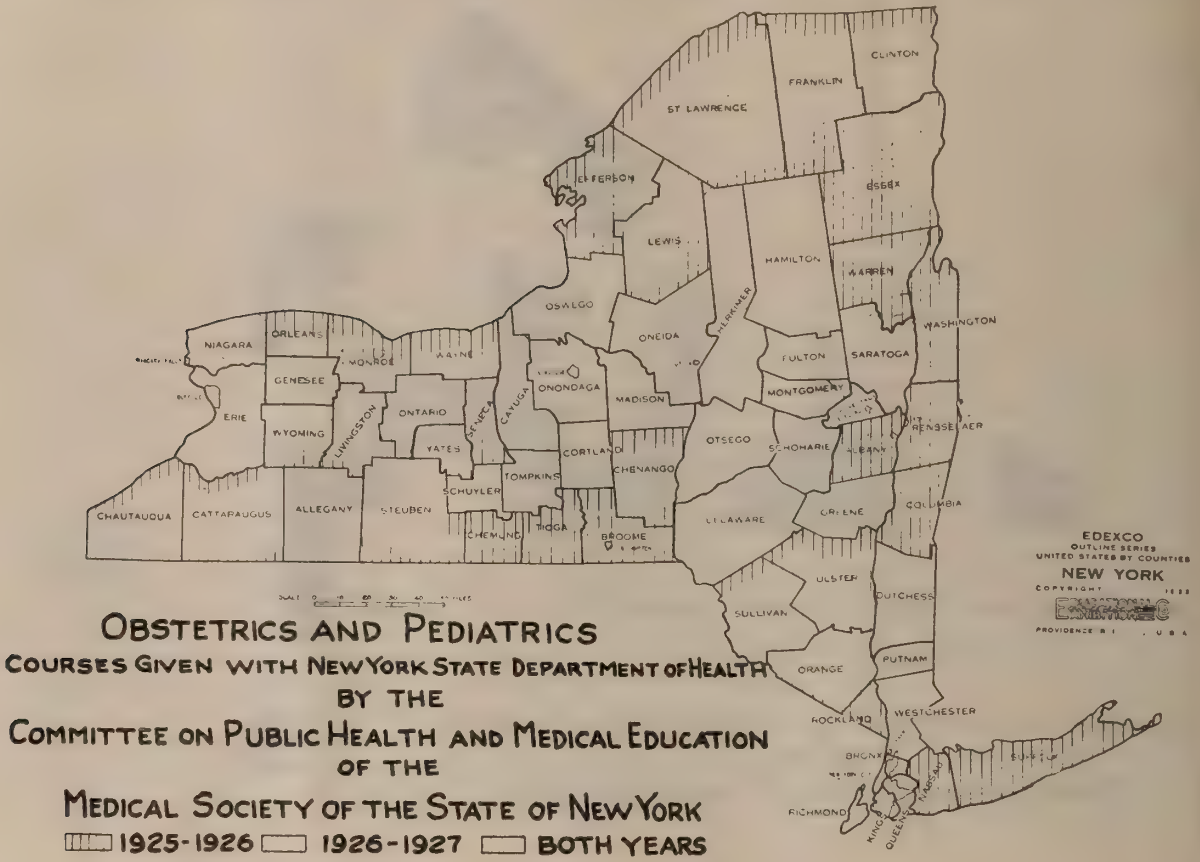


GRADUATE EDUCATION PLANNED FOR
SPRING OF 1927
BY THE
COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION
OF THE
MEDICAL SOCIETY OF THE STATE OF NEW YORK



SUBJECTS
OBSTETRICS
PEDIATRICS
GASTRO-ENTEROLOGY
ENDOCRINOLOGY
THYROID
HEART
HYPERTENSION
NEPHRITIS
SKIN
CANCER
HERNIA
FRACTURES
TUBERCULOSIS
CONGENITAL SYPHILIS
PSYCHIATRY
EMPYEMA

GRADUATE EDUCATION
BY THE
COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION
OF THE
MEDICAL SOCIETY OF THE STATE OF NEW YORK
▥ 1925-1926 ▧ 1926-1927 ▨ BOTH YEARS
(LINES INDICATE TIE-UPS OF ADJOINING COUNTIES FOR JOINT COURSES)



OBSTETRICS AND PEDIATRICS
COURSES GIVEN WITH NEW YORK STATE DEPARTMENT OF HEALTH
BY THE
COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION
OF THE
MEDICAL SOCIETY OF THE STATE OF NEW YORK
▥ 1925-1926 ☐ 1926-1927 ☐ BOTH YEARS

Nassau, Steuben and Tompkins; office orthopedics in Broome; cancer of the breast and empyema in Otsego; endocrinology, cancer of the breast, fractures, obstetrics and urology in Nassau.

Dates have been definitely set for courses in pediatrics for Montgomery, Otsego and Schoharie; general medicine in Jefferson and St. Lawrence; syphilis in Washington and Warren; and diseases of the heart and lungs in Columbia, possibly including Dutchess-Putnam.

Arrangements are being made for courses in obstetrics or pediatrics for Allegany, Broome, Cayuga, Chenango, Montgomery, Oneida, and Tompkins, possibly including Livingston.

Maps showing our detailed educational activities are incorporated in this report.

Effort is now being made to stimulate in Albany, Buffalo, Rochester, Syracuse, Utica and Yonkers, a Practical Lectures Series such as has achieved phenomenal success in the counties of Kings and Queens.

PUBLIC HEALTH

Our Committee has initiated and is guiding a diphtheria prevention campaign in the county of Schenectady. Their local Committee, organized with Dr. Edwin MacD. Stanton as Chairman and Dr. Howard A. Gilmartin as Secretary, originated in the County Medical Society, but included representatives of the city and state health departments and civic and welfare organizations interested in public health.

Their activity is based upon the following principles which we consider essential to the complete success of any plan for the betterment of public health:

The medical profession is the one always present, all pervading, constantly active and always available medical force in any community. The county of state medical society, representing organized medicine, speaks for all the medical professions, whether they are a part of organized medicine or not.

All public health movements, no matter how well organized, finally reach a point where progress is no longer possible without the assistance of the medical profession. We believe that this reflects not only the opinion of our Committee but the ideas of state and county departments of health and possibly voluntary health agencies as well.

In the long run the real benefits of an individually applicable method such as the T-A procedure must be measured in terms of the benefits derived by the individual and those immediately interested in the individual. If a procedure of this kind is to be a permanent success, it should be very nearly salable on its merits to those most concerned.

Immunization of those unable to pay for medical service should not wait for the development of any program, but details for handling this phase of the subject should receive the approval of the county medical society. In Schenectady arrangements can be made whereby free cases can be cared for by the physician of their choice after certification by the health nurse or investigator familiar with the individual case.

The hazard of sickness and death from diphtheria is approximately equal to that of automobile accidents (15.3 to 14.1 Metropolitan 1926 experience). In Schenectady, with a preschool death risk of less than one in 1,500 per year per individual child, we are not dealing with a risk of a magnitude such as usually excites the average parent to any great amount of fore-sighted activity. Actually there have been no deaths from diphtheria in several months, yet with almost a zero danger immunizations are proceeding at a rate nearly twice that of the birth rate of the community. A permanent rate equal to about 90 per cent. of the birth rate will represent approximately 100 per cent. success. Work will be carried on from year to year without an unsustainable amount of effort.

Most county societies have endorsed the general immunization idea, but so far as we know, no definite program has been developed except in Erie, Montgomery, Orange, Schenectady and the five county societies of the City of New York.

PRESS COOPERATION

Syndicating of medical information for popular distribution through the press is an excellent idea, but with our present limited organization it is still impracticable. Plans are now being made, however, to place the Hygeia clip sheet in the hands of editors of the larger newspapers of the State.

We welcome the assistance of all agencies organized in the interest of public health, yet we feel that the main burden of publicity must fall upon the physician, individually, or as organized in state or county groups.

ORGANIZATION AND EXPENSES

The office of the Committee is in the Library Building of the Medical Society of the County of Kings, which generously gives us space and provides us with secretarial help of a high order, at the cost only of hourly stenographic service. A heavy correspondence has been handled with despatch, and an excellent file of state-wide facilities and opportunities for graduate medical education has gradually accumulated.

To date about $2,000.00 has been expended, approximately $1,200.00 for small honoraria and traveling expenses of teachers, and the balance for secretarial service, office supplies, telephone calls and telegrams. We have requested an official audit of our accounts.

The State Department of Health has borne the cost of most of the lectures in obstetrics and pediatrics, and is continuing to respond to our request for such courses where they have not already been given.

Our most urgent need is for competent full-time secretarial help to relieve the Chairman of the vast amount of detail work which has demanded an unusual amount of time and effort. The burden has been heavy, not only upon the Chairman but upon the 65 men who have cooperated in our teaching plans.

Planning courses by correspondence alone is not always practicable. Lecturers may be found and assigned readily enough, but the needs and wants of county societies and their experience with previous courses can only be ascertained by visits to the field. Arrangements for new courses, with suggestions for adequate publicity might well be made at the same time.

Our progress has been satisfactory. At the last meeting of the Council on Medical Education and Hospitals of the American Medical Association our plans were favorably received. A few county societies have not availed themselves of the opportunities offered them, while a few others, notably Kings and Queens, are carrying on graduate medical education without our assistance. The demand for new material comes from those counties where our activity has been greatest. As we cover the field, we look forward to elaboration of our plans.

Respectfully submitted,

CHARLES A. GORDON, *Chairman*
GEORGE F. CHANDLER
LOUIS A. FRIEDMAN
FRANK D. JENNINGS
WILLIAM D. JOHNSON
CHARLES STOVER
EDWIN MACD. STANTON
MARTIN B. TINKER
HERMAN G. WEISKOTTEN

March 15, 1927.

REPORT OF THE COMMITTEE ON ARRANGEMENTS

To the House of Delegates:

Gentlemen:

Arrangements for holding the One Hundred and Twenty-first Annual Meeting of the Medical Society of the State of New York at Niagara Falls, May 9th to 12th, 1927, have been completed by the Committee on Arrangements as far as possible at this date.

Meetings will be held in the Niagara Hotel, corner Jefferson Avenue and First Street; St. Peter's Church, northwest corner of Jefferson Avenue and Second Street; Prospect House, northeast corner of Jefferson Avenue and Second Street; and K. of C. Home, Jefferson Avenue at the head of Second Street, opposite the Prospect House. It will thus be observed that all of the meeting places are on Jefferson Avenue within a radius of one block. The commercial exhibits will be in the Prospect House.

The Delegates' Dinner will be held at the Niagara Hotel on Monday evening, May 9th.

The Annual Banquet and Ball will be held on Tuesday evening, May 10th at 7:00 P. M., in the ballroom of the Niagara Hotel. A dance will follow. The price will be six dollars per person, including the dance.

The Annual Meeting will be held Wednesday evening, May 11th, at 8:15 P. M., in the Chamber of Commerce Building Auditorium, situated at 43 West Falls Street.

The Committee on Arrangements trusts that the facilities provided for the meeting will prove suitable and convenient. It is certain that the places selected for the holding of the meetings are situated in a most charming part of the city, so that with the attendance upon the Scientific Sessions will go the enjoyment of a pleasing environment.

The Committee wishes to express its appreciation and thanks to the Rev. Philip W. Mosher, Rector of St. Peter's Church, and to the Board of Trustees for the tender of the church rooms for meeting places; they definitely declining the Committee's offer of compensation therefor.

The appreciation and thanks of the Committee are also extended to Mr. George L. Bowe, Manager of the Convention Bureau of the Niagara Falls Chamber of Commerce, whose counsel and assistance have always been available to the Committee. Mr. Bowe has offered the services of his office personnel to the Committee during Convention Week at the Registration and Information Desks, which offer the Committee has gratefully accepted.

Respectfully submitted,

FREDERICK J. SCHNELL, *Chairman.*

March 15, 1927.

REPORT OF COMMITTEE ON MEDICAL ECONOMICS

To the House of Delegates:

Gentlemen:

The following Economic Problems have been studied the past year:

1. Plans for making Periodic Health Examinations more practical for the general practitioner.
2. Methods for the solution of medical problems connected with Workmen's Compensation.
3. The relation of County Health Units to the welfare of the general practitioner.

It is the opinion of your committee that Periodic Health Examinations of apparently healthy persons presents the single greatest step for the advancement of preventive medicine. The public is in process of being successfully educated to the value of this procedure for the assurance of better physical and mental health and the prolongation of useful lives.

One of the most pressing needs, your committee finds, is to arouse general practitioners to a keener realization of the wisdom and economic advantages of real physical examinations, plus periodic re-examinations. Medical school training has not been along that line. Schools of medicine do not include health examinations in the curriculum, yet it is apparent that such examinations, for the most part, must be made by family physicians. The specialist only can help the general practitioner where his training and greater experience in his particular field make him especially proficient.

Many physicians feel themselves incompetent to make a health examination, and are loathe to undertake on a large scale a procedure that requires proper training, equipment and an intimate knowledge of systematic processes. To arouse greater interest among general practitioners and to speed the day of preventative medicine we recommend that the State Society adopt a definite program.

To that end your committee suggests the establishment of a Demonstration Clinic conducted under the direct supervision of a County Medical Society. We submit for your consideration the following plan which we believe is practical and a means of stimulating interest in health examinations and may lead to the development of a State-wide policy.

That (a) a Demonstration Clinic be instituted in a county preferably in an established physician's office; (b) with this as a teaching center all the members of a county society may be reached and at appointed hours may come in groups for a complete individual physical examination and a demonstration in the technique, system of records and follow-up course; (c) that after a period of possibly two months the demonstration may move on to another county; (d) that for a limited time the State Society provide funds to defray the expense of the demonstration, printed matter, the fee of the examiner and the nurse.

Your committee recommends that the House of Delegates approve the establishment of a Demonstration Clinic in different parts of the State in order to determine the value of the plan. We also recommend that a course of instruction in physical examinations be added to the curriculum of schools of medicine in this State.

While medical problems connected with Workmen's Compensation remain unsolved, nevertheless a movement has been initiated with a view of curbing the more flagrant impositions and abuses that have crept in.

A Compensation Conference composed of heads of various insurance companies; a delegate from the Medical Society of the State of New York; a delegate from the State Society of Industrial Medicine and representatives of labor organizations, was formed in January as the result of a preliminary meeting called by the State Industrial Survey Commission.

The Medical Society of the State of New York was invited to participate in the Preliminary meeting. President Fisher appointed Dr. P. H. Hourigan, Chairman of the Special Committee to Study Laws Affecting Workmen's Compensation and your Chairman of the Committee on Medical Economics, to attend the meeting in behalf of the State Medical Society.

Meetings of the Conference will afford an opportunity to discuss and iron out some of the existing differences of the parties in interest and may be productive of much good.

Your committee recommends that the House of Delegates approve the appointment of a representative from the State Medical Society to the Compensation Conference.

Your committee has studied rural health problems, and has reviewed arguments for and against the establishment of County Health Units. Authority to establish a County Board of Health is vested by statute in the Board of Supervisors, subject to approval by the State Commissioner of Health.

We recommend that when the creation of a County Health Unit is contemplated, the movement be initiated in the Medical Society of the County, and that the County Medical Society interest itself in securing constructive co-operation between its members, the State Commissioner of Health and the Board of Supervisors.

Your committee finds the duties of officers of several County Medical Societies and District Branches are multiplying and require increased clerical assistance beyond the financial means of County Medical Societies. We suggest that each District Branch consider the advisability of employing a field secretary to execute detail work of component county societies of each district.

Respectfully submitted,
W. Warren Britt,
Chairman.

March 15, 1927.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK

To the House of Delegates:

Gentlemen:

The Committee on Scientific Work takes pleasure in presenting the following report:

The Committee has held two meetings—one in New York City and one in Utica, where the Committee was the guest of the President of the State Society.

A glance at the program speaks for itself, as it shows the valuable subjects which will be discussed and the high type of the speakers.

The Chairman extends to the Section Officers his sincere appreciation for the splendid cooperation which they have given him; to Dr. Simpson for the valuable demonstration on Cancer which has been arranged under his chairmanship, and to Dr. Fisher, President of the State Society, for his never failing interest in the work of the Committee.

Respectfully submitted,
Samuel J. Kopetzky, *Chairman.*

March 15, 1927.

REPORT OF THE SPECIAL COMMITTEE ON MEDICAL RESEARCH

To the House of Delegates:

Gentlemen:

On behalf of the Committee on Medical Research I beg leave to report as follows:

The usual bill to prohibit experiments on living dogs, Assembly Int. No. 885, was introduced by Mr. Vaughan and referred to the Committee on Codes. This Committee held a hearing on the bill on March 1st. Your Chairman was fortunate in having the State Commissioner of Health, The Assistant Commissioner of Medical Education and Drs. Graham Lusk, Horatio Williams and W. Barclay Parsons present to ably defend the position of your Society in opposition to the proposed law. There is every reason to believe that it will not be enacted.

Respectfully submitted,
Frederic E. Sondern, *Chairman.*

March 15, 1927.

REPORT OF THE SPECIAL COMMITTEE TO STUDY THE NURSING PROBLEM

To the House of Delegates:

Gentlemen:

Your committee, appointed by the President to continue the study of the Nursing Problem, reports active investigation carried on by every member of the committee of the economic, educational and ethical development and relationship of the nursing service in the State of New York, and submits the following bill of complaints, statements of fact, arguments in support of suggested remedies, and recommendations.

The public, representing the patient, complains of unsatisfactory service in details of personal care and household adjustment, desires either the most highly trained and highly educated nurses, or some helpful persons of sufficient intelligence to carry out ordinary directions for the care and feeding of the invalided or sick in bed.

The patient complains that he is unable to pay the salary of the first group, plus food, and cannot discover a sufficient supply of the second group at prices within his means.

The patient who is sick in bed twenty-four hours a day reports that he must either be able to pay sixteen, or fourteen, or ten, or five dollars a day (plus food) for varying degrees of care or be hospitalized.

The patient who desires private nurses in private rooms in hospitals complains of being unable to avoid these maximum costs. A college professor recently reported his bill for private nurses in one of our large hospitals at $17.00 per day, four dollars a day more than his income. The patient in the ward complains that he must go there with ten, twenty or forty others in order to be able to pay his way. The hospital cannot keep him through his convalescence and he returns to his home still needing nursing care that he cannot buy at a low enough price to be covered by the family budget.

Doctors complain that nurses are unwilling to serve every sort of patient, will not go to obstetrics, or contagion, or male patients, or babies, or night duty, or twenty-four hour duty, or by the month, or suburban patients, or go to the country, or prepare and serve patients food, or keep the patient's room cleaned, or perform other comforting domestic service.

Doctors complain that some nurses are too highly educated to be nurses, are unwilling to follow the spirit or the letter of medical orders, substitute their own opinions for those already expressed by physicians, change or omit medication without seeking advice, assume undue responsibility, undertake diagnosis, treatment of minor cases, advise surgical measures, designate operators, and invade the field of the general practitioner.

Doctors complain that schools of nursing feed the nurses so much undigested theory and relegate so much practical work to servants that many nurses are quite unable to adjust themselves to homely conditions. One man says: "Your high class nurse does not know how to poach an egg."

Nurses complain of over-much menial labor, of exhausting work, of long hours, of excessive extra-nursing demands, of irregular living, of loss of social opportunity, of seasonal occupation, of an average of eight months work out of a year, representing an average maximum wage, if they receive $8.00 per day, of $1,920 a year, that they reach this maximum immediately upon graduation, if ever, and experience a diminishing scale of average employment to a little past their fiftieth year of age, when they are worn out and have failed to provide a future for themselves through savings or pension.

Forty per cent of them are planning to leave private duty nursing to enter public health or industrial or institutional nursing or commercial life for three reasons: first, to secure regular yearly employment, second, an eight-hour day with regular vacations and Sundays and nights for rest and recreation, and third, a prospect of providing for sickness and old age. They express no regret at leaving the household service of the rich but only an acute sense of loss in their financial inability to enjoy the privilege of serving the poor. They say they "love nursing" but cannot afford to continue it.

Hospital heads complain of unreasonable housing demands for nurses' homes, of an overloaded curriculum, of the inflexibility of the State Department of Education.

Your committee sympathizes with the complaints of the public representing the patient whose needs offer the immediate and most important reason for this study. Your committee believes that the complaints of the doctors are only justified by individual experiences in contact with unusual atypical personalities that are occasionally met in all professions, even in the medical profession.

Your committee believes that the complaints of the nurses reflect the economic evolution of a group of workers sincerely trying to render the best possible social service. Our reports from large schools of nursing that their classes are well filled prompts us to ask why young women should enter a difficult and disappointing profession which their older sisters are leaving.

Criticism of a state department is always a fair game. We cannot believe that the Department of Education occupies unassailable ground with the smug complacency of frozen perfection. If it did it would be dead. We are sure that it is very much alive to the restless, changing order and would welcome active agitation of all these problems with a hope for progress. Nursing housing is an acutely painful subject to those who are constructing or adapting living quarters for the convenience and comfort of nurses, but there must be a remedy which can be found in good-natured conference. So also the much discussed curriculum, which like other curricula is so overloaded that it can only be followed superficially, if at all, should be discussed by a committee composed of physicians and nurses uniting in a common effort to propose a simplified constructive useful substitute—a long and difficult piece of work.

Your committee has asked for sample curricula from specialists and as only one has so far been submitted we have no justification for detailed discussion.

A study of the supply of nurses reveals no shortage for the state as a whole, an abundant supply for cities, and faults of distribution seriously affecting rural districts. It would seem that no artifice could be devised to correct this condition; fifty-seven per cent of our people are urban and the population will continue to flow to and from towns following purely economic leads. Strategically placed hospitals and good roads would seem to be the only relief available for the rural counties.

A census of nurses and the distribution of nurses' services dated January 12, 1927, is divided into classes as follows:

Student Nurses, Private Duty, Institutional, Executive, Public Health, Industrial, School Nursing, District Visiting, Tuberculosis, Maternity.

Seventy-eight (78) per cent of the total are student nurses, private duty and district visiting nurses, all giving bedside nursing care. Outside of this census are a large number of nurses who have graduated from schools of nursing in other states and are not registered in the state of New York, who are carrying on their profession through commercial registries, private hospitals and so on, and the hundreds of so-called undergraduate and practical nurses who are giving some sort of nursing care. It is safe to estimate that there is at least one person to every two hundred (200) of the population of this state who is practicing with the title of nurse or attendant. There is no shortage of nurses in the large cities. The county of New York has one registered nurse to every 217 of its population.

The following table* constructed from official records shows the number and distribution of nurses in New York State and the ratio of nurses to population.

Investigation seems to show that the nursing problem is concerned not so much with supply and demand as with distribution and economics. As one man said, there is no lack of nurses, but a lack of people who can afford to pay for their services. This does not mean that the registered nurse is overpaid; it means simply that the nursing service provided does not meet the nursing needs of the patient. While the doctors complain of a nursing shortage, the nurses say they are idle during a quarter of their time. There is evidently a lack of coordination somewhere.

In recent years the supply of bedside nurses has been decreased by the fact that many nurses go into special fields. Some nurses have also limited their services by selecting types of duty rather than being willing to work whenever and wherever called. Moreover, there has been a great deal of luxury nursing. A registered nurse is called for a mild case of illness or retained as a companion after the need has passed. She is called to care for children while the mother goes away. In the early days the bottle of medicine, not the nurse, cured the patient. Nowadays the appreciation of the personal care of the patient has increased and the physician orders a nurse without regard as to whether or not the patient is able to afford one. The family, anxious under the strain of illness, wishes to leave nothing undone that might make for the patient's comfort. Or perhaps the nurse is employed simply as a matter of social prestige. It is true now as in the past that the people who can afford servants can also afford nurses. It is largely the white collar man who for economic reasons is without a nurse and is complaining. Is some of the apparent

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* See page 472.

DISTRIBUTION OF NURSING SERVICE IN NEW YORK STATE ON JANUARY 12, 1927

BASED ON NUMBER OF ANNUAL REGISTRATION CERTIFICATES ISSUED TO DATE

Counties	*Population*	*Student Nurses*	*Private Duty*	*Institutional*	*Executive*	*Public Health*	*Industrial*	*School Nursing*	*District Visiting*	*Tuberculosis*	*Maternity*	*Total*	*Ratio*
Albany	197,138	143	263	77	39	18	9	15	13	6	12	595	1- 331
Allegany	38,815	0	15	5	3	2	10	1	2	0	0	38	1-1021
Bronx	872,168	221	149	91	22	7	3	9	20	20	4	546	1-1597
Broome	135,060	103	143	79	23	3	21	12	7	3	13	407	1- 331
Cattaraugus	73,778	27	50	25	10	27	0	3	1	4	1	148	1- 498
Cayuga	65,344	31	84	18	3	0	3	2	3	2	1	147	1- 444
Chautauqua	128,100	37	112	37	11	6	2	5	7	4	1	222	1- 577
Chemung	72,292	121	103	30	11	7	4	5	6	3	1	291	1- 248
Chenango	35,610	0	17	7	1	1	0	1	0	2	0	29	1-1227
Clinton	46,145	62	57	15	8	3	2	2	1	0	1	151	1- 305
Columbia	42,726	37	39	11	6	1	1	3	2	5	0	105	1- 406
Cortland	31,051	32	66	9	1	1	0	2	1	1	1	114	1- 272
Delaware	43,452	0	10	1	0	0	0	2	1	0	0	14	1-3103
Dutchess	99.028	110	114	88	10	8	3	12	4	4	3	361	1- 274
Erie	693,616	672	659	284	98	16	36	36	50	13	15	1,879	1- 368
Essex	32,042	30	29	21	5	1	1	1	1	12	0	101	1- 317
Franklin	45,915	15	30	13	12	3	0	3	0	24	0	100	1- 459
Fulton	46,028	24	65	6	4	1	0	4	3	0	1	108	1- 425
Genesee	43,420	0	20	11	2	0	1	2	3	1	2	42	1-1033
Greene	28,207	0	13	1	0	0	0	2	1	1	0	18	1-1567
Hamilton	4,242	0	0	0	0	0	0	0	0	0	0	0	
Herkimer	66,708	16	43	17	7	4	5	4	2	6	1	105	1- 635
Jefferson	85,776	70	99	35	20	1	1	3	1	2	4	236	1- 363
Kings	2,203,991	861	1,406	464	191	43	80	58	90	26	33	3,252	1- 677
Lewis	24,713	0	3	1	0	0	0	0	0	0	0	4	1-6178
Livingston	39,264	15	11	15	9	2	0	1	1	0	1	55	1- 713
Madison	40,807	20	30	8	1	3	1	4	0	0	0	67	1- 609
Monroe	392,174	419	465	173	75	23	34	58	25	10	7	1,289	1- 304
Montgomery	61,385	41	47	13	12	3	3	9	1	2	2	139	1- 441
Nassau	207,640	39	131	22	27	2	0	28	9	1	6	265	1- 783
New York	1,945,029	1,613	4.581	1,269	717	151	169	88	178	65	93	8,924	1- 217
Niagara	133,437	85	84	38	16	0	22	8	1	3	4	261	1- 511
Oneida	196,486	223	245	103	28	9	12	8	12	5	2	647	1- 303
Onondaga	276.009	381	273	86	33	25	14	24	18	0	7	861	1- 320
Ontario	55,240	150	129	35	12	1	2	1	3	2	3	338	1- 163
Orange	125,629	62	126	59	16	6	3	11	3	2	3	291	1- 431
Orleans	30,692	0	3	7	1	1	0	1	0	0	0	13	1-2360
Oswego	71,404	31	43	15	4	1	6	2	1	5	3	111	1- 643
Otsego	47.404	0	45	21	2	3	0	3	0	1	0	75	1- 632
Putnam	12,500	0	6	5	0	1	0	3	0	0	0	15	1- 833
Queens	713,891	152	300	78	49	14	20	15	18	18	7	671	1-1063
Rensselaer	118.429	170	166	30	17	7	5	5	6	3	3	412	1- 287
Richmond	138,277	33	70	35	12	5	5	10	14	10	6	200	1- 691
Rockland	56,479	0	21	12	4	0	1	5	1	1	0	45	1-1255
St. Lawrence	91,806	141	54	41	5	3	1	3	1	0	4	253	1- 362
Saratoga	65,606	34	56	16	6	0	5	3	3	1	0	124	1- 529
Schenectady	116,708	67	127	17	7	5	4	16	5	7	3	258	1- 452
Schoharie	21,565	0	2	2	0	1	0	2	0	0	0	7	1-3080
Schuyler	13,456	0	3	3	0	1	0	0	1	0	0	8	1-1682
Seneca	25,363	34	26	68	8	1	0	0	0	1	2	140	1- 181
Steuben	82,175	36	62	28	5	2	2	4	4	1	2	146	1- 562
Suffolk	143,208	60	73	158	20	0	1	18	0	3	2	335	1- 427
Sullivan	40,192	0	8	5	0	0	0	1	0	4	0	18	1-2232
Tioga	26,111	0	12	0	0	4	0	0	1	0	0	17	1-1535
Tompkins	39,559	47	61	19	10	2	3	5	1	0	3	151	1- 261
Ulster	83,052	50	83	19	2	4	0	6	0	1	1	166	1- 500
Warren	34,070	36	61	7	3	3	0	1	4	2	0	117	1- 291
Washington	46,661	9	20	12	1	2	4	4	1	2	3	58	1- 804
Wayne	51,785	0	7	6	0	2	1	2	0	1	0	19	1-2725
Westchester	425,798	228	475	159	88	19	8	45	35	10	11	1,078	1- 394
Wyoming	30,827	0	6	2	2	1	0	0	1	0	1	13	1-2371
Yates	17,668	0	18	6	1	0	0	1	1	0	0	27	1- 654
Total	11,162,151	6,794	11,519	3,935	1,685	460	508	583	567	300	273	26,624	1- 419

shortage due to the changing conditions of the past ten years which have so squeezed his salary that the cost of a nurse is practically prohibitive?

Hourly nursing offers a partial solution of the problem, a solution that has as yet hardly been tried except among the very poor. That paid hourly service at reasonable rates is professionally practical and socially respectable is an idea that doctors would do well to foster among their patients. By this means the patient is saved the salary of a full-time R. N. and the nurse is released for more necessary duties. Organized hourly nursing should prove most satisfactory also from the nurse's point of view, as it will provide her with more regular work at definite hours with regular pay and provision made for vacations and time off.

In connection with the extension of hourly nursing, we might do well to study the activities and practical operation of the visiting nurse associations. Hourly nursing is not at all a new idea; it has simply never been widely developed among the people who are able to pay. With the poorer classes this type of nursing service has been in successful operation for years and the mechanism for handling the work has already been developed and tested in actual practice. We are not suggesting that a new experiment be tried, but that the activities of a successful "going concern" should be enlarged or duplicated.

In the official registries in Buffalo and Brooklyn hourly nursing is now being offered and is utilized to some extent, but the public has not yet come to understand and appreciate the value of this kind of nursing and so it has been very little in demand. If the doctor will explain the hourly service to his patients and assist them to make use of it in suitable cases, the public will gradually become accustomed to the idea and take it as much for granted as they now do the 20-hour or 12-hour nurse.

A considerable part of the work of many visiting nurse associations is done in cooperation with insurance companies. Initiated by the Metropolitan Life Insurance Co. in 1909, this service has spread to almost every state in the union and has been attended by very satisfactory results on both sides, to the company and to the policyholder alike.

A very interesting report from the Utica Visiting Nurse Association shows the extent to which they work with the insurance companies as well as giving a very good general idea of their activities. During one year (Nov. 1, 1925 to Nov. 1, 1926), 69.2% of the 45,786 visits made by the Association were paid for by the insurance companies. Patients paid in full for 6.5% and in part for 3.1%. The remaining 21.2% of visits were made without charge.

Another possible factor in the solution of the question is some form of nursing aide. There is a weight of evidence to support the opinion that a subsidiary nurse is greatly needed, though the trained attendants provided for by law in this state do not seem up to the present time to have supplied the need. One reason for this is that not enough women have taken the training as yet to make any appreciable difference. Evidently something must be done to make the field more attractive. The chief difficulty, however, is that the attendants in many cases practice independently after graduation at nurses' fees. This practice, of course, must be stopped. It has been suggested that the highest weekly rate for a trained attendant should be $25.00. The most feasible means of regulating this and other matters is probably through central official registries.

And here is the most immediately practicable tool for attacking the whole problem, one which has already been successfully tried in Buffalo, Brooklyn and other places, and is now being used in Chicago. Here is a way by which all classes of nursing service may be honestly dispensed according to need. The registered nurse may find private duty, institutional or public service work, or hourly nursing; the nursing aide may be kept busy in the line for which she is really suited at a fee appropriate to her training; and undergraduates, graduates of unregistered schools and practical nurses all may be properly cared for. A bill has passed the Legislature in New York providing that nurses' registries shall give to the applicant and send to the employer a card stating the salary and qualifications of the applicant, thus safeguarding the public and the registered nurse against abuses arising from the demand for high salaries by unqualified persons.

The text of the amendment reads as follows:

"The term 'nurses' registry' means and includes the business of conducting any agency, bureau, office or other place for the purpose of procuring, offering, promising, or attempting to provide employment or engagements for nurses of any kind, or any place used as a lodging house for nurses, the keeper of which receives telephone calls or messages of any kind relative to the employment of such nurses and transmits such messages or calls to a nurse lodging in his or her house.

"Every nurses' registry that sends out any person to render nursing service shall give to each applicant and also send to the employer of such person within twenty-four hours of the time of employment a card stating the salary and qualifications of such applicant, also the name and place of the hospital and the length of time of service therein, or other experience in nursing if not in a hospital, and whether such person is a graduate, trained, certified, registered, undergraduate, or practical nurse, or trained attendant and if a graduate, trained, certified, or registered nurse or trained attendant, there shall also be stated on such card the number of the annual registration certificate issued to such nurse or trained attendant by the regents of the University of the State of New York for the current year and a copy of such card left on file for reference in the agency.

"In registering any graduate nurse or trained attendant such nurses' registry shall place on its file a statement showing the number and date of the last annual report of such nurse and trained attendant as shown by the annual registration certificate issued by the regents of the University of the State of New York. Such file records so kept by such nurses' registry shall be open to inspection by any authorized agent of the University of the State of New York and such agency shall submit the list in full upon request of such agent."

The bill is especially in the interest of the public which employs the nurse, but which now has no means of knowing the character of the stranger who comes to the bedside of the desperately sick, of the delicate child who needs tender care, and of the helpless invalid.

The bill is also in the interest of the doctor, who has assumed a responsibility in advising or insisting upon nursing care, and who will have some reasonable assurance by credentials that his directions will be faithfully carried out according to the ability of the certified person who will be sent from the certified registry. In fact the bill is a step toward officially controlled certified registries which may prove a most practical help in the solution of the nursing problem.

Moreover, an official registry under a competent, well-paid socially-minded nurse who knows from personal experience the details of nursing procedure, can do a very valuable work along the line of supervision. Nurses are almost the only group who go out from their preparation at the age of perhaps twenty-one and practice henceforth without any supervision and without being permanently responsible to any one. A properly organized central official registry might do much to improve the morale of the profession. Good nurses might be stimulated to retain their ambition, nurses deficient in certain lines might be encouraged to take special courses to round out their training, nurses who became careless in the performance of their duty might be discovered and warned. In no other way can such a high standard of service be maintained.

Another important way to increase the supply of nursing service is through group nursing in hospitals. This has already been successfully tried in some cases and where the experiments have not been successful the failure was not due to any inherent impracticability in the plan but in most cases to unreasoning prejudice. There is certainly no practical reason why one nurse should not care for three convalescent patients in adjoining rooms, thus reducing the patient's charge and increasing the available supply of nurses by two. If the nurses, doctors, hospitals and patients will make an honest attempt to cooperate on this point, there is no question but what the result will be satisfactory to all concerned.

As nursing service becomes better distributed, the present supply of nurses will reach farther. What is true of the question of supply and demand today will not, we hope, continue to be true. Good nurses will always be said to be scarce, for they will always be the ones whose services are most in demand, but as long as nurses complain of a large amount of unemployment, it hardly seems possible that there can be any real widespread shortage except in times of unusual sickness. Employment in this field will always have a seasonal curve, but the same may be said of farming, building and even the practice of medicine.

Is it not the most important duty of this committee to make immediate efforts toward the better distribution of the nursing service already available? Let us repeat that no untried innovations are being urged. Hourly nursing has been proved feasible by the Visiting Nurse Associations. It is no more difficult to organize and district a city for privately paid visits than for free or contract ones. Let this work be extended to those who are able to pay for the amount of nursing they require but who cannot afford the full time of a registered nurse.

Group nursing has always been done in wards and one *student* nurse has been expected to care for five to eleven patients. Surely a *graduate* ought to be able to care for three in adjoining rooms. Or must the patient choose between a ward bed and a private room with two special nurses? Is there to be no other alternative?

The chairman has submitted the following definition of a basic nurse to be trained in two years which has met with wide approval:

> "The basic nurse is a graduate who has completed a general hospital training school course in the theory, practice and art of nursing in two years, is fitted to nurse patients either in a hospital or at home, and is eligible for the degree of Registered Nurse."

But if there is no general shortage of nurses, is there any point in recommending for the registered nurse a course of training shorter than 28 months? Various doctors who have been questioned on the subject recommend periods of training ranging from eight months to three years, with a majority favoring the 28 months' course already adopted in several states. Many instances can be cited to prove that the number of applicants increases not as the standards are lowered but as they are raised. The quality of course is improved. It is true that some doctors feel that too much education diverts the nurse's attention from the personal needs of the patient and causes her to usurp the doctor's prerogatives, but is this not a matter of the individual reaction of a particular nurse? Someone has said that nurses are not over-trained but over-educated. A better social adjustment might be promoted by a constant insistence throughout the course on teaching the art of nursing by demonstration, while less attention is paid to the purely didactic side. Those who do not favor a shorter course declare that the didactic content of a two years' or a three years' course is practically the same, but the extended period of actual bedside work is what makes the difference between a really good nurse and a merely ordinary one.

It is interesting to note that in 25 states a three years' course is required by law, and in three of these states—Maryland, Oregon and Utah—the student nurse must also have graduated from high school before she enters the training school. Three states require 28 or 30 months in training, and 18 require two years, while five state that the nurse must be a graduate of an approved training school. Twenty-one states require that the student nurse shall have had one year high school, 16 states two years, and five require high school graduation; while three states stipulate the completion of a grammar school course only, and six have even lower requirements.

There remains always the open question whether a subsidiary nurse can be or should be provided for the care of mild or chronic cases. It has been suggested that possibly the older nurses might care to undertake chronic cases at a smaller rate of pay in view of the more steady employment.

The nursing question would seem to be a perennial one. For years it has been studied by nurses' organizations and medical societies all over the country and all have reached much the same conclusions, but what has been done about it? The problem seems very little nearer solution than it was four years ago when the very stimulating report of the Rockefeller Committee was published. Very few experiments appear to have been tried even in directions that promised positive relief. The organization of any change in the present scheme of nursing service evidently presents tremendous difficulties. But with the active and whole-hearted cooperation of doctors, nurses and hospitals the inevitable changes in the plan of private duty nursing can be worked out and the public can be educated to a more economic and economical use of the time of the registered nurse. It is for us to be pioneers in this work.

Your committee submits the following recommendations:

1. The establishment of official nurses' registries in every county of this state.
2. That every county society develop plans for the official approval of registries which meet satisfactory standards to be erected by the county society.
3. Sincere efforts toward co-ordination of all nursing services in each county.
4. Endorsement and encouragement of visiting nursing service.
5. Thorough trial by all of the members of the Medical Society of the State of New York of hourly or part-time nursing with broad publicity of its methods and possibilities.
6. Group nursing in hospitals.
7. That the period of training be twenty-eight (28) months, the first four months to be devoted to concentrated study of fundamental Anatomy, Bacteriology, Physiology, Chemistry and Dietetics, and that the succeeding two years be devoted as far as possible to teaching the art of nursing by demonstration, participation, and practice.
8. That a committee be formed to study the curriculum, the committee to be composed of three physicians, three nurses, and one representative of the Department of Education who shall be neither physician nor nurse.

Respectfully submitted,

N. B. Van Etten, M.D., *Chairman,*
E. Eliot Harris, M.D.,
Andrew Sloan, M.D.,
J. Richard Kevin, M.D.,
George W. Kosmac, M.D.,
George R. Critchlow, M.D.,
George E. Beilby, M.D.,
Arthur S. Chittenden, M.D.,
Walter H. Conley, M.D.

March 15, 1927.

REPORT OF THE SPECIAL COMMITTEE TO STUDY LAWS AFFECTING WORKMEN'S COMPENSATION

To the House of Delegates:

Gentlemen:

Your Special Committee to Study Laws Affecting Workmen's Compensation reports progress.

Primarily the work of your Committee during the past year has been of an educational character. There are, however certain tangible results which evidence a growing recognition of the Medical Profession by legislative and administrative governing bodies, which undoubtedly will lead to a better comprehension of all the problems involved unless the probable imminent benefits to the Profession are nullified by apathy and lack of understanding.

Your Honorable Body will recall that the previous work of this Committee resulted in the presentation to the legislature of 1926 of what has come to be known as the Workmen's Compensation Procedure Act. This Act was introduced solely for the purpose of study and after a year of discussion and criticism your Committee is of the opinion that no better plan for the recognition of the Medical Profession has been devised, and we adhere to our recommendation of last year that the State Society officially endorse the measure and urge its passage by the legislature.

It is the opinion of your Committee that nowhere in our scheme of government is there a like opportunity for the Medical Profession to display a patriotic citizenship; that nowhere is there similar opportunity for the Profession to prove its willingness to assume the manifest obligation which a humanitarian law has put upon it; that never before has there been a time when patriotism and humanitarianism called so compellingly or with so much reason.

There is no intention on the part of your Committee to reiterate what it has said before or to rehash the happenings of the past year, nothwithstanding that the year has adduced much that directly affects the Medical Profession, even within the limited scope of the work of this Committee. We have felt that the importance of workmen's compensation from the medical standpoint has been underestimated when it has not been ignored. Your Committee has consistently refused to contemplate the problem from the practical viewpoint, and has maintained an attitude which is believed to be consistent with the high ideals and ethics of the Profession. But during the past year the practical aspect has been emphasized to such a degree that your Committee feels it cannot further ignore it and that practicality must be considered as well as ideals.

The New York State Industrial Survey Commission, a legislative body, has made the most sweeping investigation of the subject of workmen's compensation with, however, negligent attention to the medical problems. Yet it is an outstanding fact as evidenced by the report of this Commission, that from the standpoint of sordid dollars and cents the ideals of the Medical Profession are affected to an extent that demands immediate attention. One of the astonishing things stressed by the report of the Survey Commission was that workmen's compensation in New York State alone involved an expenditure of more than sixty million dollars ($60,000,000.00) annually, and that of this gigantic sum twenty-three (23) per cent. was expended for medical costs. Ordinary arithmetic shows that this means that approximately fifteen million dollars ($15,000,000.00) annually constitute the takings of the Medical Profession and its allied interests. Where has this money gone? How was it expended? What has been the effect of the Compulsory Expenditure of that great sum upon the Profession? Your Committee cannot give you the answer. Yet your Committee believes that the compulsory expenditure of that sum of money puts upon the Medical Profession generally the duty of upholding and safeguarding the ideals which have been built up over the centuries and seeing to it that not the faintest breath of scandal results from this contact with Mammon.

The Industrial Survey Commission itself recognized that there was a danger involved. As one of the expedients for checking possible abuses that might arise under the administration of the workmen's compensation law, the Commission called together a conference calculated to include all parties in interest. For the first time, so far as your Committee has been able to ascertain, a legislative body officially recognized the Medical Profession and both the Medical Society of the State of New York and the New York State Society of Industrial Medicine were represented. As a result of that preliminary conference a permanent body was set up, to be known as the "Workmen's Compensation Conference," and two doctors were given places on the Board—the Chairman of the Committee on Economics of the State Society, Dr. W. Warren Britt, and the Chairman of your Special Committee which makes this report. At the time of writing this report the "Workmen's Compensation Conference" has held but one meeting, an organization meeting, at which Henry D. Dayer, a former industrial commissioner and executive secretary of the Survey Commission, was made chairman.

These things are touched upon merely as indicative of the trend. Yet your Committee believes that even such slight gains as these will be nullified if the State Society decides upon or continues a negative policy in connection with this great subject.

As a practical solution of this problem your Committee stands upon its report to your Honorable Body of last year. We recommended that the Society endorse by adoption the plan laid down in the proposed Workmen's Compensation Medical Procedure Act. That Act was permissive in all its organization detail and mandatory only wherein it related to these special administrative details that bade fair to bring the Profession into disrepute, such as conflicts of medical testimony and kindred subjects.

The State Medical Advisory Council and the District Medical Advisory Councils were just what the names implied—advisory bodies without definite administrative powers which were expected to function efficiently and become an instrument for good mainly through the force of public opinion backed by the ethics of the Medical Profession. Your Committee still believes that the plan is workable; that it is entirely devoid of political aspect; that it constitutes an obvious assumption of a patriotic obligation which belongs to the Medical Profession and that its greatest good will manifest itself in a humanitarian way for the benefit of those unfortunates for the relief of whom the statute was designed.

The problems presented by the Workmen's Compensation Law are continuing. The place occupied by the Medical Profession is still vague and uncertain. The importance of all of it is obvious. Your Committee commits the entire subject to your Honorable Body for such action as you may deem advisable and necessary.

Respectfully submitted,

H. P. Hourigan, *Chairman.*

March 15, 1927.

REPORT OF COMMITTEE TO MAKE A STUDY OF HEART DISEASE

To the House of Delegates

Gentlemen:

Herewith is submitted the preliminary report of the Committee "To Make a Study of Heart Disease."

Your Committee met for organization, preliminary discussion and planning on February 25, 1927, and April 1, 1927.

Two methods of attack have been planned; one to study mortality and the second to inquire into the morbidity.

The study of mortality will be made from the registered statistics in the office of the Department of Health, and from records of autopsies in hospitals. The mortality figures will include those filed according to the nomeclature of the International Causes of Death and numbered as follows:

51. Acute articular rheumatism.
74. Cerebral hemorrhage and apoplexy.
87. Pericarditis.
88. Endocarditis and myocarditis—acute.
89. Angina pectoris.
90. Other diseases of the heart.
91. Diseases of the arteries.
92. Embolism and thrombosis.
128. Nephritis.
129. Brights.

This information must be arranged to show by state, counties, cities and rural divisions, sex and age, studies of two samples of 1,000 certificates of a recent period and of a period ten or fifteen years before, to determine the trend of diagnosis. The autopsy records for a generous sample must be studied to learn the actual heart damage from the viewpoint of etiology.

To obtain information of morbidity, it will be necessary to make contact with many organized groups—military, hospital, school, college, industry and, if possible, pre-school, to demonstrate a continuous age incidence, from birth to death.

Preliminary inquiries of the State Department of Health, State Department of Education, State Board of Charities, State Department of Labor, Division of Medical Charities of the State Board of Charities, State Department of Mental Hygiene, Metropolitan Life Insurance Company, New York State Society of Industrial Medicine, and Visiting Nurse Service of the Henry Street Settlement, have developed very cordial responses and promises of cooperation. The collection of the information will require considerable clerical assistance, as well as specially skilled statistical training and experience.

In order to purchase the statistical skill, the Committee recommends that the Trustees be requested to put at the disposal of the Committee, for the statistical compilation and study of the mortality records, a sum not to exceed $2,000. For the employment of a statistician, skilled in hospital investigation and study of hospital records, who can make contact for the study of death certificates and autopsy records as made at the hospitals, a separate appropriation must be made. This will require a higher order of training and experience, as well as considerable travel to different hospitals in the State, and it is requested that a sum, not to exceed $5,000 be made available for this purpose.

In view of the great importance of the problem presented to the Committee, and the need of time to make contacts, collect, compile and correlate the information, it is requested that the Committee be continued and provided with the funds requested.

Respectfully submitted,

Robert H. Halsey, *Chairman,*
John Wyckoff, *Secretary,*
Bernard S. Oppenheimer,
Harold E. B. Pardee,
Louis F. Bishop,
Hermon C. Gordinier,
Edward C. Reifenstein,
Nelson G. Russell,
William H. Lohman.

March 15, 1927.

REPORT OF COUNSEL FROM FEBRUARY 1, 1926 TO FEBRUARY 28, 1927

To the House of Delegates:

Gentlemen:

Counsel herewith submits his report for the period of thirteen months beginning February 1, 1926, and ending February 28, 1927.

This is the writer's first full year as counsel of your society. It has been a full year in more ways than one. The past thirteen months have given him an opportunity to gain a keener insight into the manifold problems with which the medical profession always is confronted. As he has gone about his various duties, in conference with your officers, committees, representatives and individual members, as he has appeared for you before individual county societies, before your board of censors, executive committee, the council, in trial and appellate courts, in legislative halls and in the executive chamber, he has been impressed by the high standards and fine ideals of your profession and has been encouraged to put forth the best he had in furtherance of its worthy aims. Not only has he been given opportunity to observe and study the problems of the profession as a whole, but the problems which confront many individual practitioners in their daily work. Your counsel cannot fail to express here at the beginning his appreciation and gratitude for the kindliness, good-will and the loyal cooperation which have been accorded him by the profession generally and also by its individual members, with many of whom strong ties of personal friendship have been formed by reason of the multifarious duties which have devolved upon him and his frequent opportunity to champion the cause of medicine in general and the good name and professional standing of individuals before courts and juries.

The work of the year divides itself into three main divisions: first, the legislative activities; second, counsel's work with the officers, committees and individual members of the society; and third, the actual handling of malpractice actions before courts and juries and in the appellate tribunals.

Legislation

In the legislative field the past thirteen months have witnessed the consummation of the most constructive effort ever perhaps attempted by your or any other medical society,—the enactment of the Medical Practice Act of 1926. This progressive law, with the terms of which all of you are so familiar and concerning which your counsel has spoken and written so fully, is looked upon throughout many of the states of the Union and in Canada as a standard and a model for progressive public health and medical legislation. Too much credit cannot be accorded to your officers and committees who took the laboring oar in the formulation and promulgation of this statute.

In connection with this legislation your counsel attended meetings and conferences of committees and officers of the State Society and representatives of the state departments and other public officials, and appeared on several occasions before the legislative committees and before the Governor, presenting arguments on behalf of the medical profession in support of the passage of the Medical Practice Act, and rebutting the contentions of the chiropractors and other cultists who did all within their power to defeat this remedial legislation. Your counsel likewise opposed the passage of the various chiropractic bills by presenting the reasons why such legislation would be detrimental to the health and general welfare of the people of this State and why their ill-considered bills should not find a place on our statute books.

From time to time during the past and present legislative sessions your counsel has received from Chairman Dr. Henry L. K. Shaw and his efficient legislative committee, bills introduced in the legislature affecting the medical profession or seeking rights or recognition on behalf of the various faddists, cultists and other enemies of the public health. An enumeration of some of these proposals would form a valuable contribution to any anthology or analysis of wit and humor were it not for the fact that such measures carry an element of tragic warning to the honorable practitioners of the healing art as to the extent active groups within this State are seeking, for their own selfish gain, to undermine the medical profession and endanger the health of our people by playing upon human credulity or ignorance. These various measures have been analyzed by your counsel and he has expressed his views and rendered his opinions upon the legal phases that were involved.

At the last session of the Legislature a resolution was adopted providing for the appointment of a joint committee of the Assembly and the Senate to investigate and inquire into the practice of chiropractic. Until the latter part of December, 1926, no steps were taken by this committee to function under the resolution. On December 22 and 23, 1926, hearings were had by the committee at which the chiropractors introduced evidence. The next meeting was had on January 27, 1927. Hearings were then had on February 3rd at Albany and on February 4th at New York City, at which the opponents of chiropractic introduced evidence. At the various conferences with the representatives of the society and at the hearings, your counsel or attorney attended and participated therein. A well considered program or course of action was devised and carried out. It was decided that the question should be presented to the legislative committee, so far as possible, from the point of view of the public health by those officially charged with its protection. Following out this program, the witnesses who gave personal evidence before the committee consisted of Dr. Matthias Nicoll, the State Commissioner of Health; Dr. Louis I. Harris, Commissioner of Health for New York City; Dr. Augustus S. Downing, Assistant Commissioner and Director of Professional Education; Dr. Harold Rypins, Secretary of the State Board of Medical Examiners; Dr. Frederick Parsons, Commissioner of the State Department of Mental Hygiene; Dr. William D. Cutter, Dean of the Post Graduate Medical School (former Secretary of the State Board of Medical Examiners); and Mr. George J. Nelbach, Executive Secretary of the State Charities Aid Association. These gentlemen, so well qualified to express authoritative opinions, gave testimony to the effect that the licensing to practice any phase of medicine by those whose educational qualifications were far below the standards of the State Department of Education, and whose lack of knowledge prevented them from making a proper diagnosis and therefore of carrying on a proper treatment, would be a serious, fundamental and dangerous jeopardy to the health of our people. In the most direct and unequivocal fashion these gentlemen testified that there was no need for further legislation and that they were unalterably opposed to any law looking to the licensing of chiropractors which directly or indirectly failed to require that they possess the educational qualifications now in force for the practice of medicine. Supplementing this testimony evidence was likewise given by Dr. James E. Sadlier, president-elect of your society, and Dr. James F. Rooney, a past-president of your society. And there was likewise offered and introduced in evidence a report of upwards of two hundred and fifty pages on the subject of chiropractic prepared pursuant to a resolution of the New York County Medical Society, which report was compiled by your former counsel, Mr. George W. Whiteside, and your attorney, Mr. Robert Oliver. The report consisted of an analysis of chiropractic textbooks and of answers to hypothetical questions as to the therapeutic value of chiropractic propounded to Dr. N. E. Brill, Dr. Charles H. Chetwood, Dr. John A. Fordyce, Dr. Isidore Friesner, Dr. V. P. Gibney, Dr. Arnold Knapp, Dr. William H. Park, Dr. Charles H. Peck, Dr. Wendell C. Phillips, Dr. A. J. Rongy, Dr. Reginald H. Sayre, Dr. Royal Whitman and Dr. Charles A. Elsberg. The hypothetical question propounded to these eminent physicians contained an analysis of the teachings of chiropractic and sought an opinion of its scientific or therapeutic value. Each of these distinguished men, in response to that hypothetical question, unqualifiedly condemned chiropractic as unsound. This opinion was not only presented and received in its entirety, but Mr. Robert Oliver testified as a witness in explanation of the report, giving an analysis of its contents, of its character and of its findings. In addition to all this there was the testimony of Mrs. Sarah M. Ahern, a patrolwoman of the Police Department of the City of New York, who was assigned to the office of the District Attorney of New York County to investigate violations of the Medical Practice Act. She testified to having visited a number of chiropractors and of having been diagnosed as suffering from numerous ailments when in fact she was in perfect health.

At the conclusion of the hearings a memorandum of law was prepared by your counsel and submitted to the committee showing that the practice of chiropractic constituted "the practice of medicine" within the meaning of the Public Health Law, and further that the Medical Practice Act of 1926 did not change the definition of the practice of medicine which has been in force for twenty years.

Counsel Work

During the period of this report your counsel has prepared for publication in the society's journal articles in the nature of editorial comment. The editorials have included the following:

The Chiropractor and the Drugless Practitioner.
The Proposed Medical Practice Act of 1926.
The Germ Theory and the Chiropractor—A New Judicial Revelation of the Charlatan.
Individualism—Its Merits and Its Dangers.
Character the Real Basis of Professional Confidence.
The Webb-Loomis Bill Becomes a Law.
The Doctor Carries On.
The Doctor as a Citizen.
The Doctor and the Will.
The Year's Work Begins.
The Art of Giving Testimony.
Disciplinary Powers and Functions of the State and County Societies.
Criticism of Physicians by Physicians.
The Supreme Court of the United States Limits the Practice of Medicine.
Let Us Face the New Year with Unity and Concord.
The Grievance Committee Gets Under Way.
Arbitration One of the Most Important Powers Vested in the New Committee on Grievances.

As in the past, counsel has digested, and there has been published in the Journal, reports upon malpractice actions which have been disposed of by your counsel. The case reports published during the previous year are as follows:

Pregnancy—Pyelitis Subsequent to Delivery and Resultant Hysterectomy.
Claimed Diagnosis of Gall Stones Instead of Appendicitis.
Action for Services Rendered—Malpractice Counterclaim.
Fractured Elbow—Impairment of Function.
Laceration of Hand and Infection of Hand and Forearm.
Tonsillectomy—Local Anaesthesia—Breaking of Needle.
Infection of Finger.
Failure to Remove Stone in Operation upon Gall Bladder.

Delay in Diagnosis of a Fracture.
Diagnosis of Stone in Urinary Bladder and Prostate Gland Enlargement.
Bronchial Pneumonia—Resolving Otitis Media.
Encephalitis.
Third Degree Burns or Tropic Ulcers.
Fibro-Sarcoma—Roentgen Reaction.
Collection of Bill—Malpractice Counterclaim.
Mastoiditis Complicated by Otitis Media and Tonsillitis Followed by Death from Endocarditis.
Hypodermic Injection—Broken Needle.
Claimed Burn from Therapeutic Lamp.
Sinusitis—Brain Abscess.
Tonsillectomy—Hemorrhage.
Tonsillectomy—Lung Abscess.
Mastoiditis Following Influenza—Collection of Bill—Counterclaim.
Laceration of Thumb Followed by Infection Resulting in Loss of Function of Hand.
Claimed Improper Treatment of Infection of Face and Eye.
Inguinal Hernia—Subsequent Femoral Hernia.
Fractured Femur—Slight Overriding—Callus Formation—Subsequent Open Operation and Lane Plating.
Fracture of the Elbow—Workmen's Compensation.

The editorials and case reports thus prepared for publication in the JOURNAL by your counsel covered from two to six pages in each of the issues of the JOURNAL and consisted of about sixty pages of printed matter or approximately fifty-five thousand words. The preparation of the editorials required a considerable amount of time and necessitated research into the facts and the law of the subjects written upon. Likewise the digesting and reporting of the cases previously disposed of required a careful review of the facts in each case and a careful preparation of the digest.

Inquiries from various sources for advice and opinions upon various subjects are being constantly received by your counsel. These inquiries come from county societies, officers or committees of such societies, members of the society in various parts of the State, associations allied to or interested in medical subjects and from lay persons seeking information upon medical or medico-legal matters. These inquiries are made by personal calls, telephone calls and correspondence. Some of the inquiries which have been a matter of correspondence are as follows:

Communication as to a member's right to defense and coverage under the group plan of insurance.
Communication relative to Chiropractic-Naturopathic Protective Association.
Inquiry with reference to the right of a physician to disclose information received by him in the course of treatment of a patient.
Inquiry with reference to the status and standing of a physician.
Inquiry requesting advice in a malpractice action and of the law governing the liability of the physician therein.
Inquiry with reference to the matter of the Health Commissioner furnishing lists of newly-born legitimate children to a milk commission.
Inquiry seeking information as to the source of obtaining a serum for the cure of high blood pressure.
Inquiry as to the length of time roentgenologists are required to keep X-ray films.
Request for advice from a clinic as to the right of the clinic to give information to charitable organizations of the results of Wassermann tests of its patients.
Communication with reference to the statute requirements of registering still-born children and advice thereon.
Inquiry as to the liability of the medical board of a hospital in a malpractice action instituted by a patient receiving treatment at its free ward.
Inquiry and advice as to the right of a physician to exhibit at medical meetings motion pictures of a patient.
Inquiry and advice as to the Statute of Limitations governing actions of malpractice.
Communication requesting advice as to the rights of a physician to collect for services rendered in an emergency.
Communication and advice as to the rights of a physician under the group plan of insurance.
Communication from a physician as to his rights to receive payment of a bill rendered to the State Insurance Fund for treatment of a Workmen's Compensation case.
Request for information as to the status of the Union Gospel Mission.
Advice to a physician as to the effect of receiving a reduced amount of his bill in full payment of the same.
Inquiry and advice to a physician with reference to the license fee of the Internal Revenue Department for narcotic drug license.
Inquiry and advice as to the right of a physician to defense who is charged with violation of the Harrison Narcotic Law.
Communication with reference to the illegal practice of medicine by a physician.
Advice to a physician as to the confidential relation existing between physician and patient.
Communication from a county society as to the medical operations of an industrial plant.
Communication requesting advice as the medical practice act of Texas.
Communication from a physician requesting advice as to the confidential relation existing between a physician and patient.
Communication and advice on what is the legal basis in the United States indicating that a child is born alive.
Inquiry from a physician as to his rights to defense and coverage who is charged with violation of the Harrison Narcotic Law.
Communication from superintendent of a sanitarium as to the liability of such sanitarium for injury to a patient and advice thereon.
Communication as to the jurisdiction and authority of county societies to discipline its members.
Communication from a county society as to the right of the society to proceed against a member for violation of medical ethics.
Communication from a physician with reference to the presentation of his bill before the State Industrial Commission and the refusal of the Commission to honor the same.
Communication and advice from a physician as to his legal right to engage an assistant to care for his practice during his absence in Europe, which assistant was a graduate physician of a foreign university but unlicensed in this State.

All the preceding inquiries and communications required considerable investigation and frequently involved the giving of legal opinions and careful analysis and interpretation of legal questions.

Your counsel and attorney both personally attended the last Annual Meeting of the society and either your counsel or attorney attended at each of the meetings of the Council and Executive Committee during the year.

From time to time the Executive Committee and the officers of your society have sought the advice of counsel upon various subjects and matters pertaining to the society's business. Your counsel has had occasion to advise the Council, Executive Committee and the officers of your society, among other questions, upon the following:

Whether or not the names of the living ex-Presidents of the state association should be included in a published list of the living ex-Presidents of the society.
Advice as to the response to be made to a communication from a county society.
Preparation and advice in connection therewith of a questionnaire of the American Medical Association with reference to malpractice defense.
Advice and opinion upon the duty of a suspended member to pay dues or assessments during the period of suspension.
Advice concerning the powers of the Council to adopt a resolution of censure of the action of a county society.
Advice and opinion upon the rights of physicians charged with violation of the Harrison Narcotic Law.
Advice as to the action of the Executive Committee with reference to the publication in the JOURNAL of resolutions of a county society.
Advice and opinion as to the right of the Department of Internal Revenue to compromise claims and the effect of such compromise upon a physician's license.

In this matter your counsel made an extended review of the facts in the matter, the Harrison Narcotic Law, the regulations promulgated by the Department of Internal Revenue and the decisions of the United States Supreme Court adjudicating upon various provisions of the Harrison Narcotic Law as the same applies to the physician and prepared and rendered to the Executive Committee a written opinion including the results of the research on the subject.

Your counsel attended the Annual Meeting of the Homeopathic Medical Society and made an address upon the Legal Hazards of the Practice of Medicine.

Your counsel also attended a meeting of the Bronx County Medical Society and addressed said meeting on the Medical Practice Act of 1926.

Your attorney was a guest at another meeting of the Bronx County Medical Society and spoke to the members at that meeting on the subject of the practice of medicine from a legal viewpoint.

Your counsel and your attorney also attended meetings of the Society of Medical Jurisprudence and discussed the liability of the roentgenologist and the control of cosmetics.

Your counsel also attended and addressed the meeting of the Bay Ridge Medical Society.

BY-LAWS

Your counsel received communications from the Executive Committee with reference to the amendment of the by-laws of the Erie County Society and examined the proposed amendments thereto and gave an opinion with reference to such amendments.

Your counsel also received communications from and advised the Cortland County Society as to various powers and rights under its by-laws.

Amendments to the by-laws of the Oneida County Society were also examined and passed upon by your counsel; likewise proposed amendments to the constitution and by-laws of Queens and Bronx County societies were the subject of examination and opinion to these societies by your counsel.

BOARD OF CENSORS

During the year appeals in two matters have been had from county societies to the Board of Censors.

An appeal was had by one Dr. Benjamin from the action of the New York County Society in refusing to admit said Benjamin to membership. On this appeal a hearing was had before the Board of Censors. Witnesses were examined and cross-examined and the proceedings were stenographically reported and transcribed. The matter of the appeal was then examined by your counsel and advice and an opinion given to the Board of Censors with reference thereto. In connection with this matter your counsel also had correspondence with your officers and with the attorney for the appellant and he likewise made an examination and digest of law with reference to the rights of an applicant for admission to membership in a medical society.

In the matter of Dr. C. Everett Field an appeal was taken from the action of expulsion by the Queens County Society. In this matter a hearing was had before the Board of Censors and the appellant and his attorney heard on the appeal. The appellant and his witnesses were examined by your counsel. The minutes of this hearing were stenographically reported and transcribed, which minutes, together with the various exhibits—which were rather voluminous—were examined by your counsel. A conference was had with the Board of Censors and advice given by your counsel in the matter. Your counsel also prepared for the Board of Censors an opinion and judgment in this appeal.

LITIGATION

The work performed by your counsel which affects the individual practitioner most directly falls under the head of litigation. It is a matter of importance to every doctor that sound laws should be sponsored and unsound legislation opposed, that the unlawful operations of cultists and faddists should be prevented and that the dignity and high standing of the medical profession should be upheld; it is a matter of importance to the individual practitioner that the affairs of his society should be well and efficiently conducted under sound and constructive advice. But there is nothing more important to the individual physician than the protection of his good name, reputation and the fruits of his labor. A malpractice action strikes a body blow at all that the doctor has spent his life in building up—his good name, his reputation and the accumulation of his professional earnings. By such an assault not only is the doctor personally attacked, but through him the welfare and happiness of his family.

Through frequent editorials, addresses at medical meetings and in private conferences, your counsel has sounded the warning and has called attention to the dangerous trend of the times. Your counsel in his last Annual Report declared:

> "Perhaps it might not be out of place here to notice how fortunate the doctors have been thus far in avoiding large verdicts. The trend of the times in every other field of negligence law is unquestionably toward larger damages where juries find in favor of the plaintiff. The present value of the dollar is always taken into consideration, so that it is safe to say where a jury ten years ago might have rendered a verdict for ten thousand dollars, it will now award double that sum or more. Juries have become increasingly liberal with the money of defendants in every other field of negligence cases when they find against them."

What is the reason for this trend? Undoubtedly there are many reasons. Among these might be cited the fact that through the medium of workmen's compensation laws a large field of negligence litigation has now been cut off. That class of lawyers who formerly spent much of their time in bringing damage suits on behalf of injured workmen against their employers, have cast about for other avenues of revenue and in their search have come to the conclusion that the ingratitude or avarice of patients could be crystallized into malpractice actions against the physicians who have treated them and that this offered a new opportunity in the negligence field.

Then, too, there has been of recent years a signal growth in the ranks of specialists. These men do not come into such personal and close relations with their patients as did the old family practitioner, thereby losing perhaps some of the personal regard which patients of a former generation entertained for the old-fashioned general practitioner. Unquestionably the actual benefit which these old-time doctors performed for their patients was not of as great scientific value as the more highly specialized services that now are rendered; yet the old doctors, of whom Oliver Wendell Holmes so beautifully has written, acquired a hold upon the affections and the regard of their patients which usually prevented the patient from assailing the physician who had done all within his power to help him.

Again, where specialists are engaged and paid on the basis of their exceptional knowledge, more of skill and learning is required of them by the courts and more is expected of them by the patient. Thus where heretofore judges have been charging juries, under the rule of *Pike against Honsinger*, that a doctor is required to possess and exercise that "degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices," now, where specialists are sued, the judges universally charge their juries that it is not enough for the specialist to possess and exercise the knowledge and skill of the average physician, but that he must possess and exercise that degree of skill and learning which a specialist in his particular field should possess and exercise.

Furthermore, in some of the cases specialists have been charged with failing to accord the necessary after-care. The failure to render after-care and to make visits at the patient's home often (whether justified or not) arouses the anger of the patient or his family and has been the basis of malpractice actions. Of the six cases tried during the past year in which verdicts for the plaintiffs have been rendered, two were based upon the failure of the defendant specialist to render the necessary post-operative care.

And these very things have been the basis of the twenty-five settlements which were effected during the period of this report. In this connection it should be said that none of the settlements made were effected without the full consent, acquiescence and approval, and in many instances at the urgent request of the physician sued. Before any of these settlements were recommended or made, an exhaustive study of the facts, the medicine and the law in each particular case was scrupulously made, as a result of which your counsel was convinced that the best interests of the physician would be served by the consummation of the settlement effected. The policy of the State Society and of its individual members never to make a settlement for mere nuisance value—never to effect a compromise unless the evidence of liability is clear and overwhelming, has been sedulously followed and adhered to.

In addition to all of the foregoing reasons, two others should be cited—the increasing use of mechanical appliances and the counterclaim actions which arise in response to physicians' suits for services.

The increasing use of mechanical appliances is a fact well recognized by the medical profession. In the various fields of diagnosis and especially in the field of rehabilitation of industrial injuries, mechanical devices increasingly are used. Among these appliances might be mentioned quartz and alpine lamps, bakers of various types and other forms of electrical-therapeutic apparatus.

Many physicians feeling justly aggrieved at the non-payment of their fees, have brought actions for their services. An action for professional services may be brought at any time within six years after the services have been rendered. An action for malpractice is barred after two years from the date on which the cause of action arose. Where physicians have brought actions for services within two years, they frequently have been confronted with a counterclaim charging malpractice, and which action is not yet barred by the Statute of Limitations. Frequently these counterclaims represent a mere expression of ingratitude and an attempt to defeat the just claim for services. Whatever the motive underlying the counterclaim may be, the effect of the counterclaim is to inject the doctor into a malpractice suit which must be defended.

Table I, which follows, is a summary of the number of suits instituted and disposed of during the period reported on.

TABLE I

Number of Suits Instituted and Disposed of:

	Instituted 1926-1927	Disposed of 1926-1927
1. Fractures, etc.	15	12
2. Obstetrics, etc.	22	26
3. Amputations	1	1
4. Burns, X-ray, etc.	15	14
5. Operations—abdominal, eye, tonsil, ear, etc.	33	33
6. Needles breaking	3	2
7. Infections	10	7
8. Eye infections	4	5
9. Diagnosis	14	8
10. Lunacy commitments	3	2
11. Unclassified—medical	24	15
12. Loss of services, wife, child	22	21
Totals	166	146
Further Comparisons		
Actions for death	13	11
Infants' actions	13	8
	26	19
How Disposed Of		
Settled		25
Dismissed, discontinued, abated or tried (verdict for defendant)		112
Judgment for plaintiff		6
Appeals (judgment for defendant)		3
Totals	166	146
Pending on February 28, 1927	375	

An analysis of the foregoing table shows that the number of malpractice actions instituted is ever on the increase; that during the period reported on, 34 more suits were instituted than during the period reported on in the last Annual Report. The number of suits instituted during this period is 20 in excess of the number of suits disposed of and therefore adds that number of cases to those now pending disposition.

Even those who have been defendants in malpractice actions probably do not fully realize all the work that is entailed in the handling of one of these cases. In every case a statement, not only of the defendant doctor, but of each witness having knowledge of the facts is secured. Experts are interviewed. A research into the medicine is made. There is an examination of the particular legal authorities bearing on the question. All of this work entails repeated conferences and a consistent study and application, much of which effort is never seen by the doctor but is reflected in the results which are secured.

Your counsel cannot speak too highly of the splendid assistance and loyal cooperation that is constantly accorded to him by Mr. Robert Oliver, your attorney, whose knowledge and experience with this type of cases is literally invaluable.

In addition to Mr. Oliver your counsel has in his office two other able lawyers—Mr. Lorenz J. Brosnan and Mr. Maxwell C. Klatt, both of whom devote the major part of their time to work of the physicians.

Mr. Brosnan has been associated with your counsel and with the predecessor firm of Whiteside & Stryker for upwards of seven years and has assisted your counsel in the trial of many cases.

Credit should also be given to the other employees of counsel's office, all of whom have become familiar with the work and who have rendered their loyal and enthusiastic cooperation.

Table II which follows, is a comparison of the members insured in 1925 and 1926 with those of 1927.

The figures speak for themselves, but it is a satisfaction to note that the number of insured doctors has increased 3 per cent. during the past year; that is to say, 6073 members are now insured as compared with 5711 in the preceding year. In nearly all of the larger counties an increasing appreciation of the group plan is displayed by the larger number availing themselves of its benefits. Thus, for example, in Kings County there are now 57 per cent. of the doctors insured as compared with 52 per cent. for the preceding year or a total number of 933 insured members as compared with 831,—an increase of 102. In New York County 59 per cent. of the doctors are now insured as compared with 57 per cent. for the preceding year or a total number of 2069 as compared with 1961,—an increase of 108. In Queens County 58 per cent. of the doctors are now insured as compared with 54 per cent for the preceding year or a total number of 194 as compared with 146,—an increase of 48. In Westchester County there has been an increase of 6 per cent. In Bronx County there has been an increase of 2 per cent. Decreases are noted in a few of the counties, notable among which is Montgomery County with a decrease of 18 per cent. Albany County shows a decrease of 3 per cent.

Your counsel repeats what he has so often said both privately and in editorials: *The group plan is working well.* The plan is one which deserves and has received the increasing support and appreciation of your members. In this connection the resolution adopted at the last meeting of the House of Delegates is worthy of reiteration:

"Your Committee expresses its gratification on the increased percentage of members insured and expresses the hope that the percentage will materially increase each year. We furthermore hope that each delegate will use his influence to

TABLE II

Comparison of the number of members insured in 1925, 1926 and 1927 and the number of members in the county societies and the percentage of insured members.

	1925			1926			1927		
Counties	No. of Members in County Society	No. of Members Insured	Percentage Insured	No. of Members in County Society	No. of Members Insured	Percentage Insured	No. of Members in County Society	No. of Members Insured	Percentage Insured
Albany	225	126	56	218	125	57	220	120	54
Allegany	33	8	24	33	9	24	31	9	29
Bronx	631	275	44	648	309	48	683	347	50
Broome	99	51	52	102	52	51	113	55	48
Cattaraugus	45	27	60	49	28	57	56	26	46
Cayuga	52	32	62	55	32	58	58	32	55
Chautauqua	82	31	38	93	33	35	93	33	35
Chemung	49	33	67	49	38	77	53	37	69
Chenango	35	16	46	36	15	42	35	17	48
Clinton	32	16	50	33	15	45	31	16	51
Columbia	36	19	33	37	20	54	37	19	51
Cortland	25	11	44	23	8	35	23	8	34
Delaware	20	1	5	19	1	5	22	3	13
Dutchess-Putnam	115	51	44	116	61	52	115	63	54
Erie	653	443	68	672	424	63	672	425	63
Essex	23	11	48	26	11	42	24	12	50
Franklin	51	17	33	48	15	31	49	16	32
Fulton	37	23	62	37	24	65	40	24	60
Genessee	23	9	39	27	9	33	28	8	28
Greene	22	12	55	23	10	43	23	10	43
Herkimer	55	30	55	55	32	58	51	31	60
Jefferson	69	38	55	77	37	38	82	35	42
Kings	1,570	757	48	1,590	831	52	1,613	933	57
Lewis	14	5	36	13	5	38	11	5	45
Livingston	29	10	34	31	11	35	28	7	25
Madison	32	15	47	35	17	49	32	13	40
Monroe	434	235	54	436	231	53	435	240	55
Montgomery	52	24	46	52	23	44	50	13	26
Nassau	105	51	49	112	57	50	134	82	61
New York	3,338	1,735	52	3,415	1,961	57	3,500	2,069	59
Niagara	85	48	56	86	51	59	94	60	63
Oneida	189	77	41	191	77	40	187	76	40
Onondaga	312	164	51	321	166	51	324	176	54
Ontario	71	39	55	74	35	47	75	38	50
Orange	104	65	63	105	65	62	101	66	65
Orleans	17	3	18	18	5	27	18	6	33
Oswego	53	33	62	53	30	57	54	24	44
Otsego	42	24	47	43	27	63	43	28	65
Queens	244	122	50	272	146	54	329	194	58
Rensselaer	106	56	53	107	56	52	115	55	47
Richmond	74	39	53	72	38	53	77	40	51
Rockland	39	22	56	41	20	49	42	23	54
St. Lawrence	58	19	33	62	21	34	65	22	33
Saratoga	44	27	62	47	22	47	43	25	58
Schenectady	109	91	83	117	86	74	123	93	75
Schoharie	18	7	39	18	6	33	16	6	37
Schuyler	11	5	45	11	5	45	10	4	40
Seneca	21	4	19	23	5	22	21	5	23
Steuben	75	37	49	79	39	48	72	43	59
Suffolk	108	40	37	112	46	41	110	43	39
Sullivan	29	18	62	30	18	66	29	19	65
Tioga	27	9	33	27	10	37	25	9	36
Tompkins	59	22	37	61	27	44	59	28	47
Ulster	64	25	39	63	29	46	67	29	43
Warren	38	25	66	40	26	65	40	28	70
Washington	40	17	43	39	16	41	38	17	44
Wayne	36	16	44	38	18	47	37	20	54
Westchester	308	135	44	324	153	44	326	165	50
Wyoming	26	9	35	26	9	35	26	9	34
Yates	17	13	76	17	15	88	21	14	66
	10,410	5,323	51	10,677	5,711	53	10,829	6,073	56

TABLE III

COLUMNS A:—Being Limits of Liability for Any One Claim or Suit

LINES B:—Being Limits of Liability For All Claims or Suits During Any One Policy Year

	$5000	$10000	$15000	$20000	$25000	$30000	$40000	$50000
$15000	24.00	29.76	34.56					
20000	25.20	30.96	35.76	38.88				
25000	26.16	32.00	36.72	39.84	42.72			
30000	27.12	32.88	37.68	40.80	43.68	45.84		
35000	28.08	33.84	38.64	41.76	44.64	46.80		
40000	28.80	34.56	39.36	42.48	45.36	47.52	50.16	
45000	29.52	35.28	40.08	43.20	46.08	48.24	50.88	
50000	30.00	35.76	40.56	43.68	46.56	48.72	51.36	52.08
60000	30.96	36.72	41.52	44.64	47.52	49.68	52.32	53.04
70000	31.92	37.68	42.48	45.60	48.48	50.64	53.28	54.00
80000	32.64	38.40	43.20	46.32	49 20	51.36	54.00	54.72
90000	33.36	39.12	43.92	47.04	49.92	52.08	54.72	55.44
100000	34.03	39.84	44.64	47.76	50.64	52.80	55.44	56.16

induce those not insured to join in our group plan of insurance."

Table III is a schedule of premiums for insurance. It is the same as last year and therefore requires no comment.

It is a pleasure to record our thanks for the understanding, cooperation, advice and assistance which your counsel has received from your various officers and committees. The results secured could not have been obtained without the loyal good-will and support of which your counsel has been at all times the fortunate recipient. Doctors have come forward with medical advice and testimony in support of their brethren in the profession and the opinions which they have rendered to your counsel, both privately and in court, have been of the highest scientific value and of great persuasive force before courts and juries and have largely contributed to all of the satisfactory results which have been obtained in the disposition of cases.

To Mr. Harry F. Wanvig, representative of your society under the Group Liability Plan, in large measure is due the increase in the number of policies which have been written, particularly within his own district. Constant questions arise in regard to insurance matters and he at all times has displayed a cordial willingness to give of his time and advice to your members. Likewise he has appeared from time to time before various medical society meetings and has explained the nature of the group plan and its benefits to them. The further success of the group plan depends upon the continued cooperation not only of your society, but of its individual members. Your counsel feels that Mr. Wanvig is well deserving of your continued support and confidence as your society's designated representative.

Counsel has been thrown frequently in contact with the officers and representatives of your insurance carrier and has received from them loyal and sympathetic cooperation, with a willingness to assist the doctors in their respective territories. The volume of business now carried on could not be satisfactorily administered throughout the various counties of the State without the assistance and cooperation of these representatives in the writing of insurance, in the assembling of facts and assistance in the preparation of the cases down to the point of trial.

While we should not be blinded to the difficulties and the problems which confront us, it is believed that there is every reason for facing the new year with confidence and optimism.

Lloyd Paul Stryker,
Counsel.

March 1, 1927.

REPORT OF THE COUNCILLOR OF THE FIRST DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

As President of the First District Branch of the Medical Society of the State of New York, I respectfully report as follows:

In the beginning I wish to say that by reason of stress of business it has been impossible for me to attend the meetings of the various Societies in the First District, with the exception of two, outside of my own County Society, but I have been in touch with the entire District and I feel that the First District Branch is going ahead in a satisfactory manner.

The annual meeting was held at Briarcliffe Lodge, Briarcliffe Manor, New York, on the

10th of November, 1926, and as far as I am able to find out, showed a larger attendance than any other meeting of the First District Branch in several years. It was intensely interesting by reason of the addresses by Dr. George M. Fisher, President of the State Society, Dr. Daniel Dougherty, Secretary of the State Society, Dr. Nathan B. Van Etten, Dr. John Prescott Grant, Dr. William Sharpe, Dr. Arnold Jackson of Madison, Wisconsin, and others of equal importance.

At this time I wish to extend to Dr. Samuel J. Kopetzky, Chairman of the Scientific Committee of the State Society, my personal thanks for the very excellent assistance he rendered in arranging the program for this meeting.

Previous to the annual meeting two conferences were held at the suggestions of the Executive Committee of the State Society. They consisted of the Presidents and Secretaries of the various component societies in this District, together with the Executive Officer, Dr. Lawrence, and I am very confident that these conferences were productive of a great deal of good, for in my opinion they aroused an interest in the First District Branch which we have not seen in a good many years. I certainly recommend that they be continued.

The one great trouble in the past has been that the District Branches have been more or less a one-man affair and the full force and spirit of the various District Branches have not been felt as they should have been. Closer contact between the Officers of the State Society and the various component county societies can be brought about through means such as these, and thereby increase the interest that up until a few years ago has been rather dormant.

It is impossible for the State Officers to visit all of the County Societies and it is through the means of the District Branches that they are brought in closer relation with the individual members. I believe that the past year or two has shown an awakening in the various branches that will result in a credit not only to the State Administration, but to the individual members.

Respectfully submitted,
John A. Card, *President.*
March 15, 1927.

REPORT OF THE COUNCILLOR OF THE SECOND DISTRICT BRANCH

To the House of Delegates:
Gentlemen:

The Annual Meeting of the Second District Branch was held January 7, 1927. An excellent report of that meeting has already been printed in the Journal. Two of the papers read at that meeting have also been printed in the Journal, viz: Dr. W. H. Ross' account of the activities of the Suffolk County Society and Dr. E. A. Flemming's similar paper for the Queens County Medical Society.

The Nassau County Medical Society has continued its activities of previous years and is in a flourishing condition. One feature of the Nassau County Society's organization worthy of note is the employment of a lay secretary, an arrangement that has proven very successful.

The Kings County Medical Society has continued all its activities of previous years, among which may be mentioned the Library, the program of Graduate Courses, the work of the Public Health Committee, in cooperation with other health agencies of the City, State and Nation, the Milk Commission, and the work of the Committee on Illegal Practice.

Respectfully submitted,
Joseph S. Thomas, *President.*
March 15, 1927.

REPORT OF THE COUNCILLOR OF THE THIRD DISTRICT BRANCH

To the House of Delegates:
Gentlemen:

I beg to report the activities of the Third District Branch for the year 1926 as follows:

Soon after the Annual Meeting of the State Society a meeting of the Executive Committee was called at the Fort Orange Club, Albany, as the guests of the then First Vice President, now President-elect, Dr. Edgar A. Vander Veer. There was a good attendance and a tentative program was discussed, participated in by all present, including Dr. Joseph S. Lawrence, Executive Officer, Dr. H. L. K. Shaw, Chairman of the Legislative Committee and Dr. MacFarlane, who were present by invitation.

In July another meeting was held in Hudson at the home of the Secretary, Dr. C. C. Rossman, by invitation, at which time the program was practically completed.

The Branch Meeting was held at Albany on September 25th. The attendance though not as large as I would have liked or as it should have been, was fairly good. Sixteen per cent. of the Albany County members were present, eight per cent. of Columbia County, twenty-seven per cent of Schoharie County, two from Rensselaer County, two from Ulster County, none from Sullivan County.

There were nine from Albany County not listed in the Medical Directory for 1925, five from County Societies outside the district, together with Dr. Haven Emerson, New York City, the President, Dr. George M. Fisher, the Secretary, Dr. Daniel S. Dougherty, the President elect, Dr. J. E. Sadlier, Dr. O. S. Wightman, Editor of the Journal, Dr. Frank Overton, Executive Editor of the Journal.

The program, a varied one, was carried out in full both morning and afternoon. A detailed account of the same was printed in the Journal, issue of October 1st, 1926.

The Annual Clam Bake of the Albany County Society was given in the evening at McGowan's Grove. It was largely attended and very enjoyable. A program for the ladies present was arranged. There were no dull hours during the entire day and evening.

I could not give the time that should have given to the working of the various Societies (seven in number) comprising the Branch. I visited the Society meetings of four of the counties. The majority are active and doing good work. Some I am sorry to have to report as being in a quiescent state.

Before closing my report, I would like to speak of the desirability of changing the geographical make-up of the District, if this be possible. From Rensselaer County on the north to Sullivan County on the South is a long distance, not all good roads. The member from northern Rensselaer or southern Sullivan should he elect to attend a meeting held in a remote portion of either County, would, from necessity, have to be away from his work two or three days.

I desire to express my appreciation of and thanks for the attendance of the Officers of the State Society and to Dr. Emerson as well, for the valuable papers presented. To my fellow Officers I am truly grateful for the assistance given. I bespeak for Dr. Vander Veer, President-elect, the hearty cooperation of the entire membership of the Branch.

Respectfully submitted,
Charles P. McCabe, *President.*
March 15, 1927.

REPORT OF THE COUNCILLOR OF THE FOURTH DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

I herewith submit my annual report of the Fourth District Branch.

This Branch, with the exception of the cities of Johnstown, Gloversville, Saratoga and Glens Falls and the Counties of Montgomery and Schenectady, might be said geographically to be within that territory known as the Adirondacks. This vast region is so well known that it needs no description. It differs from the rest of the State in many respects. The months from June to October are the only ones on the average that are free from snow. This makes getting about to see the sick a serious matter at times. The permanent medical men resident in this region are a fine type of resourceful, capable doctors.

Because of isolation and bad roads these men have lacked contact with their fellow medical men and the consequent inspiration such contact brings.

The momentum and attraction of mass movement should not be forgotten and so far as organized medical effort can go to correct this it should be done.

For example, during the vacation period from June to October organized medicine could well afford to send some of its best men to this region to give post-graduate instruction.

The Annual Meeting held last autumn at Plattsburg was well attended and the physicians and citizens of Plattsburg proved themselves most generous hosts.

Respectfully submitted,
Horace M. Hicks, *President.*
March 15, 1927.

REPORT OF THE COUNCILLOR OF THE FIFTH DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

A joint meeting of the officers of the counties of the Fifth District Branch was held last June at Syracuse. Representatives from five counties were present and in addition, Dr. Joseph S. Lawrence.

At this meeting a program was outlined for the counties of the District. This has been well carried out in some counties and pretty well in others.

Herkimer County

They have carried out post-graduate teaching in obstetrics and plan to extend it along other lines. Their scientific program consists of papers by local men, supplemented by papers by men outside of the county.

Jefferson County

This County is most active and progressive. They have carried out an extensive program and have had well organized and well attended post-graduate courses held alternatively in Ogdensburg and Watertown. Their scientific program consists of one given once a month by local men and the next by an outside speaker. The interest is keen.

Madison County

This County has no large urban population, but men get together three times a year, during the spring and fall for a scientific meeting and then a social affair in the summer. This County has approved of the health propaganda advocated by the Society and has attempted to carry out examination of pre-school children and the diphtheria immunization as far as they are able.

Oneida County

This Society has kept closely in touch with Public Health propaganda. They are actively carrying on the annual diphtheritic campaign and the periodic examination of children. A site has been purchased for a county sanatorium. Post graduate study has been resumed. The members of the Society seem eager for this type of work. The scientific meetings have been held regularly and are most harmonious and enthusiastic.

Onondaga County

This County has adopted the policy of having some outside man of another community to address each meeting. It has also been the policy for this Society to combine some social event with each meeting. Two meetings a year are held at the country clubs where golf is enjoyed. The other two meetings are held at the hotel preceded by dinner The attendance varies between 200 and 300. The Legislative Committee has done a great deal in its effort to aid medical legislation. The Committee on Public Health is putting over a plan of yearly health examinations. They have also taken an active part in the State Society plan for diphtheria prevention. The Milk Committee continues to check up on the certified milk supply of the community.

Oswego County

Oswego County is active and sends representatives of the County meetings of the adjacent counties.

Lewis County

This County has difficulties in conducting regular meetings due largely to the small number of men practising in this County as well as to the difficulty and distances of travel.

Respectfully submitted,

Charles D. Post, *President.*

March 15, 1927.

REPORT OF THE COUNCILLOR OF THE SIXTH DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

The Sixth District Branch covers a comparatively large territory of the State and embraces approximately 8,300 square miles of territory. It is about 150 miles from its eastern to its western limit and its northern and southern boundaries are from 45 to 73 miles apart. In this territory there are 10 counties and no large cities: Binghamton being the largest.

According to the last edition of the Medical Directory of the State Society there are 620 physicians in the District of which 454 are members of their County Medical societies, a little over 73½%. This of course is not absolutely accurate as some inaccuracies are bound to occur in such compilations and changes are constantly taking place.

The percentages of memberships in the several counties run as follows: Broom 85, Schuyler 84, Tompkins 83, Chenango 76, Steuben 70, Tioga 67, Delaware 67, Cortland 66⅔, Chemung 65½, Otsego 63½.

A new alignment of territory between the eight districts which is to come before you at the May meeting, would, if passed as proposed, take Schuyler and Steuben from the Sixth District. Both counties object to this change and prefer to remain in the Sixth District.

A meeting of the officers of the Branch and the Presidents of its County Societies was held several months previous to the Branch meeting for the purpose of discussing the conditions in the District and outlining a program for the annual meeting. The result was a program of much wider interest than usual and a much better attendance. The program took up the public health activities of several County Societies. For a detailed account I refer you to pages 835 and 836 of the October number of the State Journal.

I believe such conferences of the officers of the Branch and Presidents of its County Societies should be perpetuated as a sort of Executive Committee or Council of the Branch with perhaps a two-fold object. First, to help the Councillor to get a more or less accurate viewpoint of the conditions in the various County Societies in his District. In some of the Districts (the Sixth for example), it is utterly impossible for him to visit the County Societies, or all of them especially if he is a busy man and the distances are wide.

Second, to discuss the needs and problems of the various sections of the District and how to meet them, and to assist in arranging a program for the annual meeting.

It would seem advantageous for the District Branch to discuss the many health problems and the subject of preventive medicine, and the relationship, attitude and degree of cooperation between the Medical Profession, the Medical Society, and the various lay health organizations operating in the District, with a view to better and closer relations and cooperation.

Respectfully submitted,
March 15, 1927. Wilber G. Fish, *President*

REPORT OF THE COUNCILLOR OF THE SEVENTH DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

The work of the Seventh District Branch got under way at a meeting of its officers and the presidents of its various component County Societies, held at Geneva last May, and presided over by Dr. Joseph S. Lawrence, Executive Officer of the State Society.

Dr. Lawrence explained the activities in which the State Society was engaged and outlined to us what problems could most properly be taken up by the District Branch and the County Societies. This meeting was most helpful in showing us how important some of the problems were, especially the toxin-antitoxin campaign, which was being fostered by the State Society. Dr. Lawrence emphasized that this campaign against diphtheria was the biggest thing to be done by the Society this year.

At the time of the meeting five of the seven County Societies had endorsed this movement. During the year the other two County Societies gave it their endorsement, making our District 100% behind this movement.

Our annual meeting was held on September 29, 1926 at the Geneva Country Club. Nature kindly gave us an unusually fine day, sandwiched between several rainy ones before and after that date. The physicians evidently thought that if they worked all the rainy days they were entitled to take the one pleasant day off and join their fellows. The attendance was large, being equaled by the attendance of only one other District meeting in the State.

The program was marked by two splendid papers on subjects in which the State Society was specially interested. "Auburn's Experience with Toxin-Antitoxin" was read by Dr. George C. Sincerbeaux of Auburn. This paper and the remarks by Dr. Lawrence, Executive Officer, stimulated much discussion and inquiry about the subject. Dr. B. J. Slater of Rochester gave the results of a survey of post-graduate work in the District. This report showed that the classes had been well attended and much interest shown in them. The papers on clinical subjects were, "The Early Diagnosis of Diabetes" by Dr. Floyd R. Wright of Clifton Springs, "The Importance of the Early Diagnosis of Urologic Pathology" by Dr. Henry G. Bugbee of New York City, and "Essential Hypertension" by Dr. Clayton Greene of Buffalo. The latter two readers were guests of the District Branch.

The District Branch was honored by the presence of Dr. George M. Fisher, President of the State Society, Dr. Daniel S. Dougherty, Secretary of the State Society, and Dr. Frank Overton, Executive Editor of the State Journal.

The County Societies in the District are all live and active societies. The meetings are held regularly and are well attended. Cayuga County Society holds ten meetings yearly, while the other six societies hold four a year. A committee has been appointed in the Ontario County Society to consider the plan of holding ten meetings a year.

The Monroe County Society held a series of clinics for their members in the early part of the winter. The latter society is carrying on a most active and energetic campaign to eradicate diphtheria from their communities.

It is a pleasure to report the high standards maintained by all the County Societies in the Seventh District, and the very high average attendance at the meetings.

Respectfully submitted,
Claude C. Lytle, *President.*
March 15, 1927.

REPORT OF THE COUNCILLOR OF THE EIGHTH DISTRICT BRANCH

To the House of Delegates:

Gentlemen:

The past year has been noteworthy for the activities of the County Medical Societies in the district. The anti-diphtheria campaign was endorsed by all of the counties and active work was carried on especially in Erie, Niagara and Cattaraugus Counties. Erie County has adopted a slogan, "No Diphtheria in Erie County in 1930."

The work done under the Millbank Fund in Cattaraugus County, has continued during the year. It is to be regretted that friction developed between the County Medical Society and the public health workers. This does not mean that the organized medical profession has been opposed to the demonstrations of public health measures, but rather that certain individuals have shown unfortunate lack of tact and that misunderstandings have occurred through a failure of both parties to the controversy to get together. The County Medical Society late in the year adopted a resolution declaring its willingness to cooperate in the movement. It was largely as a result of this situation that the Public Relations Committee, mentioned later in this report, was organized.

In Chautauqua County the County Committee on Tuberculosis and Public Health has been very active and public health committees have been organized in every community. This Committee plans to actively enlist the medical profession and to have it represented on the Committee in each community. The physicians of the county are entirely sympathetic with the work being done by this lay organization and it is believed that the campaign will be actively supported by the County Medical Society.

Post graduate courses have been given in Erie, Niagara, Genesee, Chautauqua and Cattaraugus Counties. It is likely that this work will be extended during the coming year. Erie County has set an example for all of the other counties in the District. In addition to the anti-diphtheria campaign, already mentioned, the Erie County Society has published a bulletin which has been widely distributed to the physicians not only of Erie County but of the other counties in the District. At a testimonial dinner to physicians who had practiced fifty years or more a genuine spirit of good will and professional enthusiasm was aroused. An attractive booklet listing the operations for clinical study in and near Buffalo was published and distributed by the Erie County Medical Society.

The Annual Meeting of the District Branch was held at the Buffalo City Hospital, and as usual was rather poorly attended. The President and Executive Officer of the State Society travelled the length of the State in order to address a mere handful of physicians at the morning session. On account of the chronic lack of interest in these Annual Meetings I believe that the most effective work of the District Branch Society will be done by round table conferences of the Executive Committee. Three of these meetings were held in Buffalo during the year, on June 3rd, August 6th and March 4th. These were evening meetings and it was found that the officers of the Society had so many topics for discussion that even an entire evening did not allow sufficient time.

At the meeting of the Executive Committee on March 4th, six of the eight Counties of the District were represented. In addition to the members of the Committee the following gentlemen were present and took an active part in the discussion: Dr. Archibald Dean, District Health Supervisor; Dr. Joseph Lawrence, Executive Officer of the State Society; Dr. George Critchlow, Chairman of the Legislative Committee of the Erie County Society, Dr. Francis Fronczak, Health Officer of Buffalo; and Dr. Hourigan of Buffalo.

The function of the Public Relations Committee of the State Society was explained and the Committee decided that each County Society should have a similar committee instructed to get in touch with the various public health agencies in the County, in order that the organized profession should be able to take a more intelligent and active part in public health work. The resolutions endorsing County Health Units, which were adopted by the Joint Committee on Public Relations of the State Medical Society and of the State Charities Aid Association were carefully considered and after full discussion the Committee approved of these resolutions. It was moved and carried that the Secretary send a copy of the resolutions to each County Medical Society in the District with the recommendation that if the plan be approved the County Societies petition the Board of Supervisors to organize a County Health Unit.

Dr. Hourigan gave a talk on the Miller Bill, and urged the Committee to do everything possible to stimulate in the County Societies greater interest in the problems of workmen's compensation. The meeting adjourned at 11 o'clock to permit some of the members to catch their trains, but so great was the interest that several of the physicians continued the discussion informally after adjournment.

Our experience with these Executive Committee Meetings, convinces me that they should be given a more prominent place in the work of each District Branch Society.

George W. Cottis, *President.*

March 15, 1927.

EDITORIAL

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For list of officers of County Medical Societies, see the JOURNAL, April 15 issue, page xxx

THE ANNUAL REPORTS

The Annual Reports of the Officers and Committees of the Medical Society of the State of New York appear on pages 451-490 of this JOURNAL. The publication of the reports in advance of the annual meeting is an innovation that was authorized by the last House of Delegates, and for it the Society has the precedent of the American Medical Association, the Michigan State Society and the societies of some other states.

The object of the advance publication of the reports is to inform all the members of the State Society regarding its activities. While reprints are mailed to every delegate before the annual meeting, yet it is hoped that every member will read the reports carefully, for they will give him a comprehension of the wide range of activities carried on, and the scope of the numerous contacts which the society makes with physicians and the public.

OUR ADVERTISERS

A periodical which is the organ of a State Medical Society must have at least three departments—scientific, organized activities and advertisements.

The advertisements are much more than the means of money making; they are educative. In regard to new books their review is educative to such a degree that most medical journals conduct that department as unbiased comments on their value, which the prospective buyers accept as authoritative.

There is a prejudice on the part of some physicians against advertisements of articles which have but small therapeutic value. But doctors will be compelled to use such products so long as human nature demands something to take or use. There still exists an *art* of prescribing although its *science* in respect to many preparations may have almost vanished.

The value of a medical journal to advertisers is in direct proportion to the number of its readers, and that may be far greater or less than the circulation figures. A children's picture paper will be read by everybody in the doctor's family,—the medical journal will be read by only one.

Doctors are interested in the advertising section of a medical journal quite as much as in its scientific and news departments. The April first issue of this Journal indexed its advertisers under seventeen headings, from abdominal supporters to waters, and every advertisement was of direct interest to the average doctor. While he might not buy some of the articles advertised, he probably has patients who would do so. Only now and then, for example, would a doctor need an invalid elevator, but he probably has several patients who would be interested in them if they knew where they could see one. Then, too, how many doctors know what an invalid elevator can be installed in a home at a reasonable price?

The advertising index of this Journal contains about the same number of references as the general index,—52 and 48 respectively in the April first issue. Note how much general information one may get from the advertisements. For example, What is the importance of food in the diet of the artificially fed infant? The answer is found in an advertising page of the April first Journal.

Read the advertising pages of this Medical Journal. The more you know about the products that are advertised, the more likely will you be to buy or recommend those articles; and the greater popularity will the Journal have among the advertisers.

EXPERT MEDICAL TESTIMONY

The doctor seeks the truth and so also does the Judge on the bench and the two opposing lawyers. But what is truth? The actors in a law court drama are the two lawyers, each bound to uphold the interests of his own client. When medical testimony is necessary, each litigant hires a physician for the express purpose of testifying regarding points favorable to his side of the case; and possibly the court appoints a third doctor to give his opinion regarding both sides. Then at the trial, each physician tells his story, usually extempore, and in an unusual and partly hostile environment. The three stories are bound to be somewhat conflicting in minor details, which the cross-examining lawyer magnifies in an attempt to discredit the witness. The system is not conducive to the development of truth, and on the other hand it magnifies the apparent disagreements among doctors until the jurymen and the public generally have come to consider that an expert physician on the witness stand is on the same plane as the ignorant laborer whose judgment, such as it is, is swayed by prejudice.

If doctors had their own way, they would settle their differences and reconcile their conflicting opinions in private before they go on the witness stand. To get the doctors to do this may seem like a Utopian dream; however the difficulty lies not with the doctors so much as with the lawyers. The physicians would be able to agree on their testimony, provided the opposing lawyers would agree to permit them to do so.

The lawyers engaged in a murder trial in Queens County set a most excellent example, in that those for the defense chose two psychiatrists, and the District Attorney two more for the purpose of determining the sanity of the accused man. The four doctors examined the patient together, and rendered a unanimous opinion that he was sane. This opinion was accepted by the lawyers and the Court and the trial proceeded without the question of insanity being raised.

The *New York Times* says:

"The procedure under which the defendant's plea was destroyed by his own alienists is a revolutionary novelty in criminal law. The profession of psychiatry for many years has rested under the reproach that a psychiatrist would testify that a man was sane or that a man was insane, according to the desire of the side which paid the fee. In this case, the alienists insisted on being free to judge the mental condition of the man in the light of their consciences and their scientific knowledge, regardless whether their findings embarrassed or aided their own side."

LECTURES ON THE COUNTY MEDICAL SOCIETY

After a medical student graduates, the county medical society takes the place of his medical school. The close social contacts which he has formed during four years of study will be reformed from among the members of the county society. The leaders of the society will take the place of his professors. The honors, activities and opportunities of the university will again be offered to him in the normal program of work of the society. The organization will offer opportunities for research, for writing, for lecturing, and teaching. It will also invite the public spirited graduate to discharge his civic duty at the time when medical work of any kind is eagerly sought by the young man just starting in practice. The younger doctor's career, planted and nurtured in the medical school, will reach its fruitful maturity in the county medical society under the influence of his older colleagues.

It would seem self-evident that medical students should be instructed regarding organized medicine and their duty and privilege to take an active part in the medical societies of the communities in which they practice. The Long Island College Medical School includes such instruction in a course of intimate talks on the civic duties of physicians.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

New York State Laboratory:—This Journal for May, 1902, contained the following item of news, coupled with a hope that has remained unfulfilled.

"The Antitoxin Laboratory of the State Department of Health, which was inaugurated in 1901, is located in the Bender Laboratory, Albany, while the animal house is located several blocks away with a capacity of fifteen large animals. The State has already made an appropriation of $20,000. The object of the laboratory is to manufacture under State control the various antitoxins for use in all State institutions and for the indigent poor. Diphtheria and tetanus antitoxins are now ready for use. It is hoped that effective antitoxin for tuberculosis, typhoid fever and various other infectious diseases may be obtained by original research. The laboratory is under the direction of Dr. Herbert D. Pease."

The same issue contains an article on the use of paraffin in surgery, especially in deformities of the face—an operation of which little is now heard. The article closes with the following observations:—

"Restoring sunken cheeks by paraffin injections should take the place of the mechanical device now used by dentists for that purpose and known as 'plumpers.' This contrivance consists of a thickening of the upper plate at the sides, to a degree that when the plate is worn the cheeks are made to bulge outward. It does not restore natural expression and is cumbersome and difficult for the patient to manipulate while speaking or eating. Paraffin will give much better satisfaction.

"The injection of paraffin is not entirely free from danger, and it is stated that abscesses have occurred, also sloughing. In one case symptoms of tetanus were observed after an injection, and another case developed evidence of pulmonary embolism. So far I have seen no unfavorable symptoms. In all the cases in which injections were given, varying from one drop to half a dram at an injection, there was no reaction and no change in the tissues."

MEDICAL PROGRESS

Treatment of Influenza.—Julius H. Hurst, writing in *The Lancet,* February 19, 1927, ccxii, 5399, recommends in the treatment of influenza a formula which did exceedingly good service in the epidemic of 1918. The remedy consists of a capsule containing quinine hydrochloride, camphor monobromate, hexamethylenamine, of each two grains, and methylene blue one grain. These drugs are well mixed and pounded up together and the capsule filled in this proportion. Smaller doses are used for children. One capsule is given at the onset of the illness, followed if necessary, in four hours by a second. Not more than four should be used in twenty-four hours; usually three capsules are all that are required, two in the first twenty-four hours and one in the second. In addition, rest in bed, elimination—laxatives—plenty of hot tea, freshly made with cream and sugar added, are indicated. No coal-tar derivatives, salicylic acid products, or other heart depressants should be given.

Professor Trumpp of the Munich University faculty, who claims never to have lost a patient with grippe during all the years of his activity, feels it his duty to impart his method of treatment to the profession at large, while still realizing that consistent good luck may have been the vital element. (*Muenchener medizinische Wochenschrift,* February 4, 1927.) He does not darken the sick room, although he protects the patient's eyes from unpleasant contacts, and he sees that the patient gets an abundance of outdoor air, which is the best remedy for the tormenting headache. Fresh and cool air is in fact a polyvalent remedy. At the same time he makes the patient comfortable and does not expose him to any draughts. He is very particular about the mattress, pillows, etc., all of which must be of firm texture and of a non-heating type. If the patient is most comfortable when propped up this should be done with books or wooden blocks rather than by endless cushions and pillows. The patient's comfort is the last appeal as well as the first consideration. In regard to drug treatment, there is certainly a poisonous principle which must be expelled from the body; and, further, drugs which we frequently give merely to meet symptomatic indications are recommended by the author as etiological remedies; he gives a mixture of benzoic acid, camphor and amidopyrine, very largely because it attacks the disease in the citadel. The author avoids all essential cold applications and finds that a very brief warm bath is grateful. He agrees with the custom of some American practitioners in giving adults a hot grog or toddy at the outbreak of the case; this especially at the close of the warm bath, to prevent chilling, which may be the more indicated because he cools the patient after his bath with a douche. The author evidently relies more on expert nursing than he does on medical, or medicinal treatment.

The Calcium Content of the Blood in Tuberculous Children.—The favorable results following the administration of calcium lactate, and at times the intravenous injection of calcium chloride, in children suffering from tuberculosis with hemorrhage, led Harry R. Litchfeld (*Archives of Pediatrics,* February, 1927, xliv, 2) to investigate the problem of calcium in the blood. The study was carried out in the children's division of the Brooklyn Home for Consumptives . The calcium in the blood was determined by the de Waard technique in five cases of primary, four cases of secondary, and three cases of tertiary tuberculosis, before treatment and eight weeks and five months after treatment. Supplementary to the usual hygiene management, these patients were given 5 grains of anhydrous calcium chloride, 1 grain of iron, and 60 minims of cod-liver oil after each meal. In addition, one tablet of parathyroid extract was given three times a day, because of the emphasis placed on the close relationship of calcium metabolism to the parathyroids. The author concludes that there is a definite calcium deficiency in the blood of tuberculous patients. The far advanced cases showed the lowest calcium content in the blood. But, while calcium is of great service in the healing of tuberculosis, it does not have any decided therapeutic value in advanced tuberculous patients, as evidenced by the fact that all the author's cases of the tertiary type terminated fatally, although there was a slight increase in the calcium content after a few months' treatment. There was a remarkable increase in the calcium content of the blood after five months of treatment in the primary and secondary cases, in some of which it reached almost the normal limit. This indicates that calcium is an important factor and should be employed as a specific, for, when the calcium content of the blood is increased to normal, the patient is helped to combat the disease.

The Course of Acute Rheumatic Arthritis after Treatment of Inflammatory Processes in the Upper Air Passages.—Östen Holsti (*Acta Medica Scandinavica,* January 26, 1927, lxv, III-IV) emphasizes the fact that, while treatment with the salicylates is usually effective in controlling an acute attack of rheumatism, relapses seem to occur as frequently as before the introduction of this drug. He has followed 35 cases of acute and relapsing rheumatic arthritis for four and a half years. In cases in which there was a history of dyspeptic troubles, suggesting infection through the gastroenteric tract, a special diet was ordered, in others, careful protein therapy was tried, and in still others, where the inflammatory process in the upper air passages was very marked, the treatment of the latter was begun before the patient became afebrile. No harmful effect was seen from starting this treatment so early. As a rule, however, no surgical treatment was undertaken until the patient had completely recovered from the acute rheumatic attack. No relapse occurred in any purely rheumatic case in a patient who had reached puberty. Relapses occurred in three cases, two of which were complicated by other diseases (hemophilia, gonorrhea), and in only one case of purely rheumatic infection. This was in a child of 10 years. The relapse was preceded by a head cold and sore throat and terminated fatally. The experience in this series of cases affords some evidence that the treatment of inflammatory processes in the upper air passages is a measure which is directed toward healing of the most important focus for the development of the relapses. Signs of general poor health were a frequent finding before as well as after the treatment. The course of the purely rheumatic disease in adults was, however, much more benign after the institution of treatment of the upper air passages than prior to this.

How Latent Foci of Tubercle Become Activated.—A. Arnstein, who is at the head of a tuberculosis sanatorium, attempts to answer this question. Among the general conditions which are reputed to possess this power of activating tuberculous foci are the acute exanthemata of childhood, whooping cough, influenza, gestation, and any others which tend to reduce the resistance to disease. The author has repeatedly seen individuals in their seventies and eighties suffer a reawakening of a tuberculosis which had become latent at the time of puberty, the foci being apical. In such cases the possibility of a reinfection from without is suggested, but all of the evidence is against such a supposition. We may, of course, in such cases speak of reinfection, but it is always endogenous. The author advances the theory that arteriosclerosis favors the lighting up of an old tuberculosis, and explains this by the assumption that arteriosclerosis notably reduces the general vigor. On the other hand, he admits that the two conditions, arteriosclerosis and reawakening of tuberculosis, may have a common origin, such as worry, excitement, overexertion, or alcoholism. Incidentally, the author explains why cancer and tubercle sometimes coexist, although in theory this should not be the case. The cancerous cachexia, which so greatly lowers vitality and resistance, certainly makes it possible for old tuberculous foci to be activated. In the present study, the author is interested exclusively in the reanimation of insignificant early tuberculous foci. He has notes of 176 patients in this group. Of the conditions which appeared to pave the way for a reawakening of the long latent apical infection, the frequency may be arranged as follows: Arteriosclerosis, 52; malignant tumor, 42; disease of the heart and aorta, 24; emphysema of the lungs, 15; acute infectious diseases, 16, and scattering, 27. It will be manifest that the author is dealing almost entirely with the reawakening of the disease in subjects over 50 years of age.—*Klinische Wochenschrift,* February 12, 1927.

Local Treatment of Erysipelas with Besredka's Streptococcic Filtrates.—K. T. Gloukhoff of the Institute of Experimental Medicine of Leningrad states that after the streptococcus of erysipelas has penetrated into the skin or mucous membrane it is propagated along the lymphatics, but if the quantity is in a certain excess there is rupture into the subcutaneous (or submucous) tissue with formation of local phlegmons and development of general sepsis. In the preparation of the filtrates the author began with an individual strain of the coccus but gradually increased the number to nine. These he cultivated for twelve days at a constant temperature of 37° C. and then passed the cultures through a Chamberland filter. The filtrates thus obtained were sown anew and so on. The final filtrates were used as dressings, as such, or mixed with lanoline and vaseline, all dressings being changed every 24 hours. The course of untreated erysipelas is notably capricious, patients often recovering spontaneously, which makes it difficult to appreciate the influence of treatment. The author obtained some control, however, by applying a dressing to certain regions only—in bilateral facial erysipelas to one-half of the face. With this check it was often possible to note remarkable response to the treatment; the treated half of the face would become normal in a short time while the untreated half showed no change. The response was not always so prompt, but in general good results were obtained after one, two, or three dressings. In some cases the filtrate was also injected into the subcutaneous tissues. Thus far 129 patients have been treated with the filtrate, but 50 of these were very mild, leaving 79 which were medium or severe. The number of severe cases treated was 26 and there was no mortality. A corresponding series treated before the introduction of the filtrates presented six of the severe type and two of the patients succumbed.—*Annales des l'Institut Pasteur,* February, 1927.

The Treatment of Infantile Paralysis.—Harry Eaton Stewart describes the benefits to be derived from physiotherapy in the treatment of infantile paralysis, which have been largely overlooked by the profession in general. A method of treatment, first employed by Dr. William Benham Snow, in the acute stage of the disease consists in the application of the Morton wave from the static machine to minimize pressure destruction in the cord. A flexible metal ribbon electrode is applied along the spine in the affected region, with a spark-gap of ten to twelve inches, in order to obtain sufficient voltage. Two other procedures of value during the active stage are the use of radiant light and the waterbath at 95° to 102° F. For many reasons radiant light and heat are to be preferred. The Morton wave may be applied with the hope of obtaining beneficial results in any case of not more than six months standing. In chronic cases adequate treatment must aid nutrition, stimulate the muscles, and reeducate nervous control. The nutrition of paralyzed and atrophic muscles may be stimulated by external heat, radiant light, the paraffin bath, whirlpool bath, superheated dry air, or diathermy. The sinusoidal wave, and galvanic and faradic currents are then helpful in minimizing the muscular atony and atrophy following nerve injury; they should be applied in sufficient dosage to produce a very few gentle contractions in partially regenerated nerves. Assistive active and passive exercises aid in keeping in function the mental and motor pathways which tend to deterioration from disuse. There seems to be no reasonable span of years which precludes the possibility of improvement. In the army there were cases of eight and ten years standing which showed improvement under this plan of treatment. Continuous treatment for at least three years is justifiable unless all progress has definitely stopped for a period of months. The closest coöperation with the orthopedist is essential to the end that proper braces and operative procedures may be instituted when needed.

In discussing this paper, Dr. William Benham Snow related his first experience with the use of the Morton wave in the treatment of infantile paralysis in the case of a boy seen two weeks after the onset of the disease. Under this treatment the boy, whose lower extremities were paralyzed, was able to walk at the end of two weeks and made a satisfactory recovery. The speaker had seen many similar cases. There was no stage of poliomyelitis in which more remarkable results were seen than in acute cases treated by the methods described. The reports of the Rockefeller Institute stated that the germs of poliomyelitis were very susceptible to light. Therefore the application of light over the spine should arrest the progress of germ development, and together with the use of the static current would probably contribute more to the relief of the condition than other methods. Dr. Stewart was entirely right, he said, as to the management of the chronic cases.—*Physical Therapeutics,* March, 1927, xlv, 3.

Diabetic and Hypoglycemic Coma.—It is perhaps not generally known that two quite different forms of diabetic coma are now recognized. One is the ordinary coma of diabetic acidosis while the other, only recently recognized, is the result of excessive reduction of blood sugar such as may result from large doses of insulin. E. Wiechmann, writing in the *Muenchener medizinische Wochenschrift* for January 8, 1927, takes up the subject of the differential diagnosis of these forms of coma. It is possible for the patient to pass from ordinary diabetic coma into the hypoglycemic form as a result of insulin. In the diabetic form the respiration is affected, while in the other form it is normal; in the former, the pulse is small and frequent but regular, while in the hypoglycemic form it is rapid and markedly arrhythmic. These two differential points make up most of our knowledge, which therefore stimulates us to the recognition of new ones, and the author thinks he has discovered one in the temperature which he has found thus far invariably subnormal and at times at the collapse level. By contrast he has found such temperatures in the diabetic form in rare cases only. According to all clinicians since Frerichs the temperature in diabetic coma is very variable and may be either subnormal or febrile. At present the numerical chance is greatly in favor of the hypoglycemic form if a patient enters the hospital with coma, for while these low figures are the rule in the diabetic they occur but rarely in the hypoglycemic form. It is of course well known—or should be—that urinary examination is not dependable, for in undoubted diabetic coma there may be no trace of acetone bodies in the urine.

Pathogenesis and Prognosis of Essential Hypertonus.—N. Tolubejewa relates three cases of arteriosclerosis and hypertonus in elderly women in whom after prolonged treatment the blood pressure was slowly brought down approximately to normal. He asks what differentiates cases of this type from the usual run of hypertonics in which the prognosis is unfavorable in this respect. There is no evidence in this group of serious organic cardiac, renal, or cerebral disease and we must regard them as functional in nature, despite the evidence of arteriosclerotic change. During the long observation periods ranging from 6 months to 2 and 2½ years, all of the known hypotensive remedies were tried out but the author attributes no benefit to any of the drugs or physical remedies with the exception of repose. The first patient suffered coincidently from peroneal paresis and was forced to lie abed, and the other two were below the standard of normal health and activity, one suffering from bronchitis of long standing with dyspnea while the other was in the initial stage of amyotrophic lateral sclerosis, and both were in a state of poor nutrition. These two patients were both of the asthenic habitus. In regard to visceral disease there was no doubt as to the integrity of the kidneys, but all of the women showed some enlargement of the left ventricle and the two asthenics showed in addition organic disease of the aorta (elongation and dilatation respectively), although there was no impairment of cardiac function, and no symptoms of any sort. The chief value of these cases in the author's opinion is that they illustrate the great importance of absolute rest in hypertension.—*Klinische Wochenschrift*, February 5, 1927.

Transmission of a Drug Idiosyncrasy.—M. Lang and O. Der relate the case of a psoriatic male patient with dementia precox who after a small dose of quinine developed a generalized rash, accompanied by a temperature of 104° F. He developed the same picture every time he took five grains of the drug whether by the mouth or intracutaneously. The local application produced no reaction. One cc. of the patient's serum injected into a guinea pig and followed by quinine injection produced death in convulsions. The same fluid was next tested on rabbits, using the patient's normal serum as a control. The serum taken during the course of the quinine idiosyncrasy, when injected intravenously killed a rabbit on the eighth day. Both the animals mentioned showed on autopsy multiple internal hemorrhages. Finally a bit of skin from the patient was implanted beneath the skin of the abdomen of a rabbit, and the animal received an injection of quinine, and while some of the injection points gave negative results others gave respectively a hyperemic reaction and ulceration. This form of transmission is known technically as the passive, and has previously been obtained with iodoform, iodine, and arsphenamine. The death of the guinea pig was preceded by anaphylactic phenomena and the author believes that it is impossible to draw a line between true idiosyncrasy and anaphylaxis. In one rabbit experiment an injection of quinine preceded the injection of serum but the result was the same as when this order was reversed. The authors are at work on a monographic account of the entire subject of drug idiosyncrasy.—*Muenchener medizinischer Wochenschrift*, January 14, 1927.

Vaccination and Angina.—G. Koch writing in the *Deutsche medizinische Wochenschrift*, January 21, 1927, on vaccination against smallpox, says that in certain very rare cases we see a marked inflammatory reaction with swelling of the regional lymph nodes, an erythemato-papular eruption or generalized vaccinia. Quite recently a new form of rare vaccine injury has been described under the designations of serous meningitis and encephalitis, the nature of which is as yet obscure. In 1922 Orgler called attention to redness and swelling of the tonsils on the fifth to sixth day after vaccination, in a small proportion of which cases there was a typical follicular angina. The author made the same observation at about the same time as regarded redness and swelling of the tonsils, but for some time has seen no typical angina. The earliest period was the sixth day following vaccination and the duration was two or three days. Finally he saw a case of follicular angina with a temperature of 104° F. Orgler assumed that in such cases the tonsils were already infected and the vaccination served to activate the microorganisms. No other post-vaccinal development is mentioned except hematuria which has been known to supervene in predisposed children. While harm from vaccination is very slight, means should be taken to reduce the risk. Intracutaneous vaccination presents no advantage over the scratch method but rather the reverse. In the author's sole case of follicular angina it is of interest to note that the two previous attempts to immunize the child had given negative results, so that the author made an unusual effort to have the vaccination take. It is a remarkable fact that the younger the infant the less chance of vaccination harm, as nurslings show more resistance than older children. "Vaccinate early with but one scarification" is the author's advice.

LEGAL

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AN ERRONEOUS DECISION

On April second of this year, in the City Magistrate's Court sitting in the Borough of Richmond, Magistrate Bridges rendered a decision in the prosecution against a chiropractor which, in the judgment of the writer, was erroneous and unfortunate.

Acting under the instructions of the Attorney General, on January 24, 1927, Helena C. Brady, a policewoman, called at the office of Christian P. Eiffertsen at 56 Bay Street, St. George, Staten Island. She was accompanied by a fellow policewoman, Frances Symon. On the bulletin board in the corridor of the building they found "Room 25, C. P. Eiffertsen, Ph.C." They went to this office, on the door of which there was the sign "Chiropractor." Miss Brady was met in the outside office by a young lady who asked for her name and address and when requested to be allowed to see "Dr. Eiffertsen" replied that he was busy at the time. Miss Brady waited for twenty-five minutes and was then shown into a small booth in the rear of the office and was asked to disrobe to the waist. She was given a white smock and told to have it open at the back. "The doctor wants to examine your spine," the young lady said. She then left the room, returning in a few minutes to the place where Miss Brady was sitting and said: "The doctor will see you now." The two women then entered a small office and Miss Brady said: "Are you Dr. Eiffertsen?" and he answered "Yes." The defendant asked both of the women to be seated and Miss Brady then told him she was suffering from pains in the left shoulder and left arm between the shoulder and the elbow; that these pains had been of some duration; that she had been suffering from them for about three months; that she also had suffered pains in the back and front part of her head. "Doctor, do you think these pains will respond to chiropractic treatment?" she asked and the defendant answered: "Yes, and chiropractic treatment is just the thing you need to remove the cause of these pains." She continued: "Doctor, do you think chiropractic treatment will relieve these conditions?" to which he replied: "I know that I can cure you and if I don't I shall remove my sign; I have cured many and I do not feel that I will have to remove my sign just for one person." Thereupon the chiropractor pressed heavily upon the base of Miss Brady's right ear and said: "There is nerve pressure there and that is the cause of your headaches in the fore part of your head." He then manipulated along her vertebræ toward the middle of the back and then toward the left shoulder. At the left shoulder he pressed heavily and when his patient indicated pain he said: "This is the cause of your pain in the left shoulder and arm." He then referred to a chart on the wall where there were pictures of the human nerve system and pointing to a certain section of the chart declared: "This is where you have that pressure." He then turned to where his patient was sitting on a stool and gave her head a sharp jerk first to one side and then to the other, causing a snapping sound. Then followed a series of manipulations in various positions, horizontal and vertical. He manipulated the vertebræ and gave it certain downward thrusts, giving the patient's head a sharp turn one way and then the other. The defendant then took what looked like a skeleton of the human spine and showed his patient how the bones press together and how they were pressing on a nerve, declaring that that was the cause of the pains in the shoulder and the arm.

When the defendant was asked what his fee would be he directed Miss Brady to see the young lady in the outer office, who, when interviewed, inquired if the "doctor" had said how many treatments would be necessary. Miss Brady answered that he had not but that he said to come the following day, and thereupon the young lady said the treatment was six dollars for ten treatments. Two dollars was paid on account, for which a receipt was given.

Frances Symon, the other policewoman, had a similar experience.

Thereafter a prosecution was begun in the Magistrate's Court on the evidence of these women charging Eiffertsen with the crime of practicing medicine without a license. At the conclusion of the prosecution's case a motion was made by the defendant's counsel for a dismissal of the complaint which, after some days' consideration the Magistrate granted and on April second handed down this decision:

> "When a person, claiming to be suffering pain, seeks out another and asks for treatment for that condition, well knowing that such person does not claim to be a

regularly licensed physician, as in this case, and such person does treat said applicant by manipulating or rubbing, I can see no violation of the Statute, nor do I believe the legislature intended it to be so regarded. Otherwise, every masseur and chiropractor (so called) in the State would be put out of business.

There was, in this case, no illegal treatment or prescription.

Complaint dismissed.—Defendant discharged."

In the writer's opinion the decision was erroneous and, so far as it may be considered a precedent, it is unfortunate. Being a criminal case there is no appeal from this decision and there is nothing further than can be done with the case. As a precedent, however, the opinion of Magistrate Bridges should be no deterrent to the Attorney General in the further prosecution of his commendable compaign, the object of which is to put an end to the unlawful practice of medicine and to stop those who are thus engaged from the practice of their illegal calling.

Since 1907 our statutes have defined the practice of medicine and declared that:

> "A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition."

This definition was not changed by the enactment of the Webb-Loomis law. The statute further provides that:

> "Any person who not being then lawfully licensed or authorized to practice medicine within this state shall
>
> (a) Practice or advertise to practice medicine; or
>
> (b) Use in connection with his name any designation tending to imply or designate him as a practitioner of medicine; or
>
> (c) Use the title "doctor" or any abbreviation thereof in connection with his name or with any trade name in the conduct of any occupation or profession involving or pertaining to the public health or the diagnosis or treatment of any human disease, pain, injury, deformity, or physcial condition, unless duly authorized by law to use the same . . . shall be guilty of a misdemeanor."

Whether or not the defendant in this case used the title "Doctor" within the meaning of the statute is unimportant if he did any act constituting the practice of medicine; that is to say, if he in anywise held himself out "as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition" and if he either offered or undertook *"by any means or method"* to do the same. It is impossible, we believe, to read the record in this case without reaching the conclusion that the defendant, by his acts, did in fact practice medicine within the meaning of the definition. It was conceded at the trial that he was not a duly registered physician of the State of New York. When he pressed heavily at the base of the right ear of his patient he said: "There is nerve pressure there and that is the cause of your headaches in the fore part of your head," this unquestionably was the making of a diagnosis. By telling her what her trouble was and giving her the cause he thereby necessarily "diagnosed" her condition. When he was asked whether or not the pains would respond to chiropractic treatment and he replied: "Yes, and chiropractic treatment is just the thing you need to remove the cause of these pains," he thereby "prescribed" for them. When he manipulated his patient's vertebræ upon his table he thereby "treated" her condition. That he was holding himself out "as being able" to do these things was plain enough from the fact that the word "Chiropractor" was written on his door; that his assistant spoke of him as "Doctor"; that when personally addressed by the title "Doctor" he responded and that he accepted a fee for his work and arranged to have his patient return for further treatment. If he was not holding himself out "as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition," then what was he doing? For what purpose did he have an office? For what purpose did he have an assistant? For what purpose did he have the name "Chiropractor" on his door and for what purpose did he charge a fee? In the writer's judgment a clear case of a violation of the statute was established.

Our courts have repeatedly decided that one who practices chiropractic as ordinarily understood is in fact practicing medicine and that in so doing, if he is not licensed to practice medicine, he commits a crime. Among the cases which have so decided might be mentioned *People v. Allcutt,* 117 App. Div. 546; *People v. Somme,* 120 App. Div. 21; *People v. Mulford,* 140 App. Div. 716; *People v. Ellis,* 162 App. Div. 288; *People v. Shyne,* 242 N. Y. 176.

So clear is the law upon this subject that the general counsel of the New York State Chiropractic Association, in the writer's presence at one of the hearings upon the Webb-Loomis bill last year, admitted that all those who were practicing chiropractic were then violating the penal sections of the Public Health Law which makes the unlicensed practice of medicine a crime. The law as it stood at the time of that admission was not changed by the Webb-Loomis amendment.

"It is now the settled policy of the State" (declared Judge Clarke in the *Somme* case), "to hedge admission into the learned professions with strict requirements in order to secure, so far as possible, competent services to patients and clients from physicians and lawyers, and the statutes in regard to admission to the bar, as well as to the practice of medicine, have, to some extent, gone hand in hand."

In the *Ellis* case the defendant was a chiropractor. He was prosecuted for practicing medicine without a license. The prosecution established by a witness whom he had treated that he first "examined her ankle, pronounced the arch as having fallen, massaged the foot and advised a different shoe. On a further visit he manipulated the patient's spine, which, speaking as a spinologist, he pronounced out of alignment in several places. He said he could restore it, but it probably would not stay the first time. He further gave the opinion that the nerves leading to the ankle might be impinged so as to cut off the circulation." declaring that Ellis was guilty of the crime of practicing medicine without a license, the Court further said:

> "Rubbing and pressure on the human joints are old therapeutic agents. When accompanied by such attempts at diagnosis as the statement that a patient's pains in the ankle were from the spine having come out of alignment through displaced vertebræ, appellant's acts come within the statutory definition of the practice of medicine."

In the *Shyne* case a woman consulted the defendant "as a chiropractor and not as a regular physician." He claimed to possess the skill requisite for diganosis and treatment of disease . . ." As a result of Shyne's manipulation the plaintiff in that case became paralyzed. The treatment which was accorded was described by her as follows: "I lay down on the couch, face downward, and the support was removed from under my abdomen, and he began working on the spine, and from the neck, way down to the waist and back again. He pressed very hard, so that it made me flinch, especially up through the shoulders. One spot was hurt especially bad. It seemed as if it was his thumbs that he was pressing down hard, and that it hurt, and it made me flinch. And then he took a hold of my head, both sides of my head, and gave it a very violent turn. twist one way and then back, which gave a very bad snap, more noticeable than any of the other treatments. And it hurt." In the opinion of the Court Judge Lehman said:

> "The provisions of the Public Health Law prohibiting the prcatice of medicine without a license granted upon proof of preliminary training and after examination intended to show adequate knowledge, are of course intended for the protection of the general public against injury which unskilled and unlearned practitioners might cause. . . .
>
> "The defendant in offering to treat the plaintiff held himself out as qualified to give treatment. He must meet the professional standards of skill and care prevailing among those who offer treatment lawfully. If injury follows through failure to meet those standards, the plaintiff may recover. The provisions of the Public Health Law may result in the exclusion from practice of some who are unqualified. . . . The purpose of the statute is to protect the public against unfounded assumption of skill by one who undertakes to prescribe or treat for disease."

This was the law before the Webb-Loomis bill become a statute. The law as thus defined is still the law.

In his argument for the dismissal of the complaint in the Staten Island case which we are considering, the defendant's counsel quoted from the memorandum of Governor Smith, written at the time he put his signature to the Webb-Lomis bill, the following words:

> "This bill, if enacted into law, will not stop anyone from plying any occupation involving the public health who could *legally* do so before its re-enactment into law. That means that it does not restrict the *existing rights of any individual or any group*. Although no cult is licensed to practice in this State, it does not stop the practitioners of such cult from practicing the tenets of that cult by any manipulation, or other form of treatment, provided such practice does not involve a violation of the Medical Practice Act or any other section of the Public Health Law, as it existed before the enactment of this bill."

There was not and there should not have been any confusion occasioned by these words. From the foregoing cases we have pointed out that before the enactment of the Webb-Loomis bill no chiropractor unlicensed to practice medicine could "legally" carry on his practice provided any of his acts constituted the practice of medicine as defined by the statute. When Governor Smith declared that the Webb-Loomis bill "does not stop the practitioners" of any cult from practicing their tenets, he coupled this statement with the significant proviso: *"provided such practice does not involve a violation of the Medical Practice Act or any other section of the Public Health Law, as it existed before the enactment of this bill."* But *"before* the enactment of this bill," as we have seen, the practice of chiropractic repeatedly was held to constitute a violation of the Public Health Law.

Whether or not any particular chiropractor escapes the meshes of the law is a matter of public concern, but when a chiropractor escapes under a decision stating that: "Otherwise every . . . . chiropractor in the State would be put out of business," it is a matter of vital moment to all those who are interested in or charged with any responsibility for the safeguarding of the public health. It is precisely for the very purpose of putting "every chiropractor" . . . who in anywise or by any means "treats, operates or prescribes for any human condition" out of business that our public health laws were placed upon the statute books. "The provisions of the Public Health Law (said the Court of Appeals in the case previously cited) "prohibiting the practice of medicine without a license granted upon proof of preliminary training and after examination intended to show adequate knowledge, are of course intended for the protection of the general public against injury which unskilled and unlearned practitioners might cause." And in that case Judge Lehman further said:

> "The plaintiff employed the defendant to give chiropractic treatment to her for a disease or physical condition. The defendant had no license to practice medicine, yet he held himself out as being able to diagnose and treat disease, and under the provisions of the Public Health Law . . . he was guilty of a misdemeanor."

When, therefore, Magistrate Bridges wrote:

> "When a person claiming to be suffering pain, seeks out another and asks for treatment for that condition, well knowing that such person does not claim to be a regularly licensed physician, as in this case, and such person does treat said applicant by manipulating or rubbing, I can see no violation of the statute, nor do I believe the legislature intended it to be so regarded."

He enunciated a doctrine which has been repeatedly repudiated by the courts of this State. The fact that the policewoman did not suffer from the pains which she claimed to suffer and which Eiffertsen diagnosed and treated is of no importance. What the defendant did and said were the vital facts. If this were not so, then no evidence could be got against the unlawful practitioners of medicine.

The writer's attention was first called to this case by reading the accounts of it in the daily press. The accounts stressed that portion of the Magistrate's opinion following his conclusion that there was no violation of the statute, the words being: "Otherwise, every masseur and chiropractor (so called) in this State would be put out of business." A copy of the minutes of the trial was procured and the foregoing statements in regard to what there transpired have been based upon the stenographic minutes of the trial. There is nothing which can now be done about this case, as there is no appeal from a judgment of acquittal in a criminal prosecution. All that can be done is to point out the error of the decision and to urge that the Deputy Attorney General in future cases will continue to exert his fine efforts to combat the unlawful practitioners of medicine.

Especially unfortunate is it that this decision should have been made after the defendant's counsel had presented to the Court this argument:

> ". . . there is no harm in doing what you can to relieve a man from physical pain. That is not unlawful, even against this strange decision in the Health Law, which was, no doubt in my mind, designed by the medical profession to get rid of their competitors who they could get rid of and their influence as such, as I have observed it, and I know their influence is worked in matters of legislation."

That such an argument should be permitted to prevail in a court of justice is regrettable. It is not the doctors, but the Legislature of this State which has declared that only those who have shown the requisite knowledge and learning through proper examinations should be permitted to practice medicine. The public policy of this State was enacted into laws "intended for the protection of the general public against injury which unskilled and unlearned practitioners might cause." Counsel's argument that "there is no harm in doing what you can to relieve a man from physical pain" may be true as applied to mere assistance given by one individual to another; but where an unlicensed person is doing what he can "to relieve a man from physical pain" as a practice, as a calling, as a profession, maintains an office and exacts and receives fees for "treatments," the law condemns his acts and designates them as crimes. It is not the medical profession that desires "to get rid of their *competitors*" (if unlicensed practitioners of medicine may be so designated), but it is the people of the State of New York through their laws who have determined to put a stop to their unlawful work by making it a criminal offense to practice medicine without a license.

NEWS NOTES

THE ANNUAL MEETING

Arrangements are about completed for the Annual Meeting of the Medical Society of the State of New York on May 9-12, in Niagara Falls. The Falls are ready to welcome the doctors and their companions, and the various committees have perfected the plans for the assemblies and meetings. All that now remains to do is that the members and their wives shall take the train for the Falls and spend a pleasant four days at the meeting.

THE COMMERCIAL EXHIBITS

The physical equipment of a modern doctor's office must necessarily excel that required a generation ago to an extent that equals the progress made in the science and art of medical practice. A doctor must have tools with which to work; and these are supplied by commercial houses.

Manufacturers and distributors of medical supplies are the welcome friends and associates of physicians. They are always willing to assist the doctor in devising his instruments, publishing his books, preparing attractive medicines, and assisting him in satisfying his patients.

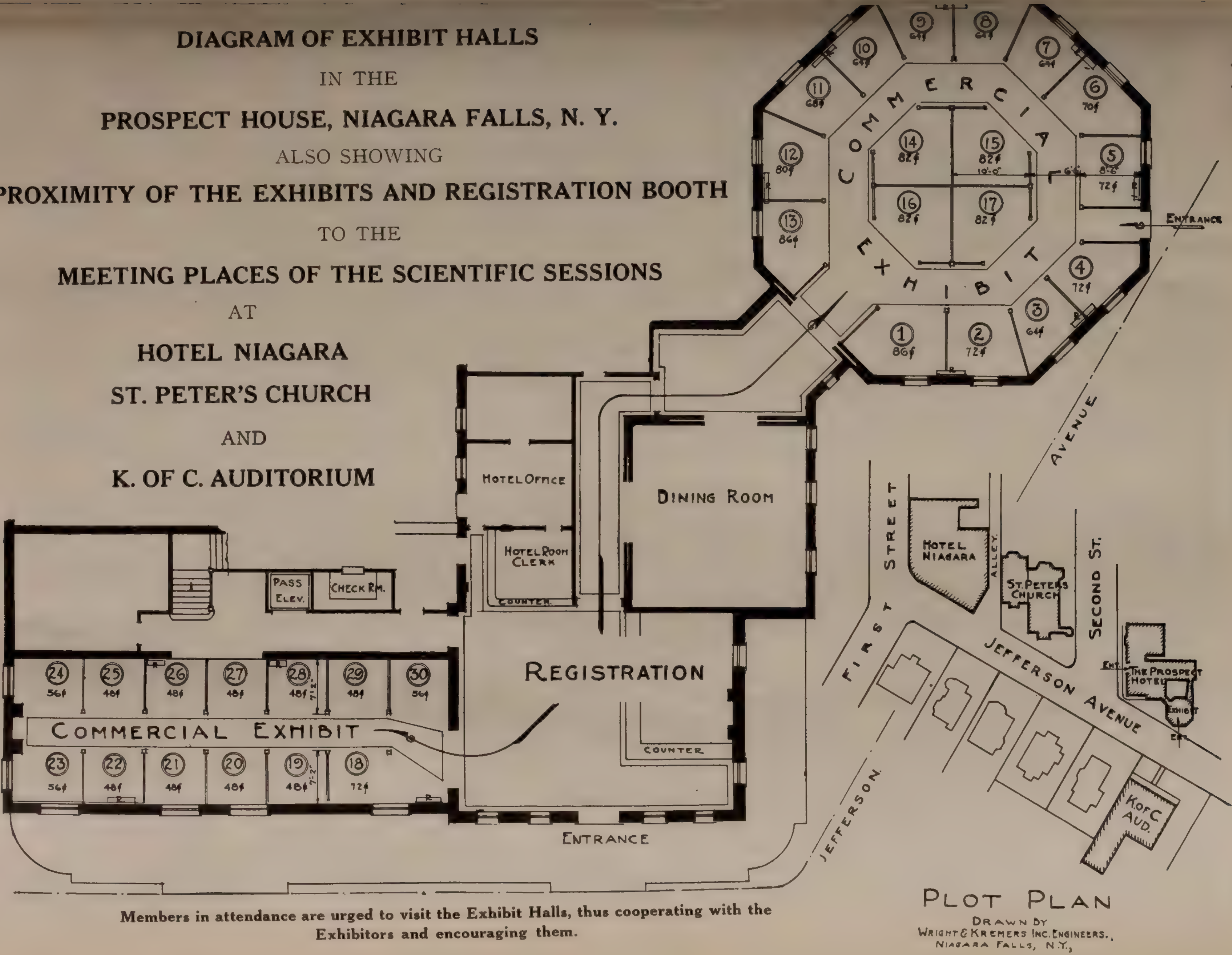
The Medical Society of the State of New York recognizes the debt of the profession to its business associates by arranging a commercial exhibit and giving it a prominent place in the program of the annual meeting.

It will be of mutual advantage to both the physicians and the exhibitors if the doctors will linger at the booths, consult the demonstrators, and show their friendliness to those on whom they depend for their physical equipment.

LIST OF EXHIBITORS

Abbott Laboratories, Chicago, Ill.	Drugs	21
Becton, Dickinson & Co., Rutherford, N. J.	Medical and Hospital Supplies	12
Frank S. Betz Company, Hammond, Ind.	Instruments	15
P. Blakiston's Son & Co., Philadelphia, Pa.	Medical Publications	10
Cameron Surgical Specialty Co., Chicago and New York	Diagnostic and Operating Equipment	24
R. B. Davis Company, Hoboken, N. J.	Health Food	20
Deshell Laboratories, Inc., Chicago, Ill.	Petrolagar	9
De Vilbiss Company, Toledo, Ohio.	Nebulizers	7
H. T. Dewey & Sons Company, New York	Grape Juice Products	4
Dry Milk Company, New York	Dry Milk Products	29
H. G. Fischer & Company, Inc., Chicago, Ill.	Electro-therapeutic Apparatus	8
Hanovia Chemical & Manufacturing Company, Newark, N. J.	Quartz Lamps	17
Harold Surgical Corporation, New York, N. Y.	Electro-therapeutic Apparatus	16
Horlick's Malted Milk Corporation, Racine, Wis.	Malted Milk Products	28
Kalak Water Company, New York	Therapeutic Water	30
K. & B. Electrical Equipment Company, New York	X-Ray and Electro-therapeutic Apparatus	5—6
Kimberly-Clark Co., Inc., Niagara Falls	Sanitary Specialties	25
Merrell-Soule Company, Syracuse, N. Y.	Dry Milk Products	26
Mutual Pharmacal Company, Syracuse, N. Y.	Drugs	3
Pfau's American Instrument Company, New York	Instruments and Teaching Materials	2
James Picker, Inc., New York	Electrical Apparatus	14
Sanborn Company, Cambridge, Mass.	Diagnostic Equipment	1
W. B. Saunders Company, Philadelphia, Pa.	Books	13
C. M. Sorensen Company, Inc., Long Island City, N. Y.	Operating Outfits	18
Spirella Company, Inc., Niagara Falls, N. Y.	Corsets	19
Tailby-Nason Company, Boston, Mass.	Cod Liver Oil	22
George Tiemann & Company, New York	Surgical Instruments	27
Victor X-ray Corporation, Chicago, Ill.	Electro-therapeutic Apparatus	11
Wappler Electric Company, Inc., Long Island City, N. Y.	Electro-therapeutic Apparatus	23

DIAGRAM OF EXHIBIT HALLS
IN THE
PROSPECT HOUSE, NIAGARA FALLS, N. Y.
ALSO SHOWING
PROXIMITY OF THE EXHIBITS AND REGISTRATION BOOTH
TO THE
MEETING PLACES OF THE SCIENTIFIC SESSIONS
AT
HOTEL NIAGARA
ST. PETER'S CHURCH
AND
K. OF C. AUDITORIUM



Drawn by
Wright & Kremers Inc. Engineers,
Niagara Falls, N.Y.

Members in attendance are urged to visit the Exhibit Halls, thus cooperating with the Exhibitors and encouraging them.

THE INDIVIDUAL EXHIBITORS

Booth 21—The Abbott Laboratories, Chicago, Illinois, will exhibit drugs and pharmaceuticals. Be sure to see the new Council-passed Abbott item—*Ephedrine Hydrochloride*—the alkaloid of the Chinese drug, Ma-Huang, used extensively in the treatment of asthma, etc. Also, have you any questions on products such as *Butesin Picrate Ointment, Neonal, Metaphen,* and other Abbott and Dermatological Research Laboratories' products of quality and dependability?

Booth 12—Becton, Dickinson & Company, Rutherford, N. J., expects to have a complete line on display and its representatives will be glad to show the profession the latest developments in syringes, needles, bandages, thermometers, etc.

Of particular interest will be the new *Armored B-D Manometer* which is practically unbreakable and which has a replacement feature of particular merit.

Booth 15—Frank S. Betz Company, Hammond, Indiana, will have on display a new improved *Murphy Hydraulic Operating Table* and a complete line of the *Krome Plate Rust-Resisting Instruments.* Our Exhibit will be given over entirely to the demonstration of new instruments and equipment that have been developed since the last convention, and will be in charge of Mr. Theodore Bailin and Mr. Paul Ross.

Booth 10—P. Blakiston's Son & Company, Philadelphia, will show publications. Among the many new books of the company, the new Deaver,—The Surgical Anatomy of the Human Body,—stands out as one of the leading contributions that have been made to medical literature in recent years. Other important new books are Edgar's "Obstetrics," Strecker & Meyers "Clinical Neurology," four new volumes in the "Recent Advance" Series, Stoddard's "Mind and its Disorders," etc.

Booth 24—Cameron's Surgical Specialty Company of Chicago and New York City has a trained representative at Booth 24 where will be found the most modern electric-lighted *Diagnostic and Operating Equipment* in the world. There will also be exhibited the now famous 2-lb. *Cautery Outfit* using solid platinum tips. Many new instruments will be shown, including the new *Otoscope, Nasoscope, Procto-sigmoidoscope, Urethroscope, Anoscope, Skenescope, Mouth-gag,* and *Retino-ophthalmoscope.*

Booth 20—R. B. Davis Company, Hoboken, N. J., say that "The Fountain of Youth" has been found at last, in fact it is at your very door. One of the newest and best of all health aids—*Cocomalt*—will be featured at the meeting of the Medical Society of the State of New York, Niagara Falls, New York. When you visit the *Cocomalt* booth, look into the mirror and you will see the health aids translated in terms of foods, rest and cleanliness. Carrots will give color to your cheek, whole grain cereals a finish to your skin, beets will add color to your lips, etc., while one of the best and newest of all—*Cocomalt*—will put youth into your being and add years to your life.

Cocomalt has gone to nature, not the chemist for its nutritive value as well as its delicious flavor.

Booth 9—Deshell Laboratories, Inc., Chicaco, Illinois, expect that the preference for an emulsion of mineral oil for intestinal lubrication will undoubtedly create much interest in its *Petrolagar* Exhibit.

At this exhibit, the Deshell Laboratories, Inc., will have some interesting material to demonstrate, in a graphic manner, why the emulsion of mineral oil and agar is superior as an intestinal lubricant to the plain oil.

The representatives in charge of the *Petrolagar* exhibit will have important data on the clinical application of the various types of *Petrolagar,* their use in spastic and atonic constipation, and in the modification of the Sippy method of treating gastric ulcer.

Booth 4—H. T. Dewey & Sons Company, New York, will exhibit grape juice products and compounds. For seventy years this house has been noted for the excellence of its products. Founded in 1857 by Hyram T. Dewey, who was a pioneer in wine making in America, the firm has developed medicinal products of which grape juice is a constituent. It will exhibit *Dewey's Emulsion of Cod liver oil, port wine and Irish moss*—a tonic easy to take and digest.

Dew-tone and port will also be shown. This product is sold directly to the consumer.

Dewey's wine-grape juice will also be shown. This is the pure juice of the white or red wine grape cold pressed. No preservatives or coloring matter is used.

Booth 7—The De Vilbiss Company, Toledo, Ohio, will display its well-known line of *nose and throat sprays, nebulizers, steam vaporizers, etc.,* for office and prescription purposes.

Booth 29—Dry Milk Company, New York, pioneers in the manufacture of a special quality of dry milk for infants and invalids, will exhibit *Dryco,* also *Protolac,* a calcium caseinate. As usual, it will distribute useful souvenirs and, more important, will show a new product, a very marked development in the increase of the nutritional properties of milk.

Booth 8—H. G. Fischer & Company, Inc., Chicago, will exhibit a most complete line of *physical therapy apparatus and electrodes,* a distinctly new and extremely powerful *diathermy cabinet, a tissue cutting apparatus,* a low voltage and wave current generator which is remarkably smooth in action, and its latest *radiant therapy lamp,* as well as quartz *ultraviolet* apparatus.

Visitors will find the Fischer line of supplies and accessories unexcelled anywhere. Some new electrodes will be shown for the first time at this meeting.

Booth 17—The Hanovia Chemical & Mfg. Company of Newark, New Jersey, will exhibit, as usual, its entire quartz mercury anode type quartz lamps, the *Alpine Sun Lamp,* the *Kromayer Lamp* and the Luxor model of the *Alpine Sun Lamp.* Together with these, they will have on display two different models of lamps, especially designed for particular needs, embodying certain refinements.

Competent members of the Hanovia Staff will be on hand to demonstrate and explain in detail any of the lamp's workings. A cordial welcome is extended to all physicians attending the meeting.

Booth 16—The Harold Surgical Corporation, New York, will exhibit some recent developments in electro-therapeutics including: *Tropico Sun Twin Arc Violet Lamp,* which sells for only $200.00; *Multotherm,* a heavy duty diathermy apparatus with the high frequency cutting current (radio knife); *Portatherm,* a startling value in portable diathermy apparatus; *Bierman High Frequency Electro Surgical Hemorrhoid Clamp* which makes hemorrhoidectomy a bloodless office procedure.

Booth 28—Horlick's Malted Milk Corporation of Racine, Wisconsin, invites the attention of all present at the annual meeting of the Medical Society of the State of New York to its Booth No. 28, where there will be on display the universally known *Horlick's,* the original *Malted Milk,* in powder and tablet form, and also *Horlick's Chocolate Flavored Malted Milk.*

The representatives in attendance will be pleased to explain the advantages of these various products to the medical profession, and will welcome their inquiries and discussions. The *Dumore Electric Mixer* will be demonstrated, and samples and literature will be supplied.

Booth 30—The Kalak Water Company of New York will again be present with an exhibit, and physicians who desire a delightful and refreshing drink during the meeting are invited to call at the exhibit. A representative will be present and will be glad to serve you.

Booths 5 and 6—The K. & B. Electrical Equipment Company, Inc., of New York, Rochester, and Buffalo, distributors of the *Kelley-Koett Electrical apparatus* for over ten years, will exhibit that firm's latest productions in *X-ray equipment.* It will also show the firm's *diathermia machines,* and *heat* or *infra red lamps, Hanovia Quartz Lamps,* and other physical therapy equipment.

Booth 25—The Kimberly-Clark Company, Inc., Niagara Falls, will exhibit *sanitary specialties,* and particularly *Kotex.*

Booth 26—Merrell-Soule Company, Syracuse, N. Y., will exhibit *Klim,* Merrell-Soule *Powdered Protein Milk,* Merrell-Soule *Powdered Whole Lactic Acid Milk* and allied products which constitute its group of infant breeding products.

Klim will be served to visiting physicians so that they may judge as to its flavor, and the attendants will be glad to answer any questions regarding the scientific background and clinical success of each product.

Booth 3—The Mutual Pharmacal Company, Syracuse, N. Y., will display products of its laboratory. These products represent the highest achievement in pharmaceutical practice and are carefully tested and assayed to meet the requirements of discriminating physicians. A cordial invitation is extended to physicians to visit the booth.

Booth 2—Pfau's American Instrument Company, New York, will exhibit a full line of: *New anatomic specimens and teaching material;* the latest *ear, nose and throat instruments; specialties for plastic surgery and nasal correction.*

Special features are: Set of specimens showing Dr. Halle's various sinus operations and different kinds of mastoid operations.

Tanned nose specimen with movable septum and with new arangement of the sections; Atkinson's latest directoscope: The latest patterns of Pfau's well-known cutting and punching instruments

Booth 14—James Picker, Inc., of New York City will be represented at the forthcoming meeting in Niagara Falls by an exhibit of precision *X-ray and Physical Therapy Equipment* which will introduce a number of the latest developments in the field.

The X-ray exhibit will include equipment of special interest to the general practitioner. Mr. Walter Steinkamp of the Rochester office of this firm will be in charge of the demonstration.

Booth 1—Sanborn Company, Cambridge, Mass., will exhibit their standard metabolism apparatus and the portable Sanborn Electrocardiograf. New features for Metabolism Testing include the White Grafic and our special white enamel, transportable table. Doctors and technicians are cordially invited to see demonstrations of apparatus and testing methods.

Booth 13—W. B. Saunders Company, Medical Publishers, Philadelphia and London, will exhibit their entire line of some 250 titles. Of particular importance are a great number of new books and new editions including Cecil's *Textbook of Medicine,* Ford's *Bacteriology,* Wechsler's *Clinical Neurology,* Young's *Practice of Urology,* Rehfuss' *Diagnosis and Treatment of Diseases of* *the Stomach,* Crohn's *Diseases of the Stomach,* Wood and Rowell's *Health Supervision and Medical Inspection of Schools,* the new *Mayo Clinic* Volume, Kolmer's *Chemotherapy,* Stokes' *Clinical Syphilology,* an entirely rewritten edition of Griffith and Mitchell's *Pediatrics,* Morse's *Pediatrics,* Arny's *Pharmacy* and Sollmann's *Pharmacology,* both revised in accordance with the new Pharmacopeia, 10th edition of Scudder's *Fractures,* 2nd edition of Stevens' *Practice of Medicine.* As this list of new books and new editions indicates those attending the convention will find among the Saunders titles a number of books of practical value whether they be general practitioners, surgeons or specialists.

Booth 18—C. M. Sorensen Company, Long Island City, N. Y., will exhibit and demonstrate the much talked about DeLuxe Equipment, the popular hospital *anaesthesia and operating outfit No.* 425, and the *adjusto combination No.* 454, the favorite of all adjusto outfits. The balance of the exhibit will be made up of specialists' chairs and stools.

Booth 19—The Spirella Company, Niagara Falls, N. Y., will show its corsets and supporting apparatus. Physicians and Surgeons who are interested in obstetrics, pre-natal and post-natal support, ptosis and post-operative garments, spinal support and poise correction should visit the Spirella booth where Spirella garments will be exhibited, and Spirella literature may be obtained. Group or individual demonstrations will be given on living models. Private demonstration room.

Booth 22—The Tailby-Nason Company of Boston, producers of Nason's Palatable Cod Liver Oil, will have a display of their "good tasting" medicinal cod liver oil with pictures showing the conditions under which it is produced. An important part of the demonstration will be white rats used in testing for vitamin activity.

Booth 27—The George Tiemann Company, New York, calls attention to its surgical instruments and appliances, among which will be many new items. Lamps of various kinds, both lighting and therapeutic, will also be displayed at its booth. It will also be glad to have doctors and hospitals register for its Centennial Catalogue which will be sent prepaid on receipt of request.

Booth 11—The Victor X-ray Corporation, Chicago, will feature its line of *Physical Therapy apparatus, including* the new portable *Vario-Frequency Diathermy apparatus,* with a capacity of 4,000 ma. over a selective frequency range of from 500 to 2,000 kilocycles; the *Wantz Multiple Wave Generator,* for the production of Galvanic, surging galvanic and sinusoidal currents; air and water-cooled *Ultraviolet Quartz Lamps,* and *Phototherapy Lamps.*

Prospect House in which the exhibits are held.

The trained representatives in charge of the Victor booths will cheerfully assist you in solving your technical problems involving either physical therapy or X-ray apparatus.

Booth 23—The Wappler Electric Company, Long Island City, N. Y., will exhibit its line of electro-therapeutic apparatus, among which will be the *Monex*—the small, silent, powerful apparatus, the New Model B. *Electrotherm,* and the Wappler *Sine Wave Generator.* A selection of *Cystoscopes* will also be shown in the Wappler booth.

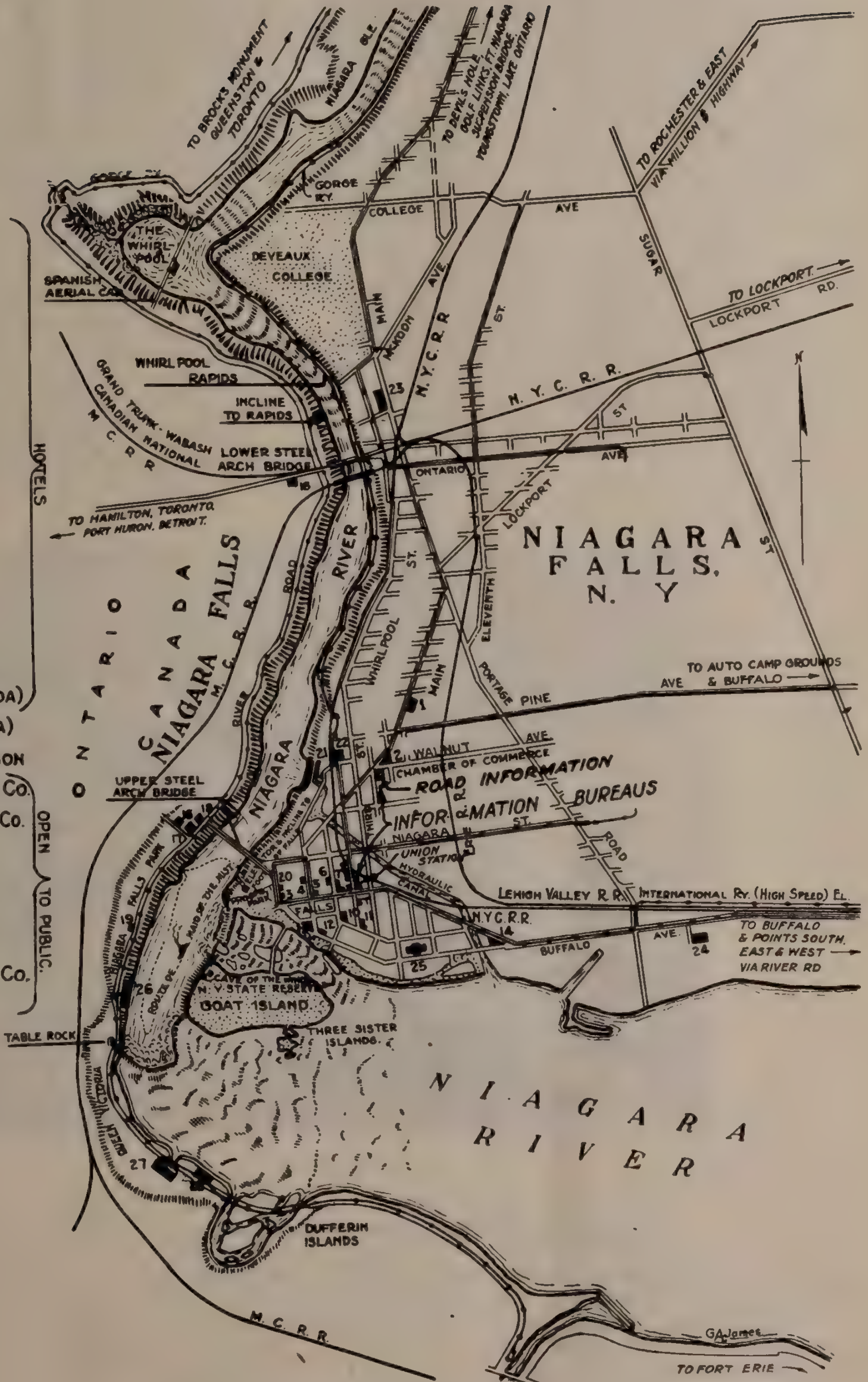
A CORRECTION

The article entitled "The Annual Meeting" on page 372 of the April first issue of this Journal, was in reality two articles, one sponsored by Dr. Frederick J. Schnell, Chairman of the Committee on Arrangements, and the other by Mr. G. L. Bowe, Manager of the Convention and Publicity Department of the Chamber of Commerce of Niagara Falls. The two articles were printed as one and so Mr. Bowe's name appears as if he were responsible for the official meetings of the Society.

Why did the editor fall into this sin of omission? He has no excuse to offer. He trusts that the readers will assume the attitude of President Roosevelt when he said that he would excuse a man for making a mistake, but he would not excuse him for making the same mistake twice.

-KEY-

1	City Hall.	
2	Post Office.	
3	Moose-Tower Hotel	Hotels
4	The Edwards Hotel	
5	The Clifton Hotel	
6	The Watson House	
7	The Converse House	
8	The Temperance House	
9	The Imperial Hotel	
10	The Niagara	
11	The Prospect House	
12	Red Coach Inn	
13	The Cataract House	
14	Niagara Inn	
15	The Inn (Canada)	
16	Savoy Hotel (Canada)	
17	The Clifton (Canada)	
18	Lafayette Hotel (Canada)	
19	The Refrectory (Canada)	
20	High Speed Terminal Station	
21	The Niagara Falls Power Co.	Open to Public.
22	The Niagara Wall Paper Co.	
23	The Spirella Co.	
24		
25	The Shredded Wheat Co.	
26	Ontario Power Co.	
27	Canadian Niagara Power Co.	
28	Toronto Power Co.	



MAP OF NIAGARA FALLS

HOW TO SEE NIAGARA FALLS

The Falls of Niagara are peculiarly well situated for being seen from many points of view. A visitor having only a few hours is tempted to linger at a single place and there study the details, but in doing so he is likely to miss the grandeur of the Falls, the Rapids and the Gorge, all of which should be seen in order to know Niagara. The course usually followed by the sightseer is to go first to Goat Island and spend so much time there—profitably to be sure—that he misses some of the most important other aspects of the views. In order to get the maximum impressions in the briefest time, the following course is advised:

Go first to the Maid-of-the-Mist landing and sail up to the Falls. This will give one an impression of the stupendous height and volume of the Falls—something that one misses almost entirely when he views them from a distance.

Second, land on the Canadian side and walk up to the Horseshoe Falls. The distance is about half a mile and all the while one is facing the Falls.

Third, take the trolley at the Horseshoe Falls and ride down along the upper rim of the Gorge. This gives one an idea of the depth and enormous size of the chasm that has been carved in the rock by the river.

Fourth, cross the river at Lewiston and ride back along the water's edge, at the bottom of the Gorge. This will afford a near view of the rapids.

Lastly, go to Goat Island, and enjoy the details of the exquisite view of its rocks and rapids.

This order of view starts at the very outset to impress one with a sense of the overwhelming grandeur of the Falls and Gorge—something which visitors miss almost entirely when they fail to take the Maid-of-the-Mist trip, or ride along the rim of the Gorge.

HORSESHOE FALLS

WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE

The annual meeting of the Women's Medical Society of New York State will be held at the Hotel Niagara, Niagara Falls, N. Y., Tuesday morning, May 10, 1927. The general topic will be "Preventive Medicine."

In place of the usual formal banquet on the night of the meeting, there will be a luncheon Tuesday noon that will partake of the nature of a Round Table, with three minute responses to Roll Call.

Dr. Zella White Stewart, a prominent allergist from Iowa, will speak on "Asthma and Hay Fever"; Dr. Schroder on "Immunity in Scarlet Fever"; Dr. Rosalie S. Morton, who has just returned from South Africa, will speak on "Exotic Medicine"; Dr. Van Alstyne on

"The Use of the Alpine Sun Lamp in Diseases of the Skin," and Dr. Buck on "X-Ray Treatment of Fibroids."

We desire reports from Councillors of the District Branches, and recommendations in regard to greater activity of our members at the District Meetings. There will be a report on Gotham Hospital and other reports interesting to women physicians.

A Council Meeting will be held from five to six o'clock, Monday, May 9th, at the same place. We hope that the women physicians throughout the State will take a holiday at the Falls and join the Council at an informal dinner, at six o'clock, on Monday evening.

Make your reservations early, and plan to remain for the meetings of the New York State Medical Society.

COURT HEARINGS IN THE COMMITMENT OF THE INSANE

The following letter will be of interest to all physicians who deal with commitments of the insane.

STATE OF NEW YORK
Department of Mental Hygiene
Albany, N. Y.

April 7, 1927.

Dear Mr. Editor:

I am very glad to have your letter of April 6th, referring to an article in the *New York Sun* of April 4th, which described a scene in a Brooklyn court where twenty insane patients were present awaiting commitment. Your letter gives me an opportunity to comment on the practices of Brooklyn judges.

The commitment of a mentally sick person is descretionary with the court. It can accept the affidavits presented or can require further proof. For several months Brooklyn judges have insisted on the actual presence of the patients. Nowhere else is this thought necessary, but they have required it and the courts' directions had to be obeyed. The rule is open to many objections. It is unnecessary, humiliating to patients, and the effect of bringing sick persons to court before they can have the relief which the State affords is detrimental to the well being of those so produced. I assume the reason behind the rule is the thought that sane people are being sent to State hospitals. That topic furnished many a plot for the mid-Victorian novels, but it does not exist in New York State today, for with the great overcrowding of its hospitals, every effort is being made to prevent the admission and to release promptly every person capable of care in the community.

There has been no change in the mental hygiene law, although each year a jury trial bill is introduced and the Department actively opposes the enactment into law of any measure which will make appearance in court a necessary preliminary to admission to a hospital. It cannot be too strongly urged that mental illness is not a crime, that presence in court should not be required. It is barbarous, inhuman, and cruel, and your assistance in combating the practice will be greatly appreciated.

Sincerely yours,

FREDERICK W. PARSONS, M.D.
Commissioner.

THE INTERNATIONAL MEDICAL CLUB OF NEW YORK

An organization called the International Medical Club of New York, which has recently been formed, gave its inaugural dinner on April 12, in the New York Academy of Medicine. Its president, Dr. Samuel J. Kopetzky in stating the objects of the Society, said:

"Theoretically science has always been international, but differences of race and language have set up barriers and limited the diffusion of knowledge and discovery to class rooms and the pages of medical journals. The objects of the International Medical Club are to wipe out some of these barriers, through establishing contact with similar clubs in foreign countries; through the promotion of social and medical contacts between the foreign language and medical societies in the United States and the American medical profession; through organizing receptions for visting physicians and providing a forum for lectures on international medical subjects, and through facilitating the interchange of courtesies in clinics and institutions.

"The International Medical Club is the first of a string to be established in America and abroad. Several are already being organized throughout this country. Virtually every nationality is represented in the parent body."

The speakers at the dinner included Baron de Cartier de Marchienne, the Belgian Ambassador; M. Gaston Liebert, the French Minister to Cuba; Dr. Antonio Stella, representing the Italian Consul General; and Senor Rafael de Casares, the Spanish Consul General.

The officers of the Club are:

Dr. Samuel J. Kopetzky, President; Dr. Pol. Coryllos, 1st Vice-President; Dr. Jacques Maliniak, 2nd Vice-President; Dr. William S. Bainbridge, 3rd Vice-President; Dr. Frank R. Herriman, Secretary; Dr. Jose A. Lopez, Treasurer; Dr. Wolff Freudenthal, Historian.

The directors are:

Dr. Henry H. Forbes, Dr. Max A. Goldzieher, Dr. Thomas J. Harris, Dr. I. Seth Hirsch, Dr. Sergius M. Ingerman, Dr. Gaston Labat, Dr. Leon T. LeWald, Dr. Emanuel Libman, Dr. P. M. Marafioti, Dr. Michael Osnato, Dr. Wendell C. Phillips, Dr. Frederick P. Reynolds, Dr. William Sharpe, Dr. Ervin Torok, Dr. Manuel U. Troncoso, Dr. George Gray Ward, Dr. Linsly R. Williams.

ERIE COUNTY MEDICAL SOCIETY

Plans for the promotion of post-graduate medical instruction in Erie County were immeasurably advanced at the regular meeting of the Medical Society of the County of Erie, held March 21, 1927, in Alumni Hall, University of Buffalo, when the Society voted to accept an offer made by the Board of Managers of the Buffalo City Hospital to place at the disposal of the Society for graduate teaching purposes the clinical facilities of the outpatient department of the Buffalo City Hospital.

The offer was accepted with the proviso that the clinics be conducted under the direction of a staff chosen by a committee appointed by the President, and that committee be authorized to solicit information of what branch of medicine the members wish to engage in, and be authorized to carry into effect the teaching facilities. This means that the scientific resources of this great institution will be available to members of the Society as continuation students and the courses of instruction will be in charge of capable teachers.

For the March meeting President W. Warren Britt had invited the superintendents of all hospitals to present to the Society the advantages they have to offer for clinical instruction, in order that the members might have an opportunity to entertain and discuss the invitations and adopt definite plans agreeable to the management and staffs of these institutions. Representatives from the various general hospitals expressed a hearty willingness to co-operate in the development of the movement to increase the diffusion of medical knowledge and enable the general practitioner to do better work by attending clinics, staff meetings and pathological conferences. The superintendents of State Hospitals in Buffalo and Gowanda extended liberal invitations to the members of the Society who are interested in the study of mental diseases to make use of the facilities of these institutions.

The growing interest in continuation medical study manifested by physicians in Erie County is evidenced by increased attendance at meetings of the Society devoted to that subject. The members present at the March meeting exceeded the combined attendance of the January and February meetings.

Courses in post-graduate instruction were adopted by this Society in 1926, under the presidency of Dr. Robert E. DeCeu. A course of six lectures in Pediatrics was given at the Children's Hospital. A committee was appointed to make a survey of local hospital facilities for clinical instruction. The report of the committee set forth detailed information relating to the resources of this great medical center in Western New York. The report was published in pamphlet form by the Society last January, and a copy mailed to every physician in the Eighth District Branch.

E. P. Orvis, M.D., *Secretary*,
Medical Society, County of Erie.

THE DAILY PRESS

SPONTANEOUS GENERATION

The modern science of medicine and surgery is founded on the law of "all life from life." Physicians of the present day have difficulty in comprehending the state of mind when the learned, both scientists and theologians, believed in the spontaneous generation of living things from dead matter,—abiogenesis, as was called. The *New York Herald-Tribune* of April 11 comments on the work of the observer to whom is ascribed the honor of being the first to demonstrate the parentage of these living things whose origin had hitherto been ascribed to putrifying matter. An editorial entitled "Epoch-Making Worms," reads:

"The first man who wrote the birth certificate of a worm, thereby to win undying fame, has been honored this year in Italy by the celebration of the 300th anniversary of his birth. His name was Francesco Redi. He it was who proved that worms had ancestries, respectable or otherwise, and were not merely created out of nothing at all by some mysterious power of the forces of life.

"Redi's was perhaps the most important of all discoveries in the sciences of life, for it opened the way to everything that has followed, even to the revolutionary discoveries of Pasteur concerning the germ theory of disease. Lacking microscopes which could trace every stage in the lives of the small meat worms, as we can do today, Redi made experiments with what he had. He placed portions of meat in screened jars, so that air could enter but flies could not. In this protected meat no worms appeared. But persuading the flies to lay their eggs on the screens themselves, above the attractive bits of meat, he proved that it was from these eggs that the worms came, worms which we now know to be the larval stage in the life history of the flies. Among the great landmarks of science these discoveries of Redi constitute one of which his countrymen in Italy have every right to be proud."

Redi was a famous poet who also made many exact observations in biology. He observed, for example, minute parasites in the intestines of crabs. Yet it is strange that the encyclopedia Britannica does not devote an article to him, although a few references to his work may be found in the index.

THE SLAYER OF DR. PENDOLA

A verdict of guilty of first degree murder has been rendered against Frank Caruso of Brooklyn, who killed Dr. Casper Pendola on February 12. The doctor had injected antitoxin into Caruso's child who was dying with diphtheria. Death soon followed, and for it Caruso took the doctor's life.

The *New York Herald-Tribune* of April 12 prints a half column of letters protesting against the infliction of the death penalty on the ground that the murder was not premeditated, but was the result of temporary insanity. The letters reveal an attitude of sentimentalism on which the criminal relies to escape the full legal punishment for his crime. The writers of the letters seem to think they have made a new discovery in psychology, and that "Temporary insanity" is a mental disease for which the patient is not responsible any more than he is responsible for mania during an attack of cerebro-spinal meningitis.

It is commonplace to say that anger, or other sudden violent emotion is temporary insanity. Granting that a person's judgment fails him at a critical time, and that while in that state he commits a heinous crime, what should society do to protect itself from other outbreaks? If a man who can meet ordinary situations with calmness and judgment, cannot meet extraordinary situations, that man may be a serious menace to society. It is of course a grave question whether or not a criminal in that state should be put to death,—if indeed any person should,—but there can be no doubt regarding the duty of society to place that man under such restraint that never again could he have the occasion or the opportunity to repeat his crime.

One letter says: "The acquittal or pardon of Caruso on the ground of temporary insanity would be no reflection upon the medical profession." This is where the writer is entirely wrong, for he advocates that the criminal be set entirely free and completely absolved from his crime. Physicians do not believe Caruso should be set free. They believe that he should be put under restraint for life, and that temporary insanity has no place in diagnosis.

OUR NEIGHBORS

MEDICAL PRACTICE ONE HUNDRED YEARS AGO

The Practice of Medicine a century ago had its unpleasant side, especially for the younger doctors. The older practitioners were intensely jealous of the new-comers, and often refused to have anything to do with them, and frequently even slandered them. There was something of justification in this attitude, for in the absence of clinics and medical journals, almost the only available method by which a doctor could make progress in his art was by means of his own experience, and that of course he was unwilling to share with anyone else. He might publish it in a medical journal for the benefit of his medical brethren, who lived a hundred miles away, but he was not willing to share it with his brother doctor in the same town.

The Journal of the Michigan State Medical Society for April contains letters written by Dr. D. L. Porter, in 1828, while he was trying to establish a practice in Pontiac, Michigan. On December 29, 1828, he wrote:—

"I really wish that you could have seen our Christmas celebration in this town. Of all motly assembly! You never saw the like. It is general holiday. The first thing was to call out the sharp shooters to wreak their vengeance on the turkeys. They were set up at 25 rods, sixpence a shot at arms and there were some of the greatest marksmen I ever saw. One man bought twelve shots and the contract was that if he did not strike the head or neck, even though he killed the turkey, it was to be considered as lost to him. He struck the neck nine times, the head once and the body twice. Many of the marksmen killed at every shot. After shooting they went to gambling and drinking, singing and dancing. You can form no conception of the scrape they had. It is utterly out of my power to give even a faint outline of the proceedings. The scrape was kept up until Sunday night. I thought that many must have killed themselves but to my amazement there was not an accident, nor a single dead set battle, nor any violence though I think that many will feel the effects of it for months if not for life. Many lost a great deal of money. One young man set up his farm at rush for 500 dollars and took a share in. He won it back and set it up again for one-half and lost that and before night every cent he had in the world. Such are the people who are pioneers in a new country. Slaves alike to the soil and to their passions. They are, however, a transient class. They soon fall a sacrifice to their excesses or when broke down retreat to the western wilderness again to gain and again to lose; there being no such thing as reformation.

"I have had but little business since I wrote last. One call which ought to have stood me twenty dollars cost me four or five besides my time and labor. I was called in council to Hoxies Settlement 35 miles northeast of here in Macomb County with Doctor Janning, a graduate of Burlington in the days of Smith and Porter. It was a case of typhus and the man died 12 hours after I got there. I was detained one day by my horse being sick; the man who died did not leave enough to bury him and I had the pleasure of being gone three days, paying one dollar a day for a horse and keeping him during that time.

"Doctor Thompson has been very particular in warning everybody against me as a quack and swindler. The first I have disproved by my papers and practice, the second I must leave to time to develop. I am determined to stick to Pontiac through evil and through good reports. I know I can give the Doctor a pull as he is most heartily hated. One man, an enemy to Thompson and in my esteem no friend to me, offers to let me have one hundred and fifty dollars if I will give him my judgment bond for one hundred and fifty with interest and an execution on my horse and books and medicine. I have thanked him for his kindness as I ought but have concluded to wait patiently until spring. My stock of medicine will last me several months and LeRoy will accommodate me with board at his own risk but is so far prejudiced by Thompson that he will go no farther. I have paid the $20 rent on an office for six months in advance and what money I have will pay my horse hire until I shall be able to get a horse. Twelve families have given me their public pledge that they will give their business for one year at least, but I have to take my pay in grain or dicker as it is called, a year from this time. Which is the only season for paying debts in this country.

"Thompson having quarreled with all the neighboring physicians, they have one and all pledged themselves not to call on him in council and have proposed to me to act as consulting physician, which I have engaged to do."

On January 1, 1830, he wrote:

"A Happy New Year to all of you. I was

(*Continued on page* 514—*adv. xxii*)

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(*Continued from page* 512)

woke about an hour since by the yell at my door of some ragged, wild looking urchins, of 'A Happy New Year, Doctor.' I got to the door and thanked them, they were not satisfied with that, however, and one of them said 'that dad had told him that I was a Dutchman and had oceans of hot punch and cake and his object in calling was to partake of the good things and he would be damned if he did not have some and Dick wanted some, too.' I found that I could not be rid of them by fair means so I resorted to the earnest and gave them a chance either to clear out, take some yalop or a cowhiding. To my utter amazement one chose the yalop (not knowing what it was). I mixed it with some water, he ate some but concluded he had no 'further occasion,' decamped with a yell and followed by his companions who promised not to trouble me for devil's milk again in a hurry.

"Do you recollect my expressing a wish to have the ague for the sake of experiment? I'm satisfied for I have it with a vengeance every other day, at precisely twelve o'clock. It is not like our ague. It makes me shake like vengeance, but does not last over two or three hours when I am able to resume my books or ride or whatever else I feel disposed for the moment to do. The chill is very severe, but the other stages amount to nothing and when over I feel no bad effects except a general soreness for a few hours. It is probably occasioned by the very warm weather and the draining the mill pond to repair the dam. Almost every person in the village has it, but they never do anything for it as cold weather will stop it. I have had four fits and expect one today. I shall leave it to take its course for a few days longer when I shall have to try calomel for a few days. The ague is looked for regularly and receives little attention from the inhabitants.

"Thompson and me closed accounts yesterday, he said that it was always good policy to work off the bile at the end of the year. He raved like a mad man and I laughed at him. I found afterwards that it was his determination to quarrel with me and then make peace and form a partnership. I will see him, as he wished me, d'n'd first. A partnership on no terms shall be formed now, as he has acted like a scoundrel. By his violent and unmanly conduct he has long ago excited the contempt and hatred of many, and his present course is far from a soothing one. I shall eventually root him out, root and branch, if he does not go to his majesty on a whiskey barrel first. The greatest misfortune I have to contend against is the coming in here after two real scoundrels had to decamp. They both

(*Continued on page* 515—*Adv. xxiii*)

(*Continued from page* 514)

did well for a year or two but became dissipated and shaved all their creditors and friends out of their demands. The people still feel sore and are very much on their guard and their fears are kept alive by the bold assertions of Thompson. The course he pursues is the very one which I could have wished, as I might not have been known for a good while, but now I am known personally, or by report by every person within ten miles of this"

On March 1, 1830, he paid his respects to the women of Michigan in the following terms:

"I have not yet seen the young lady in the territory whom I would take for better or worse for her weight in gold. The majority are lamentably deficient in either natural or acquired graces. In the rich and harmonious vocabulary of the Kentuckian, they are half horses, half alligator and the rest made up of the well known properties of the wild cat and snapping turtle. There are many who would be ornaments to any society if they had the advantages common in our own section of the country. You must therefore select one for me in old Saratoga against the time that you think it would be best for me to play the fool."

Dr. Porter seemed to prosper in his practice for on March 1, 1830, he wrote:

"Business is improving. In the last month I have charged $45.00. Ten of which is good for nothing. I have entered into a partnership with Mr. Beach in the druggist business."

Two months later he wrote:

"Since my last letter there has been but little sickness until within a few days. My charges since the 23rd of April have been $31.54 and I have two patients to visit out of town, besides three that come to the office. Great fears are entertained throughout the territory (this of course must not be hinted out of our own family as it might deter emigrants), that it will be the most sickly season that we have had for some years. I must confess that from present appearances it will be the case; if my suspicion should prove correct I have no apprehensions for myself on the score of business."

On August 10 of the same year he wrote:

"'Black Bill,' as he is called, alias Doctor T., continues savage because I would not be salivated or die; nor salivate or kill any of my patients, which, thank God, we have not found necessary in a single case, as yet, whereas he has salivated all of his and out of seven cases of fever he has lost three. In his wrath he has opened an opposition druggist shop. He damned Judge LeRoy the other day for introducing me here, as since the sickly season

(*Continued on page* 516—*adv. xxiv*)

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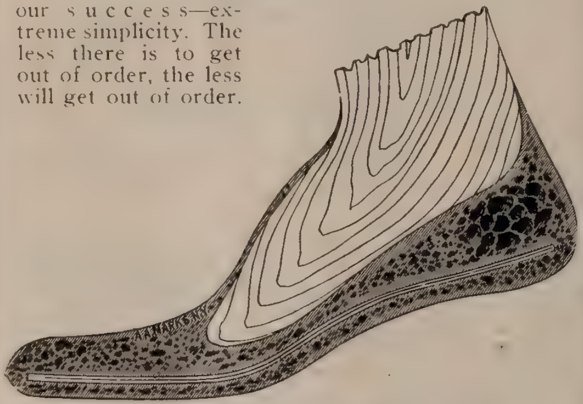

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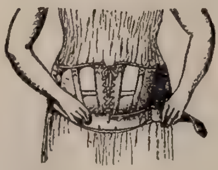

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(*Continued from page* 515)

commenced he had not charged $300, whereas ours since the second of June amounts to about $500. Business in consequence of the rains has not been as good for the last week or ten days; our daily charges average from 8 to 12 dollars—during our harvest time it would sometimes go as high as 30 dollars.

"You enquire what are the legal qualifications of a physician in this country? They are to pass an examination before the censors of the territorial society and before they can proceed to do that he must show the degrees of M.D., a license or a certificate of study for three years, if of a liberal education, four if not. Those presenting a degree seldom have much trouble in passing, but woe to the licentiate or the foreign student as but little mercy is shown to either. The cost is about $12 if you join the Society, which is expected. Encourage none to come, as 99 out of a hundred will be disappointed as there is not a Pontiac at every door. Our profession is overstocked in the territory and this summer more than 40 have gone away in disgust.

"A physician, to obtain a support, must four months in the year undergo everything but death. You must go almost altogether on horse-back and contrive every way to save distance by following Indian trails, or for want of these cutting through the woods to save distance frequently 30 to 50 miles per day and still have to go from morning to night. We think nothing of riding 15, 30 and 40 miles to see a patient, sometimes 80 to Saginaw (as the settlement has not and cannot support a physician)."

MEDICAL CO-OPERATION WITH LAY ORGANIZATIONS

The peculiar field of lay organizations engaged in public health is that of educating the public in medical subjects. The relations of medical to lay organizations is discussed in the following editorial in the *Illinois Medical Journal* for March:

"Co-operation of educational committees and lay organizations must of necessity be guided by some sense of ethics. It would seem requisite, at the outset of an intensive campaign to give health information to the public, that no errors should be made as to which groups of lay educators the medical profession extends the hand of co-operation.

"In order to avoid invidious contacts it should be made plain without delay that lay groups in any locality with which ethical physicians plan to co-operate will be submitted for the approval

(*Continued on page* 517—*adv. xxv*)

(*Continued from page* 516)

of the county medical society, the decision of which society shall be arbitrary.

"Lay organizations frequently misunderstand the position of organized medicine in the general health movement. There have been instances when the contact of the lay group has not been with the representatives of organized medicine, but in certain instances with individuals who did not represent the medical society. For mutual protection and achievement of the requisite end, this county decision would appear to be indicated. In case of doubt on the part of the local society, communication should be had immediately with the Education Committee of the State Society at 58 East Washington Street, Chicago, and the matter referred or prompt advice and counsel."

A HEALTH WEEK

A health week promoted by a county medical society is a unique event. The March issue of the *Atlantic Medical Journal,* the organ of the Medical societies of Pennsylvania and Delaware, contains the following editorial description of such a week in Lycoming County, Pennsylvania.

"The Lycoming County Medical Society, in conjunction with other agencies interested in public health, some time ago staged a health week which is something for other societies to 'shoot at'.

"Slips advertising health and periodic examinations were supplied to all the libraries to be given out with every book. Slips were distributed to druggists to be wrapped with every package. Health films were shown in all motion-picture houses, and posters secured from the Pennsylvania Tuberculosis Society were on display in prominent places—industrial establishments, store windows, etc. Health talks were started before service clubs, social clubs, parent-teacher associations, and other organizations. These were to be continued throughout the winter.

"All these activities were preparatory to the meeting at which Dr. William P. Brown, medical secretary of the Pennsylvania Tuberculosis Society, spoke on the value of periodic health examinations and how they should be conducted. Dr. Brown spent a week in the county, and talked to the Rotary, Kiwanis, Lions, and various women's clubs.

"This is an inspiring program, and it is hoped that other county societies may take up similar activities."

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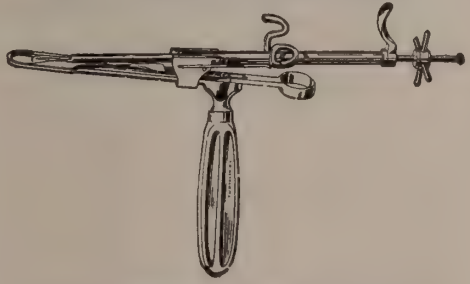

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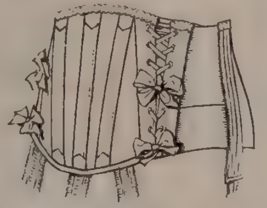

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FLETCHERISM

Dr. J. H. Kellogg of Battle Creek, Michigan, has supplied the March number of the *Illinois Medical Journal* with an article on dietic fads, Fletcherism, among them. Horace Fletcher was a friend of Dr. Kellogg and wrote popular articles on the importance of chewing every mouthful of food. As he achieved popularity, he developed an ambition to achieve a place in the dictionary and succeeded with the help of Dr. Kellogg, who wrote an article on Fletcherism which was widely copied. Dr. Kellogg says:

"I soon found myself in trouble because of a new discovery made by Mr. Fletcher and which he regarded as of such vital importance that he made it a leading feature of his philosophy. Having observed that when he masticated thoroughly he ate much less than formerly and that in consequence he had small and infrequent stools, he concluded that daily bowel movements were quite unnecessary and, in fact, cultivated constipation by discarding all roughage from his diet, laying down as a rule that everything which could not be liquefied in the mouth should be rejected. His theory was that by thorough mastication and avoiding all indigestible material, digestion and absorption could be made so complete that there would be little or no residue left for evacuation.

"Mr. Fletcher was not impressed by the fact to which I invited his attention, that the colon is an excretory organ as well as a waste disposal mechanism, and that the liver pours into the intestine daily more than a pint of bile. Mr. Fletcher himself suffered greatly from chronic toxemia. His tongue was heavily coated and his breath was highly malodorous. His dentist informed me that his teeth were decaying more rapidly than in any case he had ever seen. Prof. William James, who was at one time one of Mr. Fletcher's most enthusiastic supporters, said to a friend, 'I tried Fletcherism for three months. I had to give it up. It nearly killed me.'' Dr. Von Someren, Mr. Fletcher's son-in-law and one of his most enthusiastic disciples, was under our care at Battle Creek for some weeks, for troubles resulting from colonic stasis, and later fell into a state of profound malnutrition and died. Mr. Fletcher himself died as a result of an exacerbation of a chronic bronchitis which was doubtless aggravated, if not chiefly caused, by chronic toxemia."

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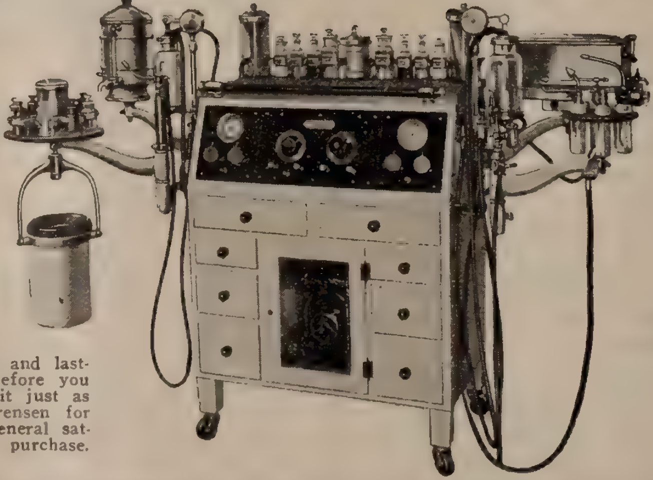

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POSTGRADUATE STUDY

[*The Journal of the Medical Society of New Jersey,* for April, discusses post-graduate study in the following editorial.—Editor's Note.]

"Among the suggestions made to the Welfare Committee for establishment of post-graduate courses available to county society members was one which called upon the larger hospitals of the state to utilize their abundant clinical material for such teaching purposes. What has come to be known as the Kings County (N. Y.) Plan has been productive of excellent results in other places.

"We are delighted to note that one of our most progressive institutions has put this plan into effective operation and invites the physicians of that region to take advantage of its excellent facilities. The *Monthly Bulletin* of the Hackensack Hospital, March number, contains the following announcements:

"X-Ray Friday Afternoons at Two o'clock

"In order to make its facilities known and to assist physicians in the interpretation of radiographs, the X-ray Department will hold a clinical session every Friday afternoon from 2 to 3 o'clock. Dr. R. E. Knapp will demonstrate X-ray plates in correlation with the pathology and then add short talks on the many conditions in which X-rays are of value in diagnosis and treatment. Special attention will be made of the newer advances in gastro-intestinal work, the use of tetra-iodide in gall-bladder diagnosis and oil emulsions to illuminate the bronchial tree.

"Physiotherapy Friday Mornings at 10 o'clock

"In response to many inquiries from physicians who are installing apparatus in their offices or who wish to learn the uses of physical agents, the hospital has arranged for a clinic every Friday morning from 10 to 11 o'clock in the Physiotherapy Department. This field of work is new and growing steadily. The hospital has installed a department with equipment to cover every phase of the work. The number and variety of patients recommended for treatment, now from 30-40 a day, offer such excellent material that the hospital feels it should be made available to any physician who is interested.

"Although the department welcomes the visits and inquiries of the physicians at any time, Dr. S. T. Snedecor will conduct a clinic at this hour, with demonstrations of the apparatus, the technic of their applications, and short talks on the many kinds of disease in which physical treatment is of value.

"This is an excellent example for other hospitals to emulate. As previously announced, Dr. O'Hanlon, Superintendent of the Jersey City Hospital, is arranging to start some similar series of lectures and clinical demonstrations at his institution. The staff of the Elizabeth General Hospital is now considering the proposition. At the City Hospital, Newark, Dr. Harrison S. Martland, has been for some time holding a "Medical Conference" each Monday evening at 10 o'clock using the autopsy material that comes under his official observation as City Physician. The many excellent hospitals in this state make it possible to have at least one central point of graduate study in every county, and every member of each county medical society should be cordially invited to attend and should exhibit an active participating interest in these periodic conferences.

"The plan is easy of execution. It calls for no special investment of funds. The teaching material is at hand in every hospital. The staff constitutes an existing faculty, and in assuming the role of "teacher"—the members are not presumptuous at all, not pretending to any special skill as educators, but merely offering to share with their colleagues the opportunity to study medical problems of the day.

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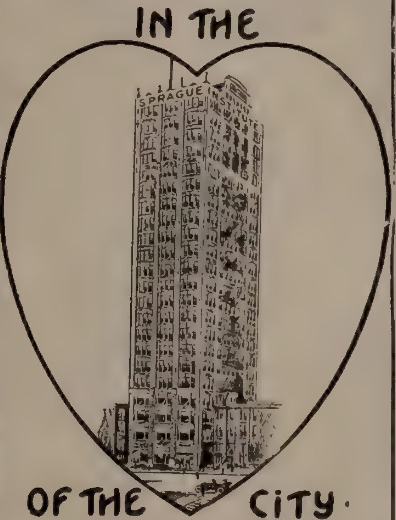

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SAWDUST BEDS FOR THE HELPLESS UNTIDY INSANE

The April 16th issue of the *Journal of the American Medical Association* contains the following brief article by Dr. W. R. Thompson of the Eastern State Hospital, Lexington, Kentucky, describing a sawdust bed for patients who cannot control their excretions:

"Dr. F. G. LaRue, superintendent for the Eastern State Hospital at Lexington, Ky., noticed in the quarterly report for July of the Department of Public Welfare of Illinois a short description of sawdust beds, in use in a hospital in Bauch, Germany, for the helpless, untidy insane. This class of patients is the most troublesome of all in any hospital, and any provision that adds to their comfort and makes their care easier is worth installing.

"He at once had them installed in the Eastern State Hospital for this class of patients, and the results have been so satisfactory after more than a year's trial that I feel that all hospitals should know of them. So far as I know, this is the only hospital in this country using them.

"At present, there are thirty-four of these beds in use, and every one in charge, including the attendants, is highly pleased with the results. The beds are oblong boxes, made of 1 inch dressed boards; 6½ feet long, 30 inches wide and 18 inches deep, standing on legs 12 inches high and painted white.

"They are filled with fresh sawdust within 6 inches of the top, the sawdust having been first passed through a one-fourth inch sieve. The sawdust should not be too fine on account of packing, and may be renewed as a whole at any time with but little trouble, if necessary. Rollers may be put on these beds as on any other bed. Friends and relatives of patients have never made any complaint about their use.

"The patient, clothed in a short night shirt, lies directly on the sawdust, which readily conforms to the shape of the body, but does not in any way interfere with whatever movements of the body or limbs he may be able to make. A pillow is placed under the head and the patient is covered with sheet and blankets, according to the temperature of the room.

"The excreta from the bowels and kidneys with the small amount of sawdust thereby soiled is scooped out immediately with an ordinary 6 inch scoop and destroyed. Fresh sawdust is added from time to time to keep the total amount up to the 12 inch level; it is stirred to the bottom several times a week to prevent its packing too hard, and the top is easily kept level by means of a scoop or the hand. The beds are cared for by fairly intelligent patients under the supervision of an attendant.

"The advantages of these beds are as follows: They are sanitary, and neat and clean in appearance; all odor is eliminated; bed sores do not develop and readily heal when patients with them, even far advanced paralytics, are placed in the beds. They can be quickly made by any carpenter, and the original cost and cost of maintenance is small. Restraint is not needed to keep the patients from falling out of bed as they often did, when bruises and sometimes broken bones resulting, regardless of care and attention.

"The saving in laundry is quite an item in hospitals and a helpless, untidy patient will soil from twelve to eighteen sheets every twenty-four hours. By the use of these beds, the number of sheets is reduced to not more than three a day, and seldom this many. Night shirts are seldom soiled, and the patient is never wet from the discharges from the body, as the sawdust absorbs all moisture at once. It is surprising what a small amount is dampened by a free evacuation of the bladder.

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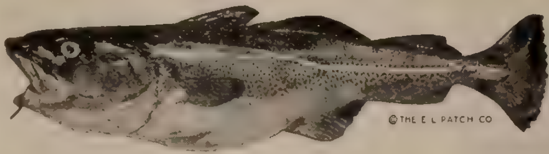
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THE TREATMENT OF FRACTURES

The ambulatory treatment of fractures of the lower extremities is a method of treatment that involves the use of the injured limb as a means of locomotion. This idea is not exactly new, since orthopedic surgeons, as early as 1878, conceived the idea of allowing a patient with a fracture of the thigh or leg to walk about by means of apparatus designed to give support and corrective pressure to the injured member.

Dr. Scudder in his book, "The Treatment of Fractures," enumerated the advantages and disadvantages of the ambulatory method of treating fractures: "Time is saved; the general health of the patient is conserved; the danger of hypostatic pneumonia is lessened; the primary swelling is often avoided, and is always less than by older methods; the secondary edema and muscular weakness are less; the functional usefulness of the whole leg is greater; there is less atrophy of the muscles of the thigh and leg; the amount of the callus is diminished; there is less stiffness of neighboring joints; and union occurs at an earlier date."

The only outstanding difficulty, or disadvantage, that Scudder lists is the lack of perfect immobilization, and this has been secured since the time of his writing in the "Ambulatory Pneumatic Splint." This splint permits the comfortable use of extension, counter-extension, and gives perfect immobilization; all combined with an unusual degree of comfort and convenience in bed cases.—Adv.

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SOME UNUSUAL EFFECTS FROM THE USE OF CYCLOPLEGIC DRUGS*

By E. C. ELLETT, M.D., MEMPHIS, TENN., WITH DISCUSSION BY DR. ALEXANDER DUANE

SHOULD there be any criticism of the title that has been used for this contribution, "Unusual Effects of Cycloplegics," on the ground that the effects noted in the first two cases are not unusual, a brief reference to the literature of the subject may not be out of place. In 1910, when Gifford reported a case of glaucoma brought on by the use of homatropine, only two other cases had been reported, and in 1916 when he presented the subject to the Section on Ophthalmology of the A. M. A. he was able to collect only eight more cases from the literature, including four more of his own reported in that paper. But nearly every one who spoke in the discussion was able to add one or more cases, and it is probable that many more cases occur than those reported.

Case 1. Mrs. H. M. aged 31, was seen in September 1906, complaining of headache and blurring of the vision on use. She was wearing glasses, +1.00 +.50 ax 180° in each eye. The only significant thing in her history was that her father was blind as the result of glaucoma. A cycloplegic was not employed, but her manifest hyperopia of +1.75 was corrected and she was relieved of her symptoms. The pupils, eye grounds, etc., were all normal. In November 1906 she was treated for conjunctivitis and soon recovered. In 1910 there was a return of the headache, and in my absence my assistant refracted her under homatropine. The error was +2.25 +.50 ax 90° in each eye. A change was made in the glasses and she was soon relieved. There were no unfavorable results from the use of the cycloplegic. In November 1916, being then 41 years of age, she was again troubled with her eyes, and in my absence from the city she again consulted the same physician whom she had seen in my office, who was now practicing independently. He again used homatropine, presumably in the same strength (Gr. 12 to the oz.) and in the same manner (six drops at ten minute intervals) as before. The pupils remained dilated beyond the usual time, and three days after the drops were used the right eye became red and painful. Eserine was used, 8 grains to the ounce, and depressed her so much that her physician was called to see her. Five days after the homatropine was used, that is November the 5th, 1916, I saw her and found the following:

O. D. Ball red, pupil 5 mm in diameter and a little irregular. Vn. 20/100, +2.50 equals 20/20. Fundus normal. T. (McLean) 35. O. S. Ball white, pupil 1.5 mm, Vn. 20/60, +2.50 equals 20/20 m. T. (McLean) 50. Fundus normal.

She was treated with myotics and dionin, which were interrupted about two weeks later on account of the appearance of signs of iritis in the right eye. The vision remained normal with glasses, the pupil of the right eye remained larger than the left, usually about 5 mm, and the iris atrophied in its upper part, the tension seemed normal to the fingers, and varied from 20 to 35 with the McLean tonometer. The fields, vision and eye grounds were normal. The patient was not regular in her visits, and myotics were used irregularly. I saw her last, or rather she saw me last, on September the 2nd, 1917, when the only thing abnormal was the slightly dilated right pupil. A year later she reported to my office while I was in the Army. The right eye showed all the signs of acute glaucoma, but the tension was not taken except with the fingers, and no record was made of the vision, nor any note of the condition of the left eye. Under the usual medical treatment she improved, and was told that unless the improvement was prompt and permanent an operation would be necessary. She left the city soon after this and went to Cleveland, Ohio, where she consulted an oculist who advised an operation. This she declined and I saw her again in June 1919. The right eye could see light. T. 60 (McLean) pupil dilated and vertically oval, due to the iris being atrophied above, media clear, disk deeply cupped. The left eye was blind and showed coarse injection, a widely dilated pupil and an opaque lens. Lagrange operation on the right eye was without result, and she now has added to the loss of her sight, the tormenting symptoms which accompany the epithlial dystrophy so common in such eyes.

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*Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

Case 2. Mrs. F. C. aged 28, was seen in March 1921 with the history that at the age of 14 she had sore eyes, with poor vision and photophobia, first in O. D. and later in O. S. She recovered, but had a similar trouble at 18, and the vision of the right eye has never been so good since then. Vision was O. D. 20/40. O. S. 20/30 p. There was a slight uveal ectropion at the margin of the pupil and both corneae showed fine deep vessels. At a later date with the slit lamp these were seen to be carrying blood. The former trouble was evidently an interstitial keratitis. The Wassermann was negative. Under homatropine the correction of a low compound M As gave 20/20 + and 20/20 p. The homatropine solution contained twelve grains to the ounce and was dropped in the eye every ten minutes for an hour. Nine days later word was received from her home in a near-by town that the left eye was red, blurred and painful, and that the trouble began with a pain in the eye three days after the drops were used. Letters and telephone messages secured her attendance at the office on April the 9th, nearly a month after the other test. The right eye was normal, vision 20/25 with glasses. The left eye saw 20/70 with glasses. Pupils 5 and 6 mm. Left not active to light. The eye grounds were normal. Tension was O. D. 48, O. S. 100 (McLean) tonometer. Under eserine the tension fell and vision rose in O. S. to 20/20. In ten days the tension was McLean R. 28, L. 24, Gradle R. 24, L. 11. Pupils 2 and 6 mm. Between this date and July the 18th the tension varied in the left eye from 42 to 90 McLean, and from 42 to 52 Gradle, the pupils about 4 mm and inactive. The fields showed O. D. slight contraction. O. S. slight contraction and a variable relative scotoma in the lower temporal quadrant. This sometimes involved the blind spot, but neither on the ordinary perimeter or Peter's campimeter or the tangent screen could I ever demonstrate any constant enlargement of the blind spot. Dr. W. H. Wilmer, who saw her in November 1921, thought her blind spot was almost double its normal size in each eye, but I could never make it so. Dr. Wilmer advised operation if the symptoms persisted. On July the 18th, 1922, an iridotasis was done on O. S. and on the 28th the tension was 35 McLean. September the 13th, T. McLean 60, Gradle 52. The edge of the pupil was visible but the pupil was displaced up and out. The pupil reacted to slight and to eserine. March 1923, T. Hg. 24. McLean 40. Eserine was used in the left eye from the time of the operation until January, 1924, when it was stopped. Vision was normal. T. Hg. 24, pupil active, in October, 1925, the tension with Schiotz together with 26 and 23, Gradle 33 and 15, Hg. 12 and 13. Eye grounds normal, vision 20/30 and 20/20 with glasses. Pupils active. Fields still showed a slight contraction in each eye.

Since 1916 a few additional cases have been reported.

W. W. Lewis [1] reports the case of a girl aged 22 who presented evidences of a former interstitial keratitis in the shape of obliterated vessels in the cornea. Homatropine, used for estimating the refraction, caused an attack of glaucoma. Only one drop of homatropine solution, 3%, was used. The eyes were inflamed, very hard, vision reduced to perception of light and corneae steamy. These symptoms disappeared in twelve hours under eserine, hot applications and sedatives. The subsequent history, after a few days, was not known.

It is interesting to note that one of my cases had evidences of a former interstitial keratitis.

Lindner [2] reports attacks of glaucoma after the instillation of homatropine.

The first case presented by Dr. Lindner concerned an old woman of 84 years, with thrombosis of a lateral branch. The glaucomatous attack occurred on the evening of the same day, although precautionary measures had been taken through twice repeated instillation of pilocarpin, and could be relieved only after energetic employment of myotics agents. In the other case, a man aged 44 years, homatropine was used, in the presence of a moderately deep anterior chamber, for the skiascopic determination of hypermetropic astigmatism. The glaucomatous attack produced thereby could not be relieved by means of pilocarpin but the increased pressure was relieved by puncture. "The relative rarity of such cases had probably led to a certain lack of caution in the employment of homatropine in recent years."

There are several points that appear from a perusal of the reported cases.

1. This form of glaucoma is more common in women. Of the eleven cases mentioned by Gifford in 1916, eight were women. Both of my patients were women.

2. The possibility of this unfavorable result is small. Millions of people have had homatropine put in their eyes and very few have ever developed glaucoma as a result of it.

3. Homatropine and other mydriatic drugs can not be said to cause glaucoma. They merely precipitate its development in eyes predisposed to its occurrence.

4. In the use of eserine and other myotics after the mydriatic has served the purpose for which it was instilled, we have an almost certain preventive of any trouble of this nature. Therefore the occasional occurrence of glaucoma is no more a reason for not using mydriatic drugs than is an occasional death from a general anesthetic a reason to withhold these blessings from those who need them. The dangers in each in-

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[1] Am. Jour. Oph. Vol. 5, p. 540, 1922.

[2] Klinische Monatsblact, fur Augenheilk. 1925. 75, p. 478.

stance should be recognized and precautions taken to prevent their occurrence.

5. In more than any other form of glaucoma, that which follows the use of mydriatic drug seems to be favorably influenced by myotic drugs and medical treatment.

6. It should be the invariable rule to instill a myotic drug in the eye after the test is completed for which the mydriatic was employed.

The other case is of quite a different character.

Case 3. Mrs. H. aged 41, was seen in 1904 complaining of headaches, for which she had worn glasses for six years. From subsequent observation it was found that she was of a nervous temperament and easily disturbed, and in the twenty years that I have known her as a patient she has shown many and varied symptoms of functional disturbance. When first examined she had a baby less than a year old and since menstruation was re-established she had complained of ocular and occipital headache. The vision had always been poor in the left eye but she had never squinted. The eyes were normal inside and out. Vision O. D. 20/20, Manifest H. +1.75. With +3.00 she read J i. O. S. 18/200, not improved by glasses. Binocular vision and 4° exophoria. June 24th, 1904, homatropine and cocaine drops were instilled five times for refraction, the homatropine in the strength of twelve grains to the ounce. The test gave O. D. +2.25 equals 20/20. O. S. +5.50 +1.00 ax 90 equals 20/80. Three days later she accepted full correction and with +1.00 added she read Ji and Jio. August the 11th she complained that distant vision was blurred and it was necessary to reduce the glass .50 D. to get 20/20. It was then noted that the right pupil was still dilated to the fullest extent, that is as widely as when the homatropine was first instilled. The eye was normal as to tension, field and vision. Eserine contracted the pupil, but one drop a day did not keep it down. Reducing the distant glass to +1.75 relieved the head and eye pains. In November, five months after the drops were put in, the right pupil was still 7 mm in diameter and inactive. The left 4 mm and active. There was a slight variation in the pupils. In December 1905, 4 and 3 mm and with +1.75 she read Ji and 20/20. 1906, 4 and 3½, 1907, 5 and 3½, vision O. D. +1.00 equals 20/20, and Ji. with +2.00. 1909 pupils 3½ and 3, vision 20/20 and Ji with +1.50, 1910 Same. 1919 4 and 3 mm, 1921 4½ and 3, distant vision same, +3.00 Ji. No other symptoms appeared, tension, eye grounds and visual fields remaining normal, vision as recorded. In 1923 during my absence from the city, a colleague diagnosed glaucoma in the left eye, and performed an iridectomy. The diagnosis must have been based on the poor vision, which had always been present. Her hospital record was to the effect that the right pupil was normal, which it had not been for twenty years, and there was no note of fundus changes or other symptoms upon which the recorded diagnosis of "secondary glaucoma" was made. Fortunately the poor eye was selected for this display of operative enthusiasm. In June 1924 the condition of the right eye was unchanged. February 1926, right pupil 4½ and inactive to light or accommodation. Left pupil, the round part is about 3½ and inactive, vision 20/20 and 20/60 with glasses. Reads Ji O. D. woth +2.50 added Tension Sch. 22 O.U.

This case is unique in my experience and I have only found one case in the literature at all comparable to it. Decker[3] reports the case of a man, aged 36, who was refracted under homatropine. One drop of a 1.25% (6 grains to the ounce) solution of homatropine was put in the eyes every fifteen minutes for three doses. The refractive error was O. D. +1.50 +.50 ax. 90. O. S. +1.50 +1.00 ax 85. There were fine opacities on the posterior capsule of the right lens, the eye being otherwise normal. The pupils were normal in size after ten days and reacted to light but not to accommodation, but the accommodation was permanently suspended, or at least it was still absent fourteen months after the homatropine was used. A case of Dr. Harold Gifford's reported to Dr. Decker in a personal communication is mentioned in which the accommodation had not returned after two or three years.

In my patient presbyopia was already established and the muscle fibers of the iris were affected almost entirely, the ciliary muscle escaping. Though the drug was used in both eyes, only the right or better eye, was affected permanently.

In a few cases, four to be exact, marked constitutional symptoms have been observed in patients who had some mydriatic drug instilled into the eyes. In three of these patients the mental disturbance was most pronounced, and it is probable that an error occurred in using hyoscin instead of homatropine, due to a mistake in labels on the part of the manufacturer. The symptoms were not serious and soon passed away. These cases are mentioned because they are the only ones in my observation except those mentioned in this report, where unpleasant or unlooked for effects followed the use of mydriatic drugs.

DISCUSSION OF DR. ELLETT'S PAPER BY ALEXANDER DUANE, M.D., OF NEW YORK

Glaucoma following the instillation of Homatropine is certainly very rare. I use homatropine very frequently and, moreover, quite often in the sort of cases in which glaucoma is most likely to develop, *i.e.*, subjects over 40. I think my records indicate that I have used homatropine more than 6,000 times, and I have had only one case of glaucoma attributable to its use. It is noteworthy that in this case, as in Dr. Ellett's, homatropine had been used previously without ill effect. In addition, I have seen homatropine used in a great number of cases examined by others—in the clinics and in Dr. Herman Knapp's office when I was acting as his assistant, and in none of these was glaucoma induced.

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[3] Am. Jour. Oph. Vol. 7 p. 443, 1924.

With regard to this accident my experience leads me to endorse completely all that Dr. Ellett has said. It occurs so rarely that it furnishes no contraindication to the routine use of homatropine in refraction work. This is particularly so when we consider that as Dr. Ellett rightly says, this accident occurs only in those predisposed to glaucoma, who, we may be sure, would have developed an attack anyhow, and it is in that case rather fortunate, at least for the patient, that the attack should develop under our eyes so that immediate steps can be taken to relieve it and to proceed at once to further thoroughgoing treatment of the eye condition, thus unexpectedly disclosed.

Of course, we should be on our guard and try to avoid the production of glaucoma by a cycloplegic. Before instilling homatropine in persons of forty or over, I regularly take the finger tension, and in cases of doubt the tension with the tonometer. In fact, I may say I have got into the habit of taking the finger tension as a routine measure in all cases of presbyopic age that come to me for examination of the refraction whether I am going to use a cycloplegic or not. I think it also a good plan in the older subjects after the examination under a cycloplegic is over to take the finger tension again and to instill eserine.

One other rather more frequent inconvenience that occurs after the use of homatropine is an unduly prolonged effect on the accommodation. In this regard I have made studies in several thousand cases of homatropine cycloplegia. In all of these cases, careful measurements of the accommodation were made before the homatropine was instilled, and in a very large number further measurements were made a week or so later. My results may be thus stated:

1. An effect on the accommodation obvious to the patient, *i. e.,* interfering with his ability to read, lasts usually for about 48 hours. In some, especially in the young, the ability to read may be regained in 24 hours or even much less. This is no indication that the accommodation is not considerably affected, and hence reading sooner than 48 hours should be discouraged. As opposed to these cases there are not a few cases in which the evident disability of the accommodation lasts for from 48 to 60 hours.

2. The dilatation of the pupil usually persists for about the same period, *i. e.,* 48 hours and sometimes longer. It may be evident when there is no disability for reading.

3. In some cases the disabling effect on the accommodation and pupils is prolonged for several days (3 to 6). I have records of eleven such cases. They ranged in age from 15 to 50 (five being under and five over 32), and for the most part showed a slight hyperopia and astigmatism. In several the cycloplegia was marked and, although eserine was repeatedly instilled, this had no permanent effect. It is to be noted that all but three of these cases occurred in the days before I made up my own homatropine solution, as I have done invariably now for 18 years, and I suspect strongly that in some of these cases there had been substitution of atropine. This seemed particularly likely in three cases which all occurred about the same time and in all of which, the same solution was used.

4. Apart from these cases, which certainly are quite rare, my observations show that quite generally during a period of some weeks after the instillation the accommodation when measured by careful tests is less than when tested before the drops were used. This causes the patient no inconvenience as a rule, but it has a very direct bearing on the prescription of glasses. One conclusion, important in practice, which I have drawn from my measurements is that it is unwise to attempt to prescribe a glass from a post-cycloplegic examination made within a week of the time the homatropine was instilled. If the examination is made sooner the residual deficiency of accommodation may be such that, particularly in presbyopic cases, we are led to prescribe a glass that is too strong for near work.

Whether this prolonged moderate deficiency of accommodation found after the use of homatropine represents a real reduction produced by a lingering effect of the drug or rather represents simply a relaxation due to the let-up allowed by the use of a correcting glass, I do not know. although the latter explanation seems to me more probable.

In some patients—but fortunately very few—we find an actual idiosyncrasy against homatropine, which nauseates them or makes them feel faint or otherwise uncomfortable. In such cases another cycloplegic may be tried, but in general I have thought best to depend upon results made without cycloplegia.

In a few cases, on the other hand, homatropine renders the patient more comfortable, affording a sense of rest and relief. One patient of mine, a physician, told me that for quite a period in her life her eyes were never comfortable except when under homatropine.

THE NECESSITY FOR BLOOD SUGAR ESTIMATION IN SUSPECTED DIABETES WITH OR WITHOUT GLYCOSURIA

By HORACE GREELEY, M. D., BROOKLYN, N. Y.

IT was formerly believed that all cases in which the carbohydrate metabolism was faulty could be detected by the symptoms and examination of the urine. That this was a mistake has been shown, during the last few years, in numerous contributions to medical literature reporting cases with diabetic symptoms without glycosuria, but with abnormally high blood dextrose. As additional evidence on this subject, and for other points of interest, in this article are presented the findings in a hundred cases in which blood and simultaneous urine analyses were made during the past year. All the patients were from the private practice of Brooklyn physicians, referred for the examinations in question.

Specimens of blood and urine were taken at the same time, and the patients were uniformly on an empty stomach. Folin's method of blood sugar estimation was employed in all instances. Copper test of the urine (Fehling's), confirmed always by fermentation, was the basis of all urinary findings.

None of the cases reported in this article were receiving insulin at the time of examination, so that the high blood sugar findings, at the time the urine was sugar free, could not have depended upon insulin-altered dextrose, as was suggested as a possible explanation of high blood sugar findings without glycosuria, in a series of diabetics reported by Major and Davis (J. A. M. A., Vol. 84, No. 24, p. 1798, June 13, 1925).

Classifying the 100 cases according to the amount of blood sugar present, we find, from the table, that among the cases with primary disturbance of the carbohydrate metabolism that (a) 19 showed blood sugar of 120—150 mgs., but only two of these had a simultaneous glycosuria (.1%), none showed signs of renal irritation; (b) that 51 had over 150 mgs. of blood sugar, and that, of these, 44 had neither albumin nor renal elements (casts, etc.) in the urine, but 30 of the 44 showed glycosuria of from .1—5%. Renal irritation was manifested in the remaining 7 of the 51 cases, which 7 also showed glycosuria (.1—3%). Cases in which the carbohydrate abnormality could be regarded as secondary comprised (c) 27 of nephritis, including 4 with blood sugar under 120 mgs. (one showing simultaneous glycosuria of .13%), 16 with blood sugar of 120—150 mgs. (one with glycosuria of .1%), and 7 with 150—250 mgs. (one with glycosuria .01%); (d) the three remaining cases of the series were one of acute nephritis (case 50) which had a blood sugar of 167 mgs., one of renal glycosuria, with 105 mgs. in the blood and 2% in the urine, and one four-plus Wassermann case.

Of the total 100 cases, 24 had been diagnosed previously as diabetic, and 76 were "new cases" in which the examinations were made to confirm clinical suspicions or as "feelers" in obscure debility cases.

All the 24 known diabetics, except one, besides an abnormally high blood sugar showed sugar in the urine—this indicating how largely the recognition, in everyday practice, of a diabetic depends upon the presence of glycosuria.

Of the 76 "new cases," 47 can be classed as uncomplicated disturbances of the carbohydrate metabolism. Omitting one of these (the case of renal glycosuria) we find, of the remaining 46 cases which showed diabetic blood sugar findings, only 15 showed glycosuria simultaneously with hyperglycaemia. Consequently, the diagnosis would have been missed in 2/3 of the cases, if the blood sugar estimation had not been made.

To show the definiteness of the diabetic conditions that would have failed of recognition without blood sugar estimation, attention is called to the fact that, of the 31 "new cases" without sugar in the urine, 16 had 120—150 mgs. of dextrose per 100 c.c. of blood, 8 had 150—200 mgs. of dextrose, 6 had 200—300 mgs., and 1, 400 mgs.

The normal range of blood sugar is usually put at between 80 and 120 milligrams, in 100 c.c. of blood, and the kidney threshold has been stated to be at about 150 milligrams. It is apparent that such a normal range is dependent upon several factors: (1) the amount of carbohydrate taken in the food, (2) the rate of its absorption, (3) the rate of sugar storage, (4) the operation of the body's mechanism for freeing and utilizing the stored sugar, (5) and lastly the sensitiveness of the kidneys to blood sugar, and their excretory power over it when it reaches a certain amount.

(1) With the average amount of carbohydrate, the average normal person certainly shows no variations in blood sugar inconsistent with the above mentioned normal range, and it may be said that such a person's blood sugar (with the usual diet) varies but little at any time of the twenty-four hours, owing to either the stage of digestion or the amount of body activity; (2) the rate of absorption of carbohydrate probably never exceeds the rate of storage in a normal person, when the absorption waits on hydrolysis, as of starchy food, but when a sugar, such as

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NOTE: Distinct results with either Fehling's, Benedict's, or other qualitative copper tests for sugar in the urine are only obtained when 0.25% or more of dextrose is present, since the amount of reaction given by lesser amounts of dextrose may be simulated by various other substances present in the urine. The procedure adopted was to ferment with yeast all urines with which the copper test gave a positive or a suspicious reaction. By this method, urines containing 0.1% or more of sugar give definite amounts of carbon dioxide, and even half the percentage stated is clearly shown. The fermentation tubes used were especially graduated through fermentation in them, for a given time, in an incubator, of various definite percentages of dextrose added to normal urine. All yeast used was tested for unfermented carbohydrate in a control.

TABLE OF CASES REPORTED

Case	Patient	Blood Dextrose Mgs. in 100 c.c.	Urine Dextrose	Other Urine Pathology	
1.	M. N.	157	0	0	Debility
2.	M. P.	133	0	0	"
3.	R. J.	125	0	Casts, erythrocytes, albumin	Chronic nephritis
4.	J. H. R.	154	0	0	Debility
5.	J. McB.	400	0.1%	Occasional cast and trace of albumin	Diabetes
6.	M. C.	190	0	0	Debility
7.	A. A. W.	133	0	0	"
8.	E. P.	222	0	0	"
9.	G. C. S.	83	.13%	Casts and albumin	Chronic nephritis
10.	A. M. B.	80-182	0	Casts, erythrocytes, albumin	" "
11.	P. T.	125	0	" " "	" "
12.	H. K.	108	0	" " "	" "
13.	C. F.	333	3%	Occasional cast and trace of albumin	Diabetes
14.	M. D.	211	.2%	Few casts and albumin	"
15.	M. G.	333	1.5%	0	"
16	F. W. D.	95	0	Casts, erythrocytes, albumin	Chronic nephritis
17.	M. Z.	181	0	0	Debility
18.	L. R.	154	0	0	"
19.	M. F.	286	0	0	"
20.	E. S. P.	205	0	0	"
21.	L. F.	174	1%	0	"
22.	M. A. L.	182	0.5%	0	"
23.	K. K.	333	0.1%	Few casts and trace of albumin	"
24.	N. B.	191	0.5%	0	"
25.	E. M.	421	4%	0	"
26.	J. B.	118	0	Casts, erythrocytes, albumin	Chronic nephritis
27.	E. J. S.	125	0	0	Debility
28.	J. F. C.	129	0	0	"
29.	J. G.	143	0	Occasional cast and trace of albumin	Chronic nephritis
30.	M. H.	121	0	" " " " " "	" "
31.	K. K.	571	4%	0	Diabetes
32.	M. M.	400	0.1%	Occasional cast and 0.5% albumin	"
33.	M. C.	182	under .01%	Casts, erythrocytes, albumin	Chronic nephritis
34.	S. G.	180	under .01%	0	Debility
35.	R. R.	250	.1%	0	Diabetes
36.	M. L.	571	2.5%	0	"
37.	A. W.	250	3.8%	0	"
38.	N. W.	333	0.1%	0	Debility
39.	P. F.	330	0.1%	0	"
40	W. R.	133	0	0	"
41.	T. J. S.	134	0.1%	Casts, erythrocytes, albumin	Chronic nephritis
42.	C. W.	125	0	Casts, erythrocytes, albumin	Chronic nephritis
43.	F. M.	133	0	0	Debility
44.	M. K.	125	0	0	"
45.	A. H. S.	615	4.5%	0	Diabetes
46.	M. M.	400	0	0	Debility
47.	G. B.	235	0	Casts, erythrocytes, albumin	Chronic nephritis
48.	E. P.	285	0	0	Debility
49.	J. G. H.	333	2%	0	"
50.	A. H.	167	0	Casts, renal epithelia erythrocytes, albumin	Acute nephritis

dextrose, is taken it is known that amounts such as 100—200 grams, by mouth, cause a rise of blood sugar to rarely more than 150 mgs. per 100 c.c. of venous blood (finger blood may show from 10—30% more) in normal persons. Such amounts are sometimes taken experimentally, as in tests for carbohydrate tolerance, although a person who ate over half a pound of candy at once would exceed this.

(3) The rate of storage is usually thought to be mainly dependent upon the liver's glycogenic activity, and this, as shown in the dextrose test of hepatic function, indicates that when as much as 15 grams of this sugar is thrown into the circulation of a normal adult, the blood sugar, raised at first to around 150 mgs. (as much as 100%) returns to normal within a half hour, indicating a glycogenic rate for the liver of ½ gram of dextrose per minute, ample to keep well ahead of the maximum normal absorption from the gastro-intestinal tract. An authority (Johansson J. E. Skand. Arch. Physiol., 1909, XXI, 1) states that X-ray evidence indicates that it takes an adult four hours to absorb 200 grams of dextrose, but when one considers the rapid absorption of large amounts of water from the intestinal tract, and the fact that dextrose is absorbed unchanged, it is difficult to believe that a pint of a watery solution of this sugar could remain in a normal intestine over an hour.

As has been shown by Foster (J. Biol. Chem., Vol. LV., 2, Feb. '23) and others (McLean, H.,

51.	W. M.	450	2%	0	Diabetes
52.	M. P.	121	0	0	Debility
53.	M. F.	333	1%	0	Diabetes
54.	M. G.	125	0	0	Post partem.
55.	A. B.	200	0	Casts, erythrocytes, albumin	Chronic nephritis
56.	M. K.	200	0.5%	0	Debility
57.	C. S.	475	3%	Casts and albumin	Diabetes
58.	J. M.	222	0	“ “ “	Chronic nephritis
59.	F. C.	222	0	“ “ “	“ “
60.	M. McG.	200	0	0	Debility
61.	A. F.	105	2%	0	Renal glycosuria
62.	A. B. E.	666	5%	0	Diabetes
63.	D. G.	143	0	0	Debility
64.	M. P.	200	0	0	“
65.	M. L.	200	0.2%	0	“
66.	F. H.	400	2%	Casts, erythrocytes, albumin	Diabetes
67.	M. K.	133	0	“ “ “	Chronic nephritis
68.	E. K.	125	0	Casts and albumin	Wassermann 4— Plus
69.	J. S. R.	143	0	0	Debility
70.	R. P.	400	3.5	0	Diabetes
71.	M. J.	129	0	0	Debility
72.	M. F.	133	0	0	“
73.	A. J. C.	143	0.1	0	“
74.	G. J. F.	167	0	0	“
75.	A. P.	143	0	Erythrocytes, leucocytes, albumin	Kidney stone
76.	J. P.	125	0	0	Debility
77.	M. M.	308	2%	0	Diabetes
78.	J. M.	333	4%	0	“
79.	J. H.	125	0	0	Debility
80.	A. G.	125	0	Casts, erythrocytes, albumin	Chronic nephritis
81.	M. U.	222	0.1	0	Debility
82.	M. E.	250	0.5	0	Diabetes
83.	S. C.	167	0.1	0	“
84.	M. L.	143	0	0	Debility
85.	M. H.	143	0	Casts, erythrocytes, albumin	Chronic nephritis
86.	J. St. J.	138	0.1	0	Debility
87.	M. D.	154	0.1	0	Diabetes
88.	F. H.	143	0	Casts and albumin	Chronic nephritis
89.	A. H. B.	123	0	Casts, erythrocytes, albumin	“ “
90.	J. K.	143	0	Casts and albumin	Debility
91.	M. L.	471	2.8%	0	Diabetes
92.	M. H.	182	0	0	Debility
93.	J. C. C.	200	1%	0	Diabetes
94.	E. N.	200	0.1	0	Debility
95.	M. L.	200	0.4	Casts, erythrocytes, albumin	Chronic nephritis with uremia (died)
96.	J. C.	200	0	Casts and albumin	Chronic nephritis
97.	G. J.	125	0	Casts, erythrocytes, albumin	“ “
98.	A. B.	133	0	Casts, erythrocytes, albumin	“ “
99.	C. W.	157	0	0	Debility
100.	W. F. M.	222	0	0	Diabetes

and de Wesselow, O.L.V., Quart. J. Med., 1921, XIV, 103) it takes up to half an hour for this glycogenic mechanism to get into full action, so that the highest blood sugar range in a normal person occurs within 30 minutes of the ingestion of any sugar.

(4) The nerve center's control over the blood sugar curve has been supposed to operate indirectly through the suprarenals, and cases showing hyperglycaemia with increased blood pressure have sometimes been blamed upon hyperactivity of these glands. However this may be, it has been certainly demonstrated that the utilization of all blood sugar is dependent upon the aid of the internal secretion of the pancreas, such as is represented by insulin, so that maintained abnormal elevation of the blood sugar above 120 mgs. per 100 c.c. of blood, or even above 110, can always be looked upon as of a diabetic nature (i.e.: pre-diabetes, early or advanced diabetes, according to amount).

(5) Roe and Irish determined that the sugar threshold of 100 cases of diabetes ranged between 80-310 mgs. of blood sugar (J. A. M. A. 1406, Vol. 84, 19, May 9, '25) and concluded that a high threshold is due to a complicating renal condition.

Renal glycosuria (apparent, at least) occurs. Case 61 of this series, with a blood sugar of 105 mgs., showed 2% in the urine. As a later examination showed a similar amount of urinary sugar, this case (the only one of the series) can be classed as renal glycosuria. This condition seems to be distinct, according to consensus of opinions, owing, principally, to the fact that such cases store experimentally administered dextrose in normal fashion (Paullin, Glucose Utilization in Renal Glycosuria, Arch. Int.

Med. 37: 88, Jan. 26). The condition is accordingly, probably, due to unusual sensitiveness of the renal epithelium to dextrose.

That this sensitiveness varies is shown in the cases of nephritis, some of which show abnormally high blood sugar, and others a slight glycosuria, when true diabetes can be excluded, by either dextrose tolerance tests or by symptoms.

Of the cases of chronic nephritis mentioned, it should be noticed that 33, 41, and 95 show both hyperglycaemia and glycosuria. Case 95 was suffering from uraemia at the time of examination and died within 24 hours. A case of acute nephritis (No. 50) showed 167 mgs. of blood sugar.

According to Linder, Hiller and Van Slyke (J. Clin. Invest. 1:217, Feb., '25), in severe glomerulo-nephritis, hyperglycaemia and glycosuria are present, and the threshold is apparently lowered. In sclerotic kidney, the blood sugar is higher than usual and the threshold is raised. As they found that the combustion of sugar was as efficient in all types of nephritis as in normal persons, they concluded that hyperglycaemia in such cases was due to some obscure factor.

It seems certain, however, that renal disease can directly cause both hyperglycaemia and glycosuria, since injections of sodium tartrate cause nephritis in rabbits, which is accompanied, irregularly, by either of these manifestations (Underhill and Wilens., J. Biol. Chem., Vol. LVIII, 1, Nov., 1923). "Phlorhizin diabetes" has also been proved to be due to kidney injury (Nash, J. Biol. Chem., LI, 1, Mar., 1922). In this connection one is tempted to suggest the following explanation of the hyperglycaemias of renal disease: This is that, since the nephritis eventually causes retention of wastes, and these accumulated wastes (nitrogenous or other) act directly or indirectly to increase the blood pressure, a process with which the suprarenals are concerned, there is an over-stimulation of suprarenal activity. Since suprarenal secretion stimulates the output of liver sugar, there is a consequent increase of blood sugar beyond that required under normal conditions. The cause of the glycosuria is plainly the damaged epithelium.

CONCLUSIONS

The absence of sugar from the urine does not show that a patient is not diabetic, in more than one-third of the average run of cases.

The presence of sugar in the urine does not prove a case diabetic, since we might be dealing with nephritis or even renal glycosuria.

The presence of evidence of nephritis, both clinical and urinary, together with glycosuria, might be due to either primary nephritis with a glycosuria due to renal deficiency, or yet to a nephritis caused by a pre-existing diabetes.

Estimation of blood sugar is the only way in which one may intelligently decide the question as to whether a patient is diabetic and, if so, gain an idea of the extent of his pancreatic deficiency.

The absence of sugar from the urine of a proved diabetic, unless the particular diabetic be proved to have a normal threshold, cannot be taken to indicate that treatment has restored the balance of carbohydrate metabolism.

The blood sugar must rise above the normal threshold before evidence of renal irritation or secondary nephritis can be produced.

In nephritis, owing to the damaged renal epithelium, we may find glycosuria with a normal blood sugar or, that which is more common, both glycosuria and hyperglycaemia—the latter probably due to excessive mobilization of glycogen by suprarenal over-secretion, excited by retained wastes.

THE SPECIFIC EFFECTS OF DIATHERMIA*

By GUSTAV BUCKY, M.D., NEW YORK, N. Y.

VERY frequently a physician says to his patients, "I am now going to use heat in the treatment of your case." In the term heat he includes such forms of it as radiant heat, conductive heat, and diathermia. From this it follows that he places diathermic treatment in the same category with other types of heat treatment, and that he expects to get the same effects and results from each of them.

The specific actions of diathermia being apparent, the conditions in which it is indicated will become evident and it will be understood why more marked results are obtained with this treatment than commonly follows other methods of heat application.

An electric current is sent through the body in diathermia as in faradic or galvanic treatments. In diathermia, an alternating current of moderate tension is employed differing from a faradic current in the number of alternations. These alternations in diathermia are between one and two million per second, *i. e.*, the direction of the current is reversed about one million times in that period. The current goes back and forth in the wires or in the body something as does the shuttle of a loom. One naturally thinks that a current of this sort would cause such irritation as to be unbearable, but actually this is not the case. Such a tremendous current, which would cause death if it were of any other type, is followed by no pain or irritation and causes practically no discomfort. The explanation is as follows: The atomic elements of the cells are not disturbed by the transmission of such a high frequency current, and there is no electrolysis. In other words there is no cellular change. Nernst has shown that electrical irritation depends on the electro-chemical changes in the body. Since there is no electro-chemical dissociation with diathermia, there can be no irritation, and because of its absence, there is also no stimulation of the nerves with resulting sensations. Thus we can increase the intensity of the current beyond even 3 amperes, whereas with other types of current we are able to apply only a few milliamperes. Because we are able to increase the intensity of the current we can create warmth, a phenomenon not noticed with a current of low intensity. From this it is clear that the patient will experience no other effect than that of warmth.

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*Read before the Harlem Medical Society, New York, November, 1923.

Where, then, is the heat generated? The answer to this is very simple. Wherever the current flows a part of it is converted into heat, and since the current flows through the entire body, warmth is experienced everywhere, even in the deep tissues.

This is one of the main differences between diathermia and the other forms of heat application. Iselin has shown that the temperature of the skin is never higher than 37° centigrade when the body is subjected to a hot air bath of 120° centigrade. That means that energy in the form of heat cannot penetrate the skin. If we notice any rise in body temperature after a steam bath for example, we explain it on the ground that the moist air prevents or decreases the escape of heat generated by the body itself. Increased temperature during one diathermic treatment is due to the conversion of the electric current into heat in the body, whereas increased temperature in the other forms of heat treatment is due to a storage of heat produced by the body. In the diathermic treatment, physical energy, which is converted into heat is transmitted to the body instead of conserving the heat produced by the body itself as in the other methods. Therefore, the blood instead of rushing to the surface to give off its excess heat, flows to the tissues which are warmed by the electric current in order to equalize the temperature throughout the body. From this it will be properly concluded that diathermia creates an afferent hyperæmia in the deep tissues, while the other heat applications produce a superficial efferent hyperæmia. As proof that all this is not mere theory, the parts of the body treated with radiant heat, for example, are colored deep red, whereas in diathermia the skin is normal, even the area directly in contact with the electrodes.

This also demonstrates that the effects of these two fundamentally different hyperæmias must also be widely dissimilar. From this, important conclusions the indication of proper treatment can be made depending on whether we desire an increased or a decreased flow of blood to or from a particular organ.

Since hyperæmia and secretion are interdependent it is easy to understand, that the secretion of deep seated organs with diathermia alone can be influenced. In practice this is actually the case, and an increased secretion follows a diathermia treatment. Metabolism is also increased. Knowing this, results can be regulated by employing the proper technique—an impossible consummation with the other methods of heat application.

Hyperæmia, secretion and metabolism are the deciding factors in cellular activity. No wonder, therefore that so many symptoms of disease can be dissipated by our ability to control these factors. Among these are included the relief of pain, a general sedative action and the excitation of resorption, exudation and transudation—in other words, the return to normal.

The effect on bacteria can also be explained to a large extent by the increased heat on the thermolabile bacteria. This makes it necessary to differentiate between the direct and indirect effects of diathermia on bacteria.

The energy saving effect of diathermia, as first shown by Bergonie, is of great importance. The passing of the electric current through the deep tissues is quite comparable to the addition of free energy, and can be utilized as readily as food. Furthermore, reserve materials such as fat are saved for possible future emergencies. The body derives energy from the heat producing effect of diathermia without itself doing any work just as if it were absorbing assimilated nourishment without preliminary digestion.

The practical value of all this is that diathermia does not increase the labors of the body as does the steam bath. The increased sweating and the marked changes in the circulation during a steam bath involve considerable work on the part of the body. As proof that this taxes the strength of the body, fatalities frequently occur after a steam bath as the result of cardiac insufficiency. On the other hand, patients with very weak hearts or myocarditis can stand diathermic treatment without any ill effects. This proves that neither the body nor the heart is called upon to do more work even after a general diathermic treatment, where the electric current passes through the whole body and causes a considerable rise in temperature. Diathermia should therefore displace the steam bath in the treatment of cases complicated by heart disease.

The numerous specific effects of diathermia readily explain the wide range of its indications and uses. At first glance these would appear more or less like the exaggerations of a quack to the uninitiated. But we are still putting too much faith in the theories and experiences gathered during the years of drug treatments. The experiences of drug therapy are unconsciously being transferred to the field of physical methods. However, we are still governed by the age-old medication point of view whereas the knowledge of the physical means and of our ability to use them is practically recent, dating only from the end of the last century. We are accustomed to find certain definite results following the administration of particular drugs. (A drug for raising the blood pressure always does so, and does not lower it; a stimulant will not work as a sedative, etc.) But with physical methods we do not obtain the same results in every case, and we are at a loss to explain these inconsistent results. For example, we find that in diathermia we sometimes get an increase and sometimes a decrease in secretion, probably through the regulation of the circulation. High blood pressure is sometimes lowered and low blood pressure is sometimes raised. In general we find a tendency to return to normal following a treatment. The mechanisma of these results present very interesting problems, but for the time being we must be content with the experiences of clinical applications, although the theory is being studied more and more from day to day.

It is needless for one to enumerate the indications for diathermia, as the knowledge of the specific actions of diathermia will better enable one to judge the indications. Let it be borne in mind that diathermia has a regulating effect on the circulation. The treatment of inflammations, especially when deep-seated, comes in this category. In certain acute stages of inflammation such as tuberculosis, articular rheumatism and appendicitis, diathermia is contraindicated. In others, however, as for example the acute stage of tendovaginitis, furunculosis, otitis media, etc., the results are sometimes amazing. Generally however, we must be careful in such acute inflammations, accompanied as they are by marked tissue involvment and a high degree of hyperæmia.

Chronic inflammations of any organ with practically no exception are the most fertile field for diathermia.

Other conditions such as frost-bite and arterio-sclerosis, which are also due to circulatory disturbances, and certain nervous conditions such as Raynaud's disease, fall into this class, and their treatment with diathermia often yields the most astonishing results. The treatment of pneumonia might even be placed in this group.

The relief of pain is marked in inflammations and especially so in neuritis. The effects of diathermia on lumbago, rheumatism, pain following local anaesthesia, peridental inflammation, traumatism, etc., are pronouncedly favorable. Its resorptive or absorptive effect can be noted in all effusions, as in hematoma, after-treatment of fractures and thrombosis. In mental excitation and in mental diseases diathermia exerts a sedative action. In the treatment of melancholia, for example, quite remarkable results have been obtained, thereby obviating the necessity for sedative or narcotic medication.

Secretory regulation may be observed following the employment of diathermia in nephritis, in hepatitis, in gastric neurosis, etc. Interesting results were obtained from the uses of diathermia in treating the breast of a nursing mother with an insufficient milk supply, the production of milk being markedly increased.

Its beneficial effects, probably secondary on the hostile bacteria present, have frequently been observed in the treatment of infectious arthritis, gonorrheal prostatitis and epididymitis. Its aid as a conserver of energy is apparent from the rapid recovery and the improved general condition following diathermic treatment during convalescence, especially after infectious disease.

That diathermia has a beneficial effect on metabolism is shown by the cessation of all the symptoms of nausea from anaesthesia following its uses. A marked increase in appetite and a marked improvement of the Roentgen-diseases if treated after each X-ray treatment, is noted after a diathermia treatment.

The more salient features of diathermic treatment have been merely touched upon.

CLINICAL APPLICATIONS OF THE FUNCTIONAL HEARING TESTS*

By C. STEWART NASH, M.D., ROCHESTER, N. Y.

The clinical applications of the functional hearing tests are precisely what each individual aurist makes them. If I were to classify otologists according to their attitude toward this particular phase of the work, each one of us would fall into one of three distinct groups. We should belong either to (a) the academic group, or (b) the non-academic group, or (c) a combination form of the first two.

The *academic group* includes these individuals who have the equipment, the knowledge, the time, and the desire to do good work. They are best exemplified by the full-time teacher of the medical college; the man associated with certain clinics; the man of independent income who can afford to limit his practice to just the number of patients that he can examine and treat in an ideal and "academic" way; and the young otologist whose clientele is not yet established and who has leisure thrust upon him. These men are actually giving to their patients what all our patients believe that *we* are giving them.

The *non-academic group* includes those men who have the equipment; who may or may not have the knowledge, but probably do not; who may or may not have the time; and who have no special desire to do good work in this or any other field of otology. Unfortunately, rather a large percentage of otologists can be found in this group. Many of these men are so busy that they have time only to treat the deafness and no time to make a diagnosis.

The *combination form* is composed of otologists who have the equipment, the knowledge, and the desire to make good functional hearing tests, but who are seriously cramped for time. They want to do good work, but their practice has increased beyond the point at which the individual patient can receive in full measure all that the aurist has to give. This doctor has an office full of patients, among whom are to be found prospective tonsillectomies, submucous resections, mastoidectomies, and so forth; and tucked back in the corner is a man whose deafness has been increasing for some time and who consequently has come to this particular otologist on the recommendation of his family physician who lives in another town many miles away.

When the patient arrives in the treatment room and states his complaint to the doctor, the procedure is as follows: His ears, nose and throat are examined by inspection, his eustachian tubes are inflated, and since his drums are slightly retracted, and there is no history of deafness in the family, he is told that for him to have his best hearing the tubes must be kept open and that a series of treatments are necessary to accomplish this end. The doctor makes a mental note to check this case with functional hearing tests as soon as he gets time. The patient takes the treatments and when the tubes are open the hearing improves and the doctor gets the credit for being a good "ear man." On another occasion, when there are fewer in the office, another patient comes in complaining of deafness. The examination is conducted as before, but since the physician is not so pressed for time a fuller effort is made to determine the cause and the extent of the disability. In addition, then, he tests with a whisper and spoken voice at a distance of four or five feet, multiplies a numerator and denominator by a convenient factor, and expresses the patient's disability in terms of 20/20. He also tests the bone conduction and, compares it with the air conduction, and the examination is complete. His conscience pricked him in the first case and in the second he salved it by these two manoeuvers. As I have said before, this man knows how to do academic and scientific work and he wishes to do it, but he is seriously pressed for time.

So far I have made a hard and fast classification of all otologists according to their attitude toward the clinical applications of the functional hearing tests. You may quite justly ask me how I arrived at these conclusions and by what right these assertions are made. In the past four years it has been my opportunity to examine in an academic way some two thousand to twenty-two hundred cases of deafness or questionable deafnesss outside of my own private practice. Many were government compensation cases, upon which percentages of disability had to be made and from which malingerers had to be excluded; others included medico-legal and other forms of adjustment cases. On all of these, my work was either actually checked, liable to be checked, or else I was checking some one else's work. This experience, you see, gave me a special opportunity to determine what other men were doing in this work and also perhaps made me a little keener myself.

It might be interesting to state that all of this work was done before the audiometer became part of the office routine. The tests consisted of a determination of the ability to hear whispered and spoken voice at no less than twenty feet. The Schwabach, the Rinne, the Weber, and the range of hearing were tested at 64, 128, 256, 2,048, and somewhere around eight to ten thousand D. B. per second with the Galton whistle. The percentages of disability were arrived at, by what we call a utility method, which you can see might be somewhat elastic so far as the judgment of one's peers is concerned.

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In all of this experience I have never yet been confronted by an otologist of the academic type. Whether the medico-legal, compensation, and industrial world shun our more academic brothers is a question I have not yet answered.

The non-academic type in this field of endeavor, however, are plentiful, and when confronted by a condition in which they are obviously in the wrong, one of two reactions has always manifested itself. First, they may laugh it off as a good joke and say, "We really didn't examine the patient very well." Or else they become abusive and swear before a jury or commission that what we consider as an axiomatic truth, in this particular case is probably untrue. I was called in to see a case, the facts of which are briefly this: A woman aged 65 took down the telephone receiver and was met by a terrific buzz in her ear. She immediately became nauseated, dizzy, faint, and deaf. After two days the condition had not subsided, and her general doctor notified the telephone company, who dispatched an aurist to investigate the matter. He inspected her ears, nose and throat, noted a slight retraction of both drums and reported to the company that she had a chronic catarrhal deafness, implying thereby of course that the blast in the ear had nothing to do with the deafness. On my examination she withstood all kinds of malingering tests and was very consistent in demonstrating that the nerve function in the affected ear was definitely impaired. On successive examinations the nerve function gradually came back until what was probably her normal hearing was restored. This took place before any settlement or adjustment was made with the company. The company otologist is a friend of mine; he laughed and said that he had not made any functional tests in her case. The company paid the bills. Another case was that of a woman aged 40 who had been complaining of deafness over a period of about a year. At weekly and monthly intervals she had had her eustachian tubes inflated, but her deafness was unimproved. It became my duty to examine this patient. On examination, both canals were found to be filled with impacted wax which had *not* collected there within a few weeks. On removal of the wax the hearing was decidedly improved, and after adequate time for the canal and drum to resume their normal character she heard so well that she considered further treatment unnecessary. The doctor insisted that her increased bone conduction proved middle-ear involvement.

The third classification or combination form of individual does not like to become entangled in any case where his functional-hearing-test work is likely to be checked. He does not represent the innocence of the first form of the non-academic, nor the narrow stubbornness of the second. He is wary and does his work well enough not to make gross errors, but nevertheless he does to a certain extent fail to give his patients what they really pay for and what they may expect from a man of his reputation and ability. A young lady went from the city of Rochester to an otologist of high rank in his profession and particularly popular with the laity. He examined this woman by inspection, inflated her eustachian tubes, inserted some of his "magic fluid," charged her a respectable fee and advised her to return for further treatment. On the second treatment he did functional hearing tests and assured the patient that her hearing was greatly improved. She thanked him very much and said that she did not know how he could tell anything about it since he had never tested her before. Now he did better than many of us do, because he did examine her on the second visit, but just the same he had not treated that patient in a measure consistent with his ability and reputation, and consequently to just that extent had in reality defrauded her.

From what has been said so far, you are beginning to think this whole matter of functional tests is either unsatisfactory or impracticable. As a matter of fact this is probably true. If you do functional hearing tests on a patient, and that particular work is to be checked, and you know it, you will probably do academic work, but if an unsuspecting patient has absolute confidence in you, and you are busy, you will probably treat him and put off the scientific examination from one time to another indefinitely.

At present I am doing functional hearing tests on every case of deafness that I examine or treat, and am repeating these tests at intervals regardless of the fact that the element of time is most distressing. To do otherwise is unfair to the patient and incidentally jeopardizes the security of my own judgment.

Briefly and in conclusion, the functional hearing tests are used in my office for the following reasons:

1. To differentiate and classify deafness.
2. To record the condition of an individual case throughout duration of deafness.
3. To determine percentages of disability.
4. To adjust medico-legal and compensation cases.
5. To assist in the localization of intra-cranial lesions.

SOME MISCONCEPTIONS IN THE DIAGNOSIS OF MOTOR ANOMALIES*

By ALEXANDER DUANE, M.D., NEW YORK, N. Y.

IN any branch of diagnosis it is important that we should start with a clear conception of the nature of the conditions that we are investigating. Otherwise the significance of the tests that we supply for the detection of the conditions escapes us.

This statement is particularly true with regard to motor anomalies of the eye. Here, I believe, two fundamental misconceptions have prevailed among many, and have militated against accurate diagnosis and effective treatment.

The first error consists in regarding a motor anomaly simply as a departure from orthophoria without inquiring into the conditions that produce this departure. In other words, many observers simply record the fact that the patient shows this or that amount of esophoria, exophoria, or hyperphoria in distant vision, without determining how these relations change at near points and how they change in different directions of the gaze, and also without determining the ability of the eyes to perform parallel movements in the six principal directions, or to converge or diverge. The importance of determining all these points if we wish to arrive at anything like a correct diagnosis has been repeatedly signalized. I myself have for thirty years been urging the fundamental importance of regarding and handling motor anomalies in this way. Yet repeatedly I receive letters asking for a diagnosis and suggestions for treatment when the only data given are measurements, made repeatedly and with great care, of some exophoria or hyperphoria present. Such data, however accurate, are altogether insufficient for a proper understanding of the nature of the case or for the application of suitable treatment. This should be obvious when we consider that the eyes are in constant action, performing all sorts of combinations of conjugate, convergent, and divergent movements; that, in general, some interference with these movements is the thing that causes the motor anomaly and the patient's symptoms; and that the deviation that we find in the primary position is but one result, and that perhaps the least important, of the condition we are seeking to correct. The deviation found is but a symptom, and to treat it as a substantive affection without determining the conditions that underlie it would seem as strange a thing as for a physician these days to treat a case of dropsy simply as dropsy without seeking for its cause.

In many of these reported cases it is not even stated whether the deviation found is regularly or sometimes a squint or whether it is at all times a heterophoria. Yet this distinction is important —more important, indeed, than the actual measure of the deviation itself—since it shows how readily the eyes can be made to submit to fusion control. On this very point often hinges the question of treatment and especially of operation.

The second error seems to me to lie in the conceptions that some hold regarding the essential nature of orthophoria, heterophoria, and squint. To understand this let us consider what these conditions show as to the actual state of the eyes.

The great majority of persons when viewing an object with both eyes exhibit what we call binocular fixation and binocular single vision, i.e., both eyes are directed sharply at the object and both simultaneously see it. In a few cases when their attention is directed at an object, and they are looking at it with both eyes, one eye obviously deviates. We thus divide mankind into two classes, squinters and non-squinters, the former being evidently abnormal. But some of the non-squinters prove on examination to be abnormal too, for whenever we interpose a sufficient obstacle to clear binocular vision, we find that one eye deviates, to return to the fixing position when the obstacle is removed. These cases we group under the head of heterophoria. Furthermore, if we examine these cases in different ways and at different times, we find that the amount and persistency of the deviation vary with the means employed to elicit it and with the time during which the conditions of normal binocular vision are suspended. We find, in fact, that, according as we change the conditions of the examination, a deviation may be made vibrate between an orthophoria and a heterophoria of varying amount or between a heterophoria and a squint.

It is often argued that a person who exhibits such variations has a muscular error equal to at least the largest amount that he admits by the tests and that when he shows less he is concealing part of the error by effort. He is thus compared to a hyperope who at times reveals part, at other times none of his refractive error, and who reveals all of it only when put under atropine. From this viewpoint true orthophoria would correspond to emetropia, heterophoria to a latent hyperopia, and a squint to an absolute hyperopia.

This analogy, with its implications as regards the significance of the tests, is based, it seems to me, on a fundamental misconception. The hyperopia in the one case represents an absolute static condition, i.e., the refractive state which appertains to the eye when making no accommodative effort whatever and which is conditioned solely on the shape and constitution of the refractive surfaces. This state is thus a perfectly determinate and stable affair. It is proper then to say that the accommodative effort masks or conceals the true refractive condition. But the muscular state of the eye (orthophoria or heterophoria) is quite a different thing. When without imposing any constraint on the eyes we look straight ahead at a distant object, each eye is held in place not by mechanical, unchanging conditions, but by the simultaneous contraction of all six of its muscles, each acting as a counterpoise to its opponent. These muscles in turn are made to contract to just the right extent by reflex stimuli set up by visual and muscular impulses acting through the coordinating nerve centres. The position of the eyes thus represents the balance of opposing varying forces, which are coordinated and regulated by the demands of fixation. These demands themselves are sometimes more, sometimes less imperious, so that this controlling power necessarily varies from time to time. With all this interplay of compelling forces and muscular tensions it is no wonder that in many cases the findings as to the position of the eyes vary. Such a variation will be particularly likely to occur if we introduce factors that tend in varying degree to break up fusion control, and this we do in many of our tests (screen, phorometer, Madox rod). Nor when such variation occurs are we in position to say which finding represents the absolute state of the muscle balance. For, indeed, there is no such absolute state. When a man one day rejects a glass and the next day accepts a +1D, we do know that his static refraction is a hyperopia of at least 1D and we also know that by instilling atropine we can arrive at a true measure of what his refractive state is. But if a person shows orthophoria one day and on another day when his efforts are more relaxed an exophoria of 6▽, we cannot by any means necessarily infer that the true state of his muscle balance is represented by a divergence of the visual axes of 6▽ or over. All that we can say is that he has a tendency to divergence which at times when the fusion control is good is reduced to nothing, at other times when the fusion control is less strong amounts to at least 6▽. But note that when he does show the 6 ▽ of deviation this is generally due to the introduction of some non-natural and unusual condition, e.g., the application of some test that reduces the fusion control. If such tests are pushed further, so that fusion control is largely lost, then the moderate exophoria in such a case is turned into a large and temporarily incorrigible squint. We see instances of this when the patient has been subjected to prolonged monocular occlusion or has in other ways shunted off one eye, e.g., by prolonged use of the monocular microscope. And if the suspension of fusion control were pushed to its extreme, i.e., to the point of absolute and permanent abolition, then every person, even though originally orthophoric, would show not simply a deviation of the eyes but a complete dissociation. Such a condition could not by any possibility be regarded as representing the real state of the eye balance, nor could we say that any of the intermediate conditions caused by partial suspension of the fusion control represented it precisely either.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 30, 1926.

One further consideration. When we abolish the accommodation with atropine, we have, as has been said, a perfectly fixed and determinate condition to deal with, namely, the refractive state conditioned by two unvarying factors—the curvature of the media and their optical density. But if we should succeed in absolutely abolishing fusion control, we would have no like stable condition to measure, i.e., no mechanically fixed position of the eyes, but an anarchy of opposing and continually varying, entirely unregulated muscular tensions, causing the eyes to wander aimlessly and more or less independently first in this direction, then in that.

A motor anomaly is thus fundamentally different in character from an error of refraction. A refractive error, being due to structural defects is unchangeable except as the result of comparatively slow alterations taking place in the shape of the eye itself. It is thus a substantive, unchanging entity. Its amount is definite and determinable, being represented by the highest measurements obtained on the use of the most thorough-going and prolonged tests (atropine). A motor anomaly, being due to the balancing of forces, is something essentially variable in its nature. It may remain approximately constant, provided the conditions under which the balancing forces are applied remain the same; but it changes as soon as these conditions are radically altered. It has no definite assignable amount, and the maximum values of it obtained by the most thorough-going methods of examination (prolonged occlusion) cannot be regarded as its true measurement but simply indicate the greater or less stability of the controlling forces and the tendencies that the eyes develop when these controlling forces are relaxed.

The most we can do is to determine whether the controls that keep the eyes from deviating are performed easily, habitually, and without nervous wear and tear, or, on the other hand, whether the eyes frequently or usually escape from them and hence deviate. When they do deviate we can measure the amount of the deviation, yet even then cannot say that in so doing we measure the motor anomaly in anything like the sense that in determining the refraction we measure a refractive error.

All this has a direct bearing on the significance of the tests used in measuring motor anomalies. As above stated, many of these tests act by breaking up fusion control, and some do this in a more thorough-going way than others and sometimes therefore afford different findings. These differences are of considerable clinical significance. We may say that a person whose fusion control is readily broken up by even a momentary application of the screen test has an unstable, and one in whom the control is more stoutly maintained so that he has orthophoria by all tests has a stable equilibrium. In some the equilibrium is so unstable that they readily drift from a heterophoria into a squint. Such indications as these are of much more significance than the actual amount of deviation elicited. So far as symptoms go, those who have prompt and easy fusion control have much less disturbances than those with much less manifest deviation in whom the control is difficult or uncertain.

How far we should go in releasing the eyes from fusion control when making our tests is a matter of controversy. Marlow and others believe that we should in very many instances use occlusion of one eye for a week or so. The idea underlying this practice seems to be that such occlusion freeing the eyes from fusion control will reveal their true motor condition, in much the same way that cycloplegia under atropine reveals the true refractive state. I have already referred to what seems to me the fallacy involved in this analogy.* When we thus employ occlusion for a week we do not reach the limit of release from fusion control as we do reach the limit of accommodative relaxation when we use atropine in a thorough-going way. The ultimate limit would be reached only by occlusion for many months, which if it had its full effect should produce dissociation of movements or a return to the early infantile state, in which it is said the eyes wander more or less aimlessly without reference to each other. This certainly would not represent the natural condition of the eyes, nor do I believe that the half-way emancipation produced by a week's occlusion represents it either. What such occlusion does effect and what may make it serve as a valuable indication in some cases is that it demonstrates how readily the eyes tend to escape from fusion control, and, when they escape, what special tendencies to deviation they exhibit. In this way the test may furnish a guide to operation. But even here caution is necessary. Prolonged occlusion is pretty sure to develop a convergence insufficiency which can be only regarded as artificial and which produces as exophoria marked for near and sometimes fairly considerable for distance as well. Such an insufficiency will disappear when fusion reasserts its control and is by no means necessarily an indication for operation.

On the other hand, such an artificial insufficiency may take some time to disappear and produce troublesome symptoms in the meantime.

For this reason I think the occlusion test for determining deviations should be used with circumspection and only in selected cases, and that the findings from it should be regarded only as a general guide. It would seem to me of much more value in vertical than in lateral deviations. In the former, however, with the exact methods of analysis that we have—determination of the extent of the excursioins of each eye in binocular movement and the determination of the deviation and diplopia in different directions of the gaze—it would not seem often required.

For a like reason I think that the practice at one time much employed of "developing" the full amount of a deviation by prisms is in general unsound. The idea underlying this procedure was that if a patient showed a moderate error—particularly a hyperphoria—we should correct this with a prism, and after he has worn this awhile, should test him again to ascertain if more error had developed. If it had, the prismatic correction was progressively increased until no more error was manifest. In some cases this procedure, which I tried repeatedly, seemed to me helpful; but there is always the risk that the patient will develop a condition quite artificial, particularly if he has good fusion power. I think in no case should this method be tried for a lateral deviation and but rarely for a vertical. This statement does not mean that I disbelieve in using a trial prism to ascertain if it relieves symptoms. The use of such a prism may give valuable indications for the subsequent treatment. But this is quite different from using a prism to "develop" a supposititious latent muscular error—a thing the very existence of which is problematical.

As opposed to the methods above considered, I believe the most valuable tests of imbalance are those which produce only a moderate relaxation of fusion control and which thus indicate not only the tendencies of the eyes but also the relative ease with which the power that regulates and restrains these tendencies can be put out of gear. Thus a deviation which is made manifest at once by putting on a red glass is of more significance and is more directly in need of relief than one which shows no diplopia by this means and is rendered apparent only by the screen test or Maddox rod. Again, a deviation shown by the screen, which is of large amount but is instantly and easily redressed when the screen is removed, is of less moment than one of much smaller amount which is overcome with difficulty, or at times, not at all.

In any case, the tests for imbalance, however made, must, as already said, be supplemented by tests which show how well the eyes are possessed of the means that enable them to effect fusion in all directions and ranges of the gaze. I mean that they must be supplemented by tests which indicate the ability of the eyes to keep pace with each other in each of the six primary directions of the gaze and the tests for convergent and divergent movement. These tests, indeed, are more important than the tests for imbalance per se. For the diagnosis and for the determination of the means that should be used to remedy the motor disturbances they are in fact essential.

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* Mr. Justice to Dr. Martin: I should say that he does not maintain that this analogy holds completely.

THE VALUE AND DANGER OF IODINE IN THYROID DISEASE*

By MAYNARD E. HOLMES, M.D., SYRACUSE, N. Y.

IODINE has always been used in the treatment of goiter. During the past few years, however, its employment has markedly increased due to numerous reports in the literature dealing with the value of iodine in certain definite types of thyroid disease. It is only natural perhaps that the enthusiasm stimulated by these reports should lead to the widespread giving of iodine not only in the limited group recommended but in all types of thyroid disease where in one case it relieves and in another case does real harm. This confusion is in part due to lack of appreciation of the fact that iodine is only of value in a limited group of thyroid abnormalities and the neglect of correctly diagnosing the type of thyroid disease present.

Formerly the diagnosis of hyperthyroidism was most uncertain and because of this it was often confused with various functional neurotic states where the thyroid was often needlessly removed with excellent mortality statistics. Likewise numerous drugs and modes of treatment were advocated as cures for toxic goiter all of which are now known to be worthless. The introduction of basal metabolism studies has changed all this and has placed the whole subject of thyroid disease on a definite scientific basis.

Thyroid disease is divided into two great groups the non toxic which are characterized by a normal or lowered basal metabolism and the toxic which are characterized by an increased basal metabolism. To the non toxic group belong the simple colloid and the adenomatous goiter, to the toxic group belong the adenomatous goiter with hyperthyroidism and the exophthalmic goiter. Before iodine is given in any goiter a definite diagnosis should be made; is it toxic or non toxic, is it colloid, adenomatous or exophthalmic? Until this is done there is danger and confusion from the use of iodine. It is my purpose here to outline briefly according to our present knowledge in what types of goiter iodine is of value and in what types it should be avoided.

Goiter Prophylaxis

Goiter is only present in certain parts of the world where there is a deficiency of iodine in the drinking water. In this country the goiter belt comprises the great lake States and the northern and central western States. Goiter is rare in New England and the southern States. In this belt are found according to McClendon [1] most of our toxic and non toxic goiters. In this area Marine and Kimball [2] have clearly shown that small amounts of iodine properly given to children will prevent the development of adolescent or simple goiter. Several methods of giving the drug have been advocated, in table salt, drinking water and various doses by mouth. Of these the one with the fewest drawbacks is that of giving 10 mg. of iodine per week throughout the school year from age 10 to 17. Convenient palatable tablets containing 10 mg. of iodine are made for this purpose. Kimball[4] states that one of the most important phases of the whole goiter problem is the prevention of congenital goiter from which most adenomatous goiters arise. He advises that the giving of 10 mg. of iodine weekly during pregnancy and lactation will prevent the development of goiter in the mother and insure a normal thyroid in the child. Goiter prophylaxis is indicated only in goitrous areas. Cohen[5] in a recent survey found that this is unnecessary in New York City.

Simple Colloid Goiter

The adolescent or simple colloid goiter usually appears between the ages of 10 and 15, six times more often in girls. This type is non toxic and has a normal basal metabolism. Except in rare instances of extreme enlargement it is not a surgical condition. Often in the past however, simple goiter was erroneously diagnosed as toxic because of the accidental presence of tremor, tachycardia, nervousness, fatigue or emotional instability, all of which may be of functional neurotic origin. This error is now inexcusable because a basal metabolic test will quickly clear up the diagnosis. If the basal metabolic rate is found to be normal hyperthyroidism is not present. Simple goiter under age 20 can be cured or markedly relieved in the majority of instances with minute doses of iodine properly given[3]. Kimball[6] advises 10 mg. daily during alternate months. The maximum improvement may not occur for several months and at this point the dose should be decreased to 10 mg. weekly. The painting of the goiter with iodine or the rubbing into the gland of iodine ointment should be abandoned for the accurate oral administration of the drug. Marine[3] has also suggested the use of small doses of thyroid extract in conjunction with iodine for the treatment of this group, and I have found it very helpful in refractory cases. Iodine should not be given where goiter is present unless the patient is kept under the close observation of a physician because occasionally a case may be rendered toxic. I have seen two such cases in school children who developed symptoms of toxicity after taking small doses of iodine over a period of from 3 to 6 months for an enlarged thyroid. The basal metabolic rate was +38% in one and +69% in the other, exophthalmos was present in one instance. Surgery was necessary in both and the pathological report on the gland was hyperplasia in each case. Although this occurence is rare under age 20 it illustrates the necessity of direct supervision by a physician of all goiter cases taking iodine. Over age 20 iodine should be given for simple goiter with even greater care because of the ever present possibility of an adenoma being present which may be rendered toxic by iodine. Coller[7] has shown that after age 25 most simple goiters contain some adenomatous tissue the ratio of which to colloid increases so that after age 30 the adenomatous element dominates the picture. In other words the simple goiter of age 25 becomes the adenomatous goiter of age 45. It is for this reason that iodine treatment should not be given for simple goiter over age 30.

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* From the Department of Medicine, Syracuse University.

ADENOMATOUS GOITER

The adenomatous or nodular goiter comprises nearly all the non toxic goiters occurring over age 30. This group show a normal basal metabolic rate. Here iodine is contra-indicated because it may change the picture to one of adenomatous goiter with hyperthyroidism. This danger of iodine in the presence of an adenomatous thyroid has long been known but has seemingly been forgotten in the recent enthusiasm for the drug. It is probably here that the indiscriminate use of iodine has done the most harm and where iodized table salt and drinking water have their danger. Because of the fact that a high percentage of this group become toxic in middle life the surgical removal should be urged of all adenomatous goiters over age 30.

EXOPHTHALMIC GOITER

In exophthalmic goiter the use of iodine was formerly thought to be extremely dangerous but since introduced recently by Plummer,[8] its use has become generally accepted as preoperative preparation in this group. It is certainly remarkable to see these desperate risk cases change in 10 days to mildly toxic ones at which time subtotal thyroidectomy may be done at little or no risk. Iodine preparation has now rendered the many stage operations obsolete and makes surgery possible in many cases that formerly died before an operation could be attempted. At present in this group pole ligation has been reduced by this procedure to less than 10% while upward to 90% of the cases are operated in one stage. Cattell [9] found that after a course of iodine the hyperplastic gland shows an involution change, the high columnar epithelium changes to cuboidal and then to flat also there is an increased deposition of colloid making the gland very friable. In exophthalmic goiter iodine brings about a remission in from 8 to 21 days which is evidenced by marked clinical improvement and a lowering of the basal metabolic rate to normal or near normal. At this point if the drug is discontinued Starr[10] has shown the metabolic rate will quickly rise again and even if the drug is continued the rate will amount to its former level in a few weeks. Hence it becomes clear why iodine should not be used as medical treatment for exophthalmic goiter. It is in this group that iodine is at present being used most unwisely. It seems to be general practice where ever hyperthyroidism is suspected to prescribe iodine without any thought of its action. A patient diagnosed as toxic without a metabolism test is given iodine for a time and then sent to the surgeon. A metabolic study now reveals a normal rate and the question arises is this due to iodine or was toxicity present in the beginning. As there is generally great doubt the iodine must be withdrawn for some weeks and if the rate does not rise the diagnosis was wrong. All this confusion could be avoided by making the diagnosis certain with a metabolism test before giving iodine. Because the first remission is always the most complete the drug should never be given until consent for operation has been obtained and the patient confined to a hospital. The surgeon should always see the case before giving iodine otherwise he will have no conception of the original state of the patient. The average dosage is 15 to 30m of Lugol's solution daily depending on the severity of the case as indicated by the basal metabolic rate. Metabolism estimations are made at frequent intervals until the rate is normal or ceases to fall when this optimal time is reached generally in from 8 to 21 days subtotal thyroidectomy may be done in one stage with little risk. Unless this procedure is carried out it will be very easy to miss the point at which the metabolism is lowest and the best time for operation will be lost. In the high initial rate cases and where the rate cannot be lowered to +35% the removal may be done in two stages. To avoid a crisis the drug must be given on the day of operation by mouth or rectum. If the operative reaction is marked the daily dose should be doubled and if a crisis develops 60 to 100m, or more of Lugol's solution must be given. The preoperative dose should be continued for about 10 days after operation. A small percentage less than 10 of this group fail to respond to iodine and in these cases the former methods of stage surgery must be resorted to. This modern method of managing exophthalmic goiter is of great economic importance because it shortens the patient's period of disability by several weeks.

ADENOMATOUS GOITER WITH HYPERTHYROIDISM

Adenomatous goiter with hyperthyroidism is the nodular goiter of many years standing which in middle life takes on the symptoms of hyperthyroidism with an elevated basal metabolism. This group tend to marked cardiovascular damage and because of this many become bad operative risks before the correct diagnosis is made. These cases are often treated for cardiac disease and hypertension until a metabolic study reveals the underlying primary condition. Preoperative iodine preparation in this group is generally not advocated, however. I have used it as in the preceding group and have obtained somewhat similar results. The rate declines 15 to 30 points but frequently does not reach normal. This action may be due to the presence of some hyperplasia about the adenomata in other words a mixed type of hyperthyroidism exists. Mason[11] and Graham [12] have reported similar observations. The diffuse adenomatosis type seems to be more responsive to iodine than the true adenoma. Iodine is contra-indicated in this group as medical treatment. Surgery is the only treatment for toxic adenoma and where the diagnosis is made early the risk is slight and results are excellent.

IODINE HYPERTHYROIDISM

Iodine or induced hyperthyroidism is a term given to that type of thyroid toxicity which is induced by iodine. It is this condition which in the past has made iodine a much feared drug in toxic goiter. Jackson[13], Kimball[6] and Hartock[14] have recently called attention to the alarming increase in this condition during the past 2 years due apparently to the increasing use of iodine in goiter particularly in the form of iodized table salt. The symptom complex may be that of either adenomatous or exophthalmic hyperthyroidism; most of the cases I have seen have resembled the latter type. The pathological examination reveals generally a gland of the adenomatous type but in some of my cases only hyperplasia was found while in others the picture was that of adenomatosis. If an early diagnosis is made and the drug withdrawn the toxicity may subside but in most instances surgery must be resorted to.

CONCLUSIONS

1. Where goiter is present iodine should be given in minute doses, prolonged courses of the drug should be discouraged, it should always be administered with caution and always under the direct supervision of a physician.

2. Iodine as medical treatment is contra-indicated in adenomatous goiter and in any goiter over age 30.

3. Iodine will not cure exophthalmic goiter or adenomatous goiter with hyperthyroidism hence should not be used as medical treatment for either.

4. In exophthalmic goiter iodine should not be given until a basal metabolism test has made the diagnosis certain and the consent for operation has been obtained.

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HYSTEROPLASTY FOR THE CONSERVATION OF MENSTRUATION—PRELIMINARY REPORT*

By S. DI PALMA, M.D., F.A.C.S., NEW YORK, N. Y.

THE writer, in view of sad sequelae from supracervical hysterectomies performed for uterine fibroids on patients under 35 years of age, decided to experiment on a technique which would conserve the menstrual function.

It is a known fact that if the body of the uterus is amputated at the cervix, although the ovaries are retained, menstruation ceases, as the mucosa of the cervix takes no part in this process. It is also definitely known that the ovaries, in a comparatively short time, become inert in regard to internal secretion, and in a large number of cases while an artificial menopause may be delayed, nevertheless it occurs.

In a certain number of cases a high supracervical hysterectomy, as advocated by Novak, may be and should be performed. However, my idea was to devise a procedure in myoma uteri by which one could conserve the menstrual function practically in all cases in which supracervical hysterectomies are performed during the child-bearing period when one or both ovaries are preserved.

In the cases referred in the beginning of this report, although the ovaries were conserved, menopausal symptoms developed 2 to 3 months after the operation. These were manifested by hot flushes, palpitation, dizzy feelings, nervous irritability and a tendency to mental depression. The neuro-psychic symptoms were most pathetic. Treatments have been of no avail. One patient, five years after the operation, continues to have periods of depression manifested by crying spells, lack of appetite, hyperasthesia, etc. She is very intelligent, realizes her condition, as she expresses it, "I combat these feelings as much as I can, but they are stronger than my will." Whenever she gets in such a depressed state she avoids company, plainly showing that they are beyond her control.

If, in these women, the menstrual function had been preserved, vaginal bleeding recurring as before, the menopause would not have followed, and years of their lives would not have been made miserable.

In order to successfully retain menstrual function, it is necessary to preserve the blood supply of at least one ovary and a portion of the endometrium. It is also essential to leave in the uterine stump as much mucosa as possible; the duration and quantity of the subsequent menstruation, I find, depends upon the amount of the uterine mucosa retained.

The following is a description of the technique adopted by the writer. It may have to be modified according to the discretion of the operator.

After the abdomen is opened and the uterus is discovered to be the seat of multiple fibromyomata in which enucleation is not possible or not feasible, instead of the usual supracervical hysterectomy, I proceed as follows: Two clamps are placed on each side of the uterus including the round ligaments, the tubes, the utero-ovarian ligament and the broad ligament. The structures are cut between the two sets of clamps and the broad ligament is split. The anterior leaf is cut downward on each side of the uterus to about the junction of the lower and middle thirds of the uterine mass, and the uterine arteries are ligated or clamped at this site. The posterior leaf of the broad ligament is then incised in a downward and inward direction to the point where the uterine artery has been clamped. At this level the mass is cut across to the endometrium. (Fig. 1.)

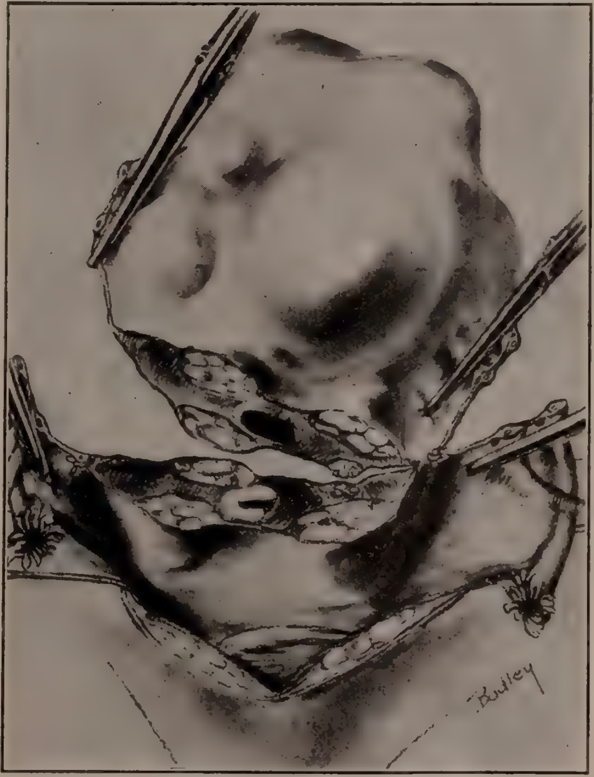

Fig. 1—The Amputation

As much as possible of the mucosa is dissected out above the line of incision. If fibroid growths are encountered in cutting the uterus to its cavity, they are either enucleated, if possible, or sectioned across.

The amputation of the uterus is continued so that when it is finished we have: About the lower third of the uterine body with its mucosa intact,

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* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 30, 1926.

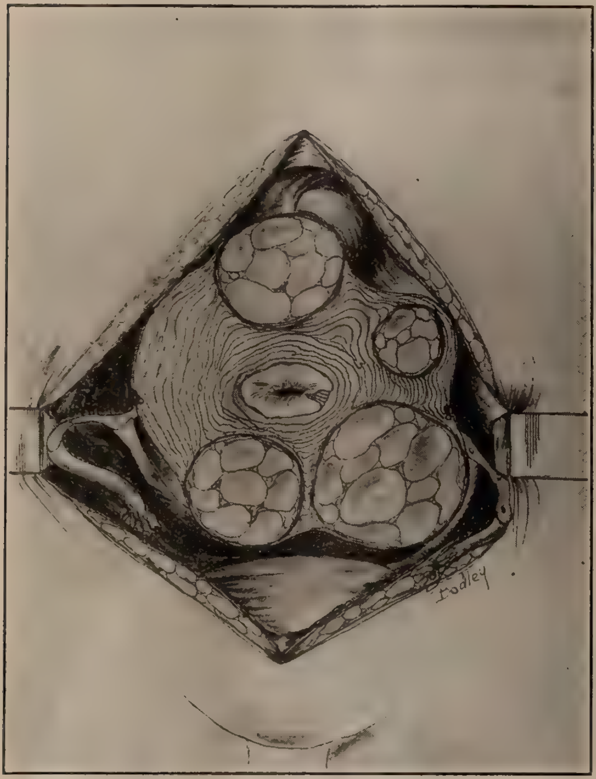

Fig. 2—Top of the stump of the uterus

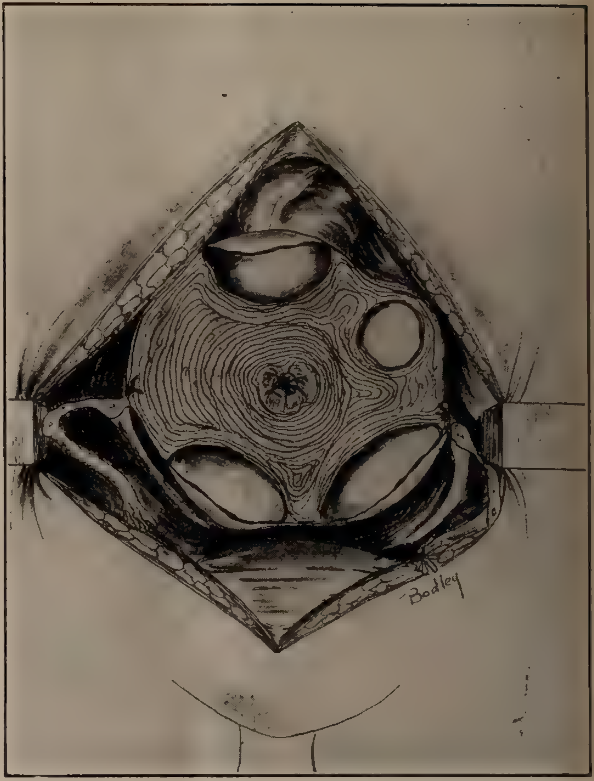

Fig. 3—Enucleating the fibroids in the stump

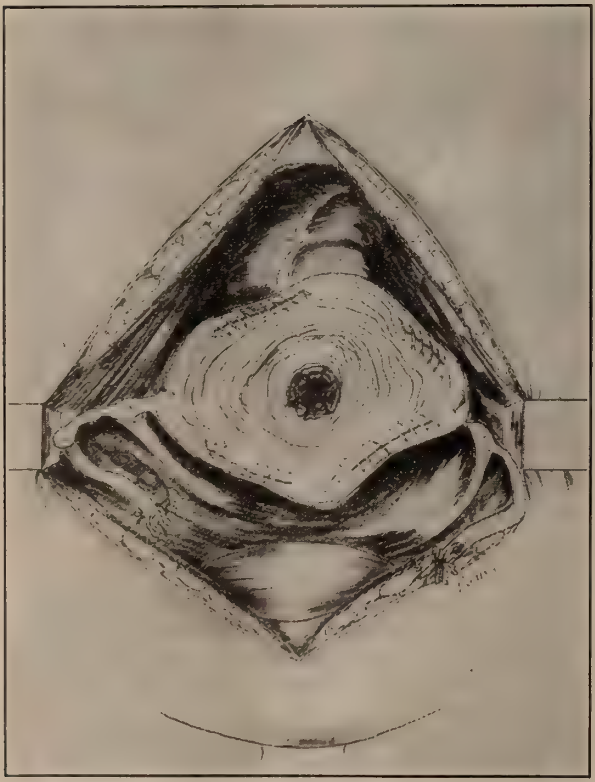

Fig. 4—Obliterating the seats of the fibroids

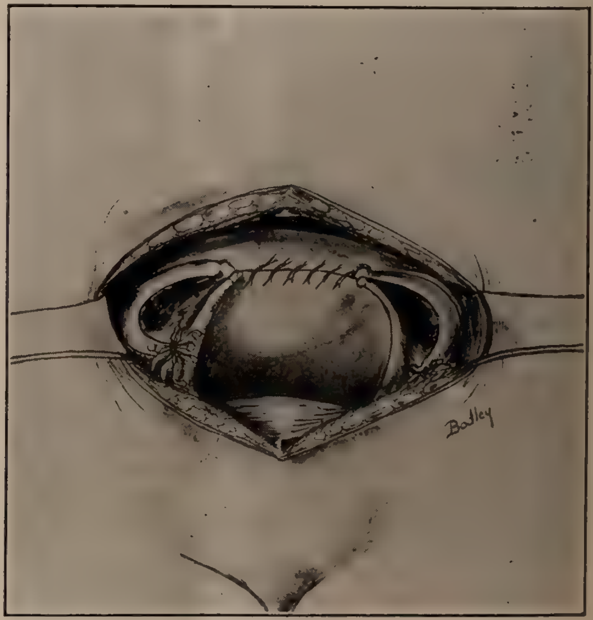

Fig. 5—Closing the broad ligament over the stump

besides a certain amount of mucosa originally belonging to the amputated upper two-thirds, one, or possibly several sectioned fibroids in the musculature of the lower uterine third. (Fig. 2.) On account of the several branches of the uterine arteries which traverse the uterine musculature below its ligation, some bleeding is apt to occur. This is controlled in the usual manner. The sectioned fibroids are then enucleated. (Fig. 3). Digital exploration is made to ascertain whether more growths are present. Dead spaces are obliterated. (Fig. 4). The loose mucosa is invaginated in the remaining uterine cavity. The uterine aperture is closed by a purse string suture, and the operation is completed as in the usual supracervical hysterectomy, the broad ligament stump being sutured over the retained uterine segment. (Fig. 5.)

The possible objections to this operation are, 1st, the length of time, 2nd, difficulty of technique, 3rd, possibility of leaving in small unpalpable fibroids.

It is true that this technique takes about double the time of the usual hysterectomy. However, in most instances, the patient is well able to stand it being in the prime of life. It is needless to say that this operation should not be performed by any one but an experienced operator. There is a possibility of leaving in small unpalpable fibroids, but what of it. A later myomectomy is always in order in case they grow to give symptoms.

The writer has performed 8 of these operations in the Gynecological Department of the Harlem Hospital, Dr. Cherry's Service. The patients had large uteri filled with fibroids varying in size from a small pea to about 10 x 12 cm., the average uterine body being about 16 x 20 cm. In these cases a high supracervical hysterectomy has been deemed unfeasible to date and a myomectomy out of the question. (Fig. 6 and 7).

The following 3 cases are brief reports in which the above described operation was performed.

G. A., Age 40 years, admitted to Dr. Cherry's Service, Harlem Hospital, Apr. 8, 1925.

Menstrual History: started at 13 years, every 30 days, for 3 days. Did not miss any periods. She has had pre and co dysmenorrhea.

CC: Enlargement of abdomen, pain in lower abdomen, prolonged menstruation, 4-6 days.

Diagnosis:—Multiple Uterine Fibroids.

Operation:—Hysteroplasty as described, May 1st, 1925. The uterus in this case was transformed into an irregular mass 15 x 18 cm. On the right side of the uterus was a pedunculated calcified mass. One tube and ovary removed. In performing the operation three small fibroids were bisected and were enucleated from the lower uterine segment.

Discharged: May 17th, 1925, after an uneventful recovery.

Follow-up Notes: June 6th, 1925, patient reported that she had menstruated during the previous week, lasting 3 days. Pelvic examination, negative.

July 11th, 1925, patient reported last period June 27th, for 3 days, no clots, no pains. Abdominal wound well healed. Pelvic examination, negative.

August 12th, menstruation on July 28th, for 3 days.

The Social Service Worker called at the patient's house in September and was informed that the patient had gone to Pittsburg and had left no address.

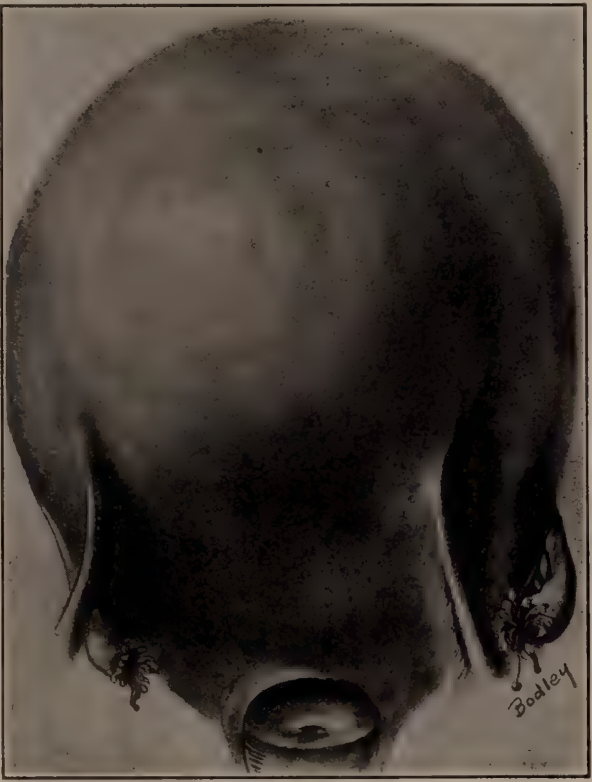

Fig. 6—Type of myoma in which a supracervical hysteroctomy is almost invariably performed.

Case No. 2—O. B., Age 36, Admitted to Dr. Cherry's Service, Harlem Hospital, June 19th, 1925.

Menstrual History: Onset 19 years, lasted 4-5 days, every 30 days, no accompanying symptoms. Continued regularly up to the present illness. Menorrhagia periods are now extended from 7 to 8 days, and often longer. These started 6 months ago with occasional dysmenorrhea. She has never missed a period. Last period, June 4th (8 days).

CC: Enlargement of the abdomen, dysmenorrhea, metrorrhagia, duration 6 months.

Diagnosis: Multiple Uterine Fibroids.

Operation: June 12th, 1925. Hysteroplasty as described. Both tubes transformed into a hydrosalpinx. Both tubes removed. Both ovaries conserved. Several section fibroids were found in the lower third of the uterus. Patient developed post-operative Phlebitis.

Discharged: July 17th, 1925.

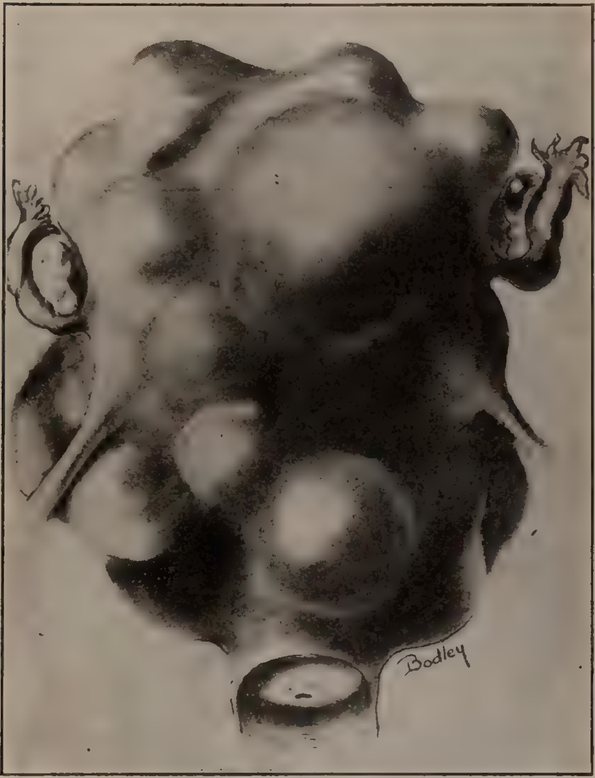

Fig. 7—Type of myoma in which a supracervical hysterectomy is almost invariably performed.

Follow-up Notes: Patient reported to clinic on August 22, 1925, as having her menstrual period starting on August 10, for 3 days, moderate amount of blood and little pain. Pelvic examination, negative.

September, 1925. Menstruated for 6 days.

Social Service Department has been unable to locate patient, so that I am unable to report further on this case.

Case No. 3. E. C., Age 31 years, Admitted to Dr. Cherry's Service, Harlem Hospital, April 27, 1925.

Menstrual History: Started at 15 years, every 30 days, for 4-5 days. Last period, April 12 to 17, previous period just one month before.

CC. Enlargement of the abdomen and pain in R. L. Q.

Diagnosis: 1. Fibroid Uterus.
2. Ovarian Cyst (?).

Operation: Hysteroplasty as described. April 29th, 1925.

Uterus was found to be converted into a globular mass about 20 x 16 cm.

In the amputation of the upper two-thirds of the mass a small piece of fibroid tumor was left in the lower uterine segment. This was enucleated. Both ovaries were conserved. Patient made an uneventful recovery.

Discharged: May 16th, 1925.

Follow-up Notes: First menstruation, June 6th, dark fluid blood.

July 11th, patient menstruated for 10 days, no clots. Pelvic examination negative.

March 15th, 1926. Patient states that she has menstruated every month since operation, without any pain, bleeding from 3 to 5 days. No menopausal symptoms. General condition, excellent. Vaginal examination, negative, remnant of uterus, anterior, freely movable.

It is too recent a date to report on the other 5 cases, as they were only operated during the months of February and March, 1926. However, one of the patients menstruated during her convalescence while still in the Ward.

Conclusion: Enough time has not elapsed to formulate definite conclusions. However, it seems from these case reports quite evident that the operations performed on these patients, with the view of preserving the menstruation and the prevention of menopausal symptoms, accomplishes the intended result. Any unbiased physician must thoroughly agree with Bell who states, "The preservation of the genital function in the female, even though conception be impossible, is a surgical ideal to which we should strive to attain whenever operation on the female genitalia is necessary," and with Wm. H. Mayo, "I would reiterate that the conservation of the menstrual function is of the utmost importance even if pregnancy is not possible, and that the surgeon who faces the necessity of removing the ovaries or the uterus and bringing about all those endocrine changes attending the procedure, is taking a serious responsibility which must not be assumed lightly."

THE IMPORTANCE OF THE EARLY RECOGNITION OF UROLOGIC PATHOLOGY*

By HENRY G. BUGBEE, M.D., NEW YORK, N. Y.

THREE types of lesions of the urinary tract may be eliminated or controlled if recognized in their early stages yet are fatal if allowed to progress. They are: malignancy, tuberculosis and prostatic obstruction.

While other types of malignancy are found rarely, carcinoma is the growth which may involve the mucous membrane lining any part of the urinary tract, the sex glands (tests and prostate) or the kidneys. The frequency of its incidence is being appreciated more and more through the accuracy of urological diagnosis brought about by cystoscopy and urography. Our hope for the future lies in our ability to get these cases in their incipiency which means the recognition of the earliest signs and symptoms by the general practitioner and their referring them to the urologist for his study until the presence or absence of a new growth is established. Carcinoma of the urinary tract occurs most frequently in the bladder, next in the prostate, and next in the kidney. A large percentage of bladder carcinomata originate as a papilloma which may cause no symptoms for years until a sudden attack of hematuria leads to a cystoscopic examination and its presence is discovered.

Sad to relate, patients are often brought to us by a physician with the statement that possibly three or four years previously they had passed a little blood but the bleeding had stopped readily with or without medication, or, the patient may not have even consulted a physician. The papilloma which could easily have been eradicated has become a malignant growth which may be incurable.

Tumors of the bladder seldom cause symptoms early in their existence but sooner or later give rise to the presence of blood cells in the urine which may for a long time be microscopic, or a true hematuria may give the first inkling of their existence.

Periodical urinanalysis demonstrating the presence of microscopic blood cells, or an attack of hematuria, should always lead one to suspect a tumor of the bladder—and calls for a cystoscopic examination, bearing in mind the fact that a benign papilloma may be eradicated by fulguration while the possibility of a cure in malignancy is diminished with each day it is allowed to remain.

Frequency and dysuria are late symptoms in bladder tumors.

Carcinoma of the prostate occurs in about 15 per cent. of all men seeking relief from prostatic obstruction. Unfortunately the process originates in a part of the gland that is little involved in urinary function and extends but late to those parts of the gland that give rise to urinary symptoms. The habit of making a rectal examination on all males as a part of a physical examination will however make it possible to detect irregularities, induration and fixation of the prostate in an occasional case at a time when operation or radium might be employed with a hope of eradicating or arresting the growth, giving the patient years of life and comfort, while detection of the pathology when retention has taken place probably means that measures tending to relieve the patient's suffering is all that can be hoped for.

A charming old gentleman of 74 recently came to see me in great distress, complaining of extreme frequency and dysuria which he dated back but three weeks. Careful questioning, however, revealed the fact that he had been under treatment at intervals for pains in the groins and legs over a period of several years. He had been told that to urinate once or twice a night was quite normal for a man of his years and only the day before I saw him, had a rectal examination been made. The prostate in this case was the seat of a carcinoma which had extended to the rectal wall and to the pelvic bones on either side.

Prostatic calculi may easily stimulate a new growth but an X-ray readily demonstrates their presence.

Until urography with the careful study of pyelograms became a more common practice, tumors of the kidney were seldom diagnosed until the disease was so far advanced that nephrectomy offered little more than a temporary relief if indeed it was possible at all.

Now with reference to the urologist of early cases of hematuria and occasionally of patients whose urine shows the presence of microscopic blood cells: we are finding tumors of the kidney much more often and at a time when nephrectomy means a cure. In the absence of a tumor of the lower urinary tract or the presence of a calculus or infection of the upper urinary tract, the persistence of blood cells in the urine must be looked upon with suspicion as possibly pointing to a renal tumor.

During the past two years the writer has operated eight cases of renal tumor in four of which only microscopic blood cells were found in the urine. Repeated observations and pyelograms were necessary to demonstrate an increasing filling defect of the kidney pelvis by which means the diagnosis was made, resulting in an early nephrectomy. In only three very recent cases was a tumor mass palpable. In a fourth the kidney was palpable, and here due to a prolapse of the organ, X-rays showing no increase in the size of the kidney outline.

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* Presented before the New York County Medical Society, January 24, 1927.

If one waits for a frank hematuria and a tumor mass, the time has probably passed in which one may expect a cure through operation. Periodical cystoscopic examinations should be made following an apparently successful operation for malignancy, even though there are no signs or symptoms indicating a recurrence of the growth.

Spontaneous frequency of urination, dysuria and pain in the perineum or urethra following urination, in young adults, should be looked upon with suspicion as indicating tuberculosis of the urinary tract. Yet I have seen cases in which these symptoms were negligible but repeated observations instigated by the finding of pus cells in the urine have led to a positive diagnosis.

While in many instances the history of a tuberculous process elsewhere in the body may be obtained, or such an active focus may be present, yet in others the original focus may have been overlooked.

I have been much impressed with the increasing alertness with which the urinary tract is being watched by specialists in treating cases of pulmonary and general tuberculosis. These men are apparently awake to the frequency of renal involvement, its importance as a vital factor in turning the scales toward recovery, and the possibility of its cure when discovered early in its existence.

The pathology of renal tuberculosis is such that it is often one of the most difficult of all urinary diseases to diagnose. I speak of urinary tuberculosis as renal tuberculosis as only in a very small percentage of cases is the urinary process primary outside of the kidney.

That rarely tubercle bacilli filter through the kidney leaving very little if any kidney destruction, that minute tuberculosis of the kidney is more often bilateral than was at one time believed, has been proven by recent investigations. These however are not the usual courses of the disease. Tubercle bacilli lodge in the parenchyma of the kidney and often cause extensive destruction of the kidney before such foci break through into a calyx and secondary deposits take place in the pelvis, ureter and bladder, with the onset of the distressing urinary symptoms before mentioned. The body possesses remarkable resistance to tuberculous foci as shown by its efforts and often success in walling off such processes so that the discharge of tubercle bacilli, pus and blood from the kidney is intermittent and the urinary symptoms are correspondingly so.

The first symptom of renal tuberculosis may be a rather profuse hematuria. This occurs when the focus is in a renal papilla with early ulceration through into a calyx.

It is not my purpose to elaborate the technique of the diagnosis of urinary tuberculosis. The possiblility of such a focus must be borne in mind when persistent frequency and dysuria are present or pus and blood cells are found in the urine and the patient should be referred to a competent urologist.

Patience must be exercised in arriving at a diagnosis, for cystoscopic manipulation may be difficult, the findings misleading, and repeated observations over a period of time necessary to correctly interpret the pathology and outline the proper course of procedure.

The following case, still under observation, presents so many phases of this disease that I wish to briefly mention the salient facts:

A girl 18 years of age gave a history of tuberculous cervical adenitis as a child, of continued poor health, and for two months of frequent painful urination, with great distress in the perineum at the end of urination. She was poorly nourished, still had large cervical lymph nodes. Her lungs gave no positive signs of active tuberculosis but there were numerous areas of fibrosis. The systolic blood pressure was 75, digestion poor, and intestinal activity decidedly sluggish. Under general medical treatment, open air, nourishing diet, improved elimination and free administration of santol oil, the urinary symptoms subsided and a cystoscopic examination was possible. The bladder showed extensive tuberculosis. The right ureter was catheterized with difficulty owing to several constrictions, and the kidney specimens and pyelogram showed extensive tuberculous involvement on this side, the function being one-fifth that of the left, the left kidney however being the seat of a colon bacillus pyelonephritis. Under continued systematic treatment this patient steadily improved so that after a period of four months the bladder was practically clear of tuberculosis, the right ureter was easily catheterized, no tubercle bacilli were found in the urine, and the colon bacilli had disappeared from the urine on the left side. The function of the right kidney was now one-third that of the left. The blood pressure averaged over 90. She had gained 25 lbs. Under regular observations this improvement has been maintained.

I do not cite this case as one of cured tuberculosis of the kidney, or as an argument against nephrectomy, but as showing the remarkable reparative power of nature which should be utilized to the fullest, as demonstrating the patience necessary in arriving at a diagnosis, and of the necessity of continued observation.

Renal tuberculosis is progressive in its pathology and with the usual destruction of kidney tissue, pockets form which drain poorly, and often become the seat of pyogenic infections which later give rise to symptoms. Long periods of quiescence are possible and a lighting up of the acute process may take place at any time. However, in this case nephrectomy at the outset would have carried with it a high degree of mortality, while if operation now becomes necessary we will have a good operative risk. The operation may be carried on in two stages in the occasional case where the removal of a large pyonephrosis in one stage would involve a decided risk.

If the general practitioner realizes that patients are to be studied in a careful painstaking manner and not rushed into an operation, I am sure they will be more ready to have the proper investigations carried out and the end results in renal tuberculosis which have already vastly improved will be increasingly more satisfactory.

The importance of prostatic obstruction with its secondary pathology in the urinary tract and its bearing upon the vital body functions, its distressing symptoms and its operative relief are pretty thoroughly understood today; yet how many of these patients are brought to us when retention is complete and the system is thoroughly undermined through impaired renal function and its secondary effects.

Changes in the prostate resulting in disturbances of urinary function begin to take place in middle life, at a time when man begins to lead a more sedentary life, the urine is more irritating and changes in the sexual life of the individual are common. These factors lead to congestion, which is the first stage of hypertrophy. At this stage of prostatic hypertrophy the symptoms are negligible and future progress is in most instances so slow and the onset of symptoms so gradual that they are often overlooked by the individual.

The importance of this stage is being appreciated more often however, for I frequently have men sent to me who have never noted any urinary symptoms but who say that their doctor in the course of a physical examination had made a rectal examination and stated that the prostate was enlarged.

Measures tending to reduce prostatic congestion including regulation of diet, general hygiene, improved elimination and mild local treatment often relieve this congestion at once, and under periodical observation I have seen many of these cases go on in comfort and without further prostatic enlargement for 10 and 15 years. Periodical health examinations have gone a long way toward drawing the attention of individuals to the great value of these surveys.

If true hypertrophy exists and this cannot always be determined by the presence or absence of residual urine but often only by means of a cystoscopic examination, the prostate should be removed.

An operation once carrying a mortality of 25 per cent. has now become—through improved technique, regional anesthesia, proper preparation and post operative care—a procedure carrying a surprisingly low mortality.

A rectal examination showing no enlargement of the prostate does not exclude the possibility of an intravesical hypertrophy, a fibrous prostate or a nerve lesion as a cause for retention. Observation of the interior of the bladder will exclude these possibilities, also a diverticulum of the bladder, a condition frequently overlooked.

Instrumentation in these cases must be carried out with extreme caution and gentleness, for traumatism may open up an avenue of infection and the case becomes an operative one at once.

If retention has taken place, catheterization may be difficult or impossible. A suprapubic aspiration partially relieving the back pressure may be preferable and the danger of completely emptying the bladder at one time must be borne in mind.

While these three groups of cases are the ones I wished especially to call your attention to, I would like briefly to mention several other types.

Calculi single or multiple may remain in the kidney, ureter, bladder or prostate for long periods of time, occasionally for years, and give rise to symptoms to insignificant or misleading as to render their presence unsuspected. Seldom however will the urine in such a case be free of microscopic blood and pus cells which when found should always lead to the taking of Roentgenograms of the urinary tract.

While a supply of organisms to the urinary tract is necessary for a urinary infection necessitating the discovery of the primary focus and its elimination, one must bear in mind that disturbed drainage is also an important factor, and that to clear up a urinary infection without a thorough study of the entire tract is often futile. This fact has been recognized in adults and recent investigations of the urinary tract in infants have shown the same to be true. The incidence of congenital anomalies as a cause of impaired drainage is particularly important and many of the urological lesions of adults are also found in children.

An acute urinary infection that does not respond readily to medical treatment, and a chronic infection even in the absence of urinary symptoms, the urine continuing to show microscopic pus and blood cells, should have the benefit of a complete urological examination.

In conclusion I wish to emphasize the following: If one waits for definite physical signs and symptoms of urologic pathology, the opportune time for a cure may have passed. Particularly is this true of malignancy, tuberculosis and prostatic obstruction. Any symptom or physical sign elicited preferably through periodical health examinations which may suggest a pathological condition of the urinary tract, should lead to a complete urological examination.

Chemical and bacteriological examinations of sterile specimens of urine should be made at regular intervals. With the presence of bacteria, pus or blood cells a catheterized specimen should be obtained in the female. Even in the absence of urinary symptoms the individual showing pus or blood cells should be under observation, and if the urine does not clear at once, cystoscopic and X-ray investigations should be made.

Few urological lesions are of an emergency nature. They call for painstaking study, often over a period of time. When surgery is indicated a careful consideration of operative procedures, the employment of accurate surgical technique, intelligent post operative care, and continued observation are essential.

INJURIES TO STENSON'S DUCT*

By ARTHUR M. DICKINSON, M.D., ALBANY, N. Y.

LACERATION or section of Stenson's duct is not a common condition. During the late war it was seen more frequently because of the relatively high incidence of lacerated wounds of the face. In civilian practice, however, this condition is seen rather infrequently and so, many surgeons assume a rather helpless attitude when confronted with it. As the result of section of the duct, a very distressing condition is created in which the saliva drains out on the cheek. Primary repair of the duct is always worthy of trial and in some instances is followed by very gratifying results. Secondary repair is always much more difficult and the results are not always so satisfactory.

Stenson's duct or the ductus parotideus is about 5 to 6 centimeters in length. At the origin of the duct in the parotid gland the lumen is about the size of a crow quill; at the site of opening into the mouth, the size is considerably reduced. The duct wall is quite dense and moderately thick. The duct arises from numerous branches in the anterior part of the parotid gland. Its course is across and superficial to the Masseter muscle, at the anterior border of which it turns inward sharply and passes into the substance of the Buccinator muscle. It then pierces the Buccinator and runs obliquely forward between the muscle and the oral mucous membrane and opens upon the inner surface of the cheek opposite the second upper molar tooth. While crossing the Masseter muscle, it commonly receives the duct of the Socia Parotiditis which is frequently a separate glandular structure. From this brief review of the anatomical points, it will be seen that the portion of the duct as it lies superficial to the Masseter muscle is more exposed to injury than the portion within the Buccinator muscle. Also it will be quite obvious that injuries to the Buccinator portion of the duct may be quite simply treated by making a new opening in the oral mucous membrane through which the saliva will drain, whereas injuries to the portion of the duct overlying the Masseter muscle will require more complicated treatment.

Immediate repair of injuries to either portion of the duct is indicated, for if successful repair is not accomplished a salivary fistula, which is very distressing, will result. Salivary fistulae commonly persist until death unless infection of the gland occurs. Infection of the gland may be so severe as to require incision and drainage of the gland. On the other hand, as a sequel to infection, resolution may ensue and be followed by atrophy of the gland, which is a fortunate termination of this condition.

In lacerations of the Masseteric portion of the duct, immediate repair should be tried. Some surgeons claim that attempts at primary repair are never successful; however, results following attempts at primary repair are so satisfactory in some instances, that the attempt is justified in every instance. Immediate repair of the Masseteric portion of the duct demands care and patience. An attempt must be made to suture the severed ends of the duct and to preserve the lumen. The wound must be enlarged sufficiently to enable the operator to see the ends of the duct clearly. This clearness of field can only be secured when all bleeding points are controlled. In enlarging the wound and clamping the bleeding vessels, the branches of the facial nerve are to be carefully avoided. Difficulty is often encountered in locating the distal end of the severed duct, but if a filiform or a small probe is passed up the duct from the oral cavity, its location becomes manifest. The proximal end of the duct can often be located by watching for the site of appearance of the saliva. Having isolated both ends of the duct, these should be carefully sutured together over some object as a guide. Gilette recommends a small twisted piece of lead, which is held in place by sutures coming out on to the cheek. The spiral turns of the lead allow the secretion to find its way along the duct and the ends of the duct are held in apposition by the lead and by suture. He leaves the lead spiral in the duct for about four weeks, during which time the lining membrane of the duct has presumably reformed. He releases the lead by simply cutting the stay sutures which were brought out on the cheek. Other writers recommend various materials as guides. A small piece of catgut extending down from the gland across the site of section but not into the mouth, is reported as having worked well. It absorbs quickly, far too quickly, it would appear, to have much value in holding the ends of the duct in place or in maintaining a lumen until the mucous membrane has bridged the gap and the duct has healed without stricture. Suture of the duct is delicate work and I can heartily commend, for this work, the small needles and holders such as our ophthalmic surgeons use.

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* Presented in abstract at Staff Meeting of Memorial Hospital, Albany, N. Y., March 8, 1927.

Primary repair of fistulae of the buccal portion of the duct may be attempted along similar lines. In these cases results are discouraging and recurrences frequent. Probably the easiest and most satisfactory method of dealing with fistulae of this portion of the duct consists in converting the external fistula into an internal one. The end of the upper segment of the duct is pushed through the mucosa of the mouth, which allows the parotid secretions to drain into the oral cavity instead of on the cheek.

Report of Case

S. C. M. admitted to the Memorial Hospital on July 14, 1926, with a lacerated wound of the left cheek which had been sutured before admission as an emergency measure. The wound was ragged in outline, about two and one-half inches in length, placed obliquely just in front of the parotid gland. The entire side of the cheek was swollen and blood was draining freely from the wound. The injury had occured about thirty minutes previously when the patient accidentally ran into a projecting angle iron. The sutures were immediately removed from the wound and the wound blocked off with novocain solution. The wound extended through the Masseter muscle down to the oral mucosa. Several small spurting vessels were secured and tied off. As the field was cleared, several nerve filaments (branches of the facial) and the edge of the parotid gland were observed. The proximal end of the duct was recognized by the collection of a pool of saliva about it. The distal portion was located after a painstaking search of the wound. Attempts at passage of a probe upwards from the oral cavity failed. A silk worm gut suture was then passed up the proximal portion of the duct to the gland and the other end pushed down the distal portion until it emerged in the mouth. With the duct held in place by the contained silk worm gut, its ends were carefully sutured with double O chromic catgut. A small gauze drain was then inserted in the wound down to the duct and the wound closed with fine silk. The silkworm gut was fixed at its point of exit into the mouth, by a suture. After two days the silkworm gut came out into the mouth and had to be removed. The drain in the wound was removed on the fifth day. Ten days after operation there was moderate salivary drainage through an external fistula with some swelling and tenderness of the parotid. Twenty days after operation there was still slight drainage through the external fistula and moderate swelling of the parotid. One month after injury there was no discharge from the fistula and no swelling of the parotid. On the forty-first day after injury, the wound of the cheek was entirely healed, the parotid appeared normal and the patient was discharged from further care. Check up six months later revealed no evidence of the former injury except slight scarring of the face. The patient reported that he had had no trouble of any kind with the face since discharged from treatment.

Conclusions

1. Attempts at immediate repair of lacerations of Stenson's duct should always be made.
2. Careful suture of the severed ends of the duct should be undertaken if at all possible.
3. Surprisingly satisfactory results occationally follow the attempts.

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EDITORIAL

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The lists of the new officers and committees will appear in the June 1 issue.

For list of officers of County Medical Societies, see the Journal, April 15 issue, page xxx

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NEWS OF THE ANNUAL MEETING

As this Journal goes to press the Annual Meeting of the Medical Society of the State of New York is about to close. The proceedings were conducted with the utmost goodwill and harmony, and a spirit of progressiveness pervaded the entire meeting. The local preparations made by the Committee on Arrangements were most excellent, and all the members and their wives enjoyed themselves to an unusual degree.

A general account of the sessions and other activities of the meeting will appear in our next issue. The formal minutes of the House of Delegates will be printed as soon as they can be transcribed and verified, probably in the June fifteenth issue.

PREVENTIVE AND CURATIVE MEDICINE

The object of the practice of medicine is to bring health to every person. The practice fails in its high aim in so far as it fails to make every person healthy.

Who is responsible for the continuance of ill health? Are the doctors responsible? Or are the people themselves?

If the people are largely to blame for ill health, who is responsible for their failure to attain good health? Is poor health and physical disability a crime, as some public health writers assert?

All living things are engaged in an adaptation of their environments; and the greatest struggle of all is that among men. Competition is keen everywhere, and men take supreme pleasure in defying the natural laws of Nature as they imitate the birds of the air and the fish of the sea in an attempt to attain within the span of a single life that adaptation to their surroundings for which lower animals took millions of years of preparation.

Then, too, men are carrying the contest between the mind and the body to the utmost lengths. Feats of endurance consist largely in the dominance of mind over the body until the physical powers reach the breaking point.

Men will never be satisfied with mere health—the essence of modern competition and progress is that of using the vigorous body and mind to the limit of endurance.

When public health orators speak glibly of the displacement of curative medicine by its preventive form, they overlook the tendency of men to use their bodies to the limits of endurance. Men who have achieved success and fame show an increasing rate of mortality because they drive their bodies at high speed long after the warning signs of impending disaster are apparent to the prophetic eye of the doctor. So long as the modern system of competition prevails, just so long will the practice of doctors be predominantly curative.

If the more prosperous class of men will not give heed to the warnings of preventive medicine, what may be expected from those who are not only unable financially to adjust themselves to their environment, but also lack the knowledge of how to maintain health? Instruction and inspirational talks will help the poor and the ignorant to safeguard their health, but they will lag far behind their more favorably situated brethren in the care of their health. Curative medicine will be the most common form of practice among the poor as well as the rich.

The conditions which cause ill health are essentially the same among all classes of people. Worry affects the rich as well as the poor; dancing during late hours is as fatiguing as trundling a wheelbarrow; and an unbalanced diet is as weakening to the eaters of ice cream as to those who live on potatoes. All men are equals in the sight of their stomachs.

This line of argument does not tend to disparage preventive medicine. On the contrary it opens up an immense new field of practice. It is intended to call attention to the fact that the millennium of perfect health has not yet arrived. Doctors merely have a glimpse of the new field of practice; and that field is so vast that it will never be overcrowded.

Neither is there a sound basis for supposing that the days of curative medicine are numbered. Doctors who have learned the arts of physical diagnosis and the prescribing of medicines will have abundant use for their skill through long lives of usefulness.

The practice of preventive medicine will probably develop along the lines of the recognition of disease at progressively earlier stages until finally the approach of disease will be detected while it is yet afar off and conquerable.

Doctors alone cannot practice preventive medicine—at least not for years to come. The people must have something more than a mere academic desire for health—they must seek it with all their powers.

Preventive medicine must wait on popular education in the elements of hygiene and medicine. People still desire "tonics" to make them strong, and "sedatives" to quiet their excitement. The newly-found prosperity which has come to all classes, the rich and the poor, have found men unprepared to cope with its dangers. Even in infections they are unwilling to forego the pleasures and luxuries of life for a few days in order to avoid spreading their colds and sore throats. Isolations are for the other fellow.

The people have yet to learn the lesson that health cannot be bought, but it must be achieved by self-denial and the active practice of the health virtues.

It is difficult to see how physicians can carry their campaigns of education to much greater lengths than at present. The education must spread from a few laymen who will influence an ever-widening circle of contacts until the desire for health becomes a popular movement that submerges the desire for pleasure and new thrills.

The creation of a new attitude toward health is the work of voluntary health organizations. They are the potent agents which will be the efficient allies of the medical profession in leading the people to the Promised Land of Health.

MEDICINE IN THE DAILY PRESS

The reader of a daily paper can find information on almost any subject. The newspaper is not a medical journal, and yet it contains so much medical news that one successful practitioner of medicine said that he did not take a medical journal because he got his medical information from the New York Sun.

The medical news contained in the leading newspapers is surprisingly accurate as to facts. If it is wrong, the fault lies with the physicians who supply the news rather than with the reporters and editors. The newspapers are also wise in their editorial comments on current medical news and in the instruction which they give to the public. The subjects of which they treat have the added advantage of being those chosen by experts in the art of interesting the people. If the daily paper of a large city carries medical news and editorials, one may be sure the items have a human interest to the public.

The newspapers also note the anniversaries of leading medical events, such, for example, as the editorial in the *New York Herald-Tribune* of April 20, entitled "A well-remembered leg," in which is recalled the boy whose compound fracture of his leg on August 12, 1865, received the first antiseptic treatment given by Joseph Lister, with complete prevention of the supperation which had always accompanied such wounds. Where else than in a daily paper would one be likely to find such information?

The Daily Press department of this Journal is a concrete demonstration of the high standard of medical news in the current newspapers.

CONFLICTING TESTIMONY

The legal department of this issue, page 560, contains a description of a lawsuit in which three stories are told. The first is the story of the patient who claimed that the doctor was negligent when he performed a serious operation on her. The second story is that of the doctor who said he had applied ichthyol to her cervix at an office call, and had later visited her twice in her house for mild pleurisy.

The third story was that of a physician who had examined her six months later and got a history that she had been in a hospital for a miscarriage and posterior pelvic abscess, of which corroborative signs remained in the pelvis. When the case came to trial, the patient failed to appear.

Accurate records constitute the best kind of insurance against malpractice suits.

LOOKING BACKWARD

The New York State Cancer Laboratory:—This Journal for May, 1907, contains a paper by Dr. Roswell Park, Director of the State Cancer Laboratory, in which he referred to the impatience of legislators who expected an immediate solution of the problem of the cause and cure of cancer, and wrote:—

"The ever-present question with us is one of self-existence. It may be perhaps thus put: Does the work accomplished justify our continuance until it has been in some measure accomplished? There can be no doubt that if any unprejudiced person will visit the institution and acquaint himself with what is doing and has been done he will leave it feeling that it is one of which New York State may well be proud, and that it is deserving of the heartiest public support. Some of our legislators unacquainted with its purposes and the character of its work have come in hostile spirit ready to condemn. In every instance, however, they have gone away enthusiastic supporters and have ever since been our best friends.

"For my own part, if I may close this report with a personal sentiment, I cannot help feeling that we are today much nearer the secret so long sought than we were eight years ago. In fact, I feel that the past eight years have taught us more than the previous eight decades, and that much of what has been thus revealed has come from the little institution in western New York, which has been supported by the State, urged thereto by the importunity of a few friends of science and progress who have had sufficient influence to secure the amounts appropriated, though each year with difficulty and after long-winded explanations and personal solicitations. This should not be necessary were there a sufficiently and reasonably wide comprehension of the difficulties attaching to such scientific research. For myself, the most important question is settled, although it is not yet in such shape that it can be briefly stated or widely taught, nor perhaps can we expect it to receive the prompt and unanimous acceptance of a profession which is always slow to accept even revealed truth."

MEDICAL PROGRESS

Encephalitis Complicating Measles.—The increased tendency to encephalitis at the present time has been made manifest by much cumulative testimony. This lesion was recognized as a sequela in the recent pandemic of influenza and at a still earlier period Economo isolated the disease known as legarthic encephalitis. An association, which is largely experimental, has been recognized between the diseases herpes and varicella and encephalitis, and last year the development of postvaccinal encephalitis led to the recollection that the latter occasionally follows or complicates variola. It is even claimed that the meningoencephalitis of metasyphilis appeared only within comparatively recent years as a result of certain unknown factors which make the human brain less resistant to infection. Hence it need not surprise us to read an account in the *Muenchener medizinische Wochenschrift,* January 21, 1927, by F. Lust of four cases of encephalitis complicating measles, which was not especially prevalent and not of severe type. This complication is not entirely unknown for it is mentioned in old as well as comparatively recent textbooks, sometimes with descriptive cases. It has always been a very rare complication yet here is one practitioner who saw four cases during the past year. There was a marked absence of type and the picture varied from typical encephalitis lethargica to narcolepsy. The author is not the first recent writer to enter this field for he was preceded by Mosse and Brock. Despite the high natural mortality of encephalitis the author's patients all recovered. In addition to simple encephalitis, cases have been described of exclusive myelitis and polioencephalomyelitis.

Ligation of the Jugular Veins in Septic Angina.—R. Stahl of Professor Curschmann's medical clinic at Rostock refers to the apparent role of peritonsillar thrombophlebitis in the production of fatal postanginal sepsis. In theory ligation of the jugular of the affected (thrombosed) side might save life. Professor Lenhartz has recently reported a series of fatalities in which operation was not performed in time to rescue the patient. No similar case could be found in the Rostock records, but singularly enough one presented itself during the research. The patient, a man of 33, had a quinzy of the right tonsil in which the abscess opened spontaneously; after this the lesion developed in the opposite side. There were evidences of beginning sepsis although nothing to suggest thrombophlebitis on either side. It was recalled by a consultant that the latter lesion could run a silent course, and at his suggestion the jugular vein of the left side was tied after operation had shown that a thrombus had actually formed. It was evident, however, that the thrombus was not isolated and it doubtless extended into the subclavian vein. The patient survived the operation some days, but succumbed finally with evidences of septicopyemia. Thus far at least twenty cases have been treated in this manner without saving life —the fatal ending presumably being due in part to the fact that metastases had antedated the operation. The sole way in which thrombosis can be recognized clinically is by the supervention of rigors—a pathognomonic sign. That life can be saved occasionally by the operation is shown by the favorable cases of four reporters although the high mortality indicates that success is problematical.—*Deutsche medizinische Wochenschrift,* January 28, 1927.

The Indiscriminate Use of Iodine a Menace to Goiter Patients.—Israel Bram, writing in *American Medicine,* February, 1927, quotes from a number of authors who protest against the indiscriminate use of iodine and iodized products for the prevention and treatment of goiter. He states that though minute doses of iodine might be found useful in the prevention of goiters in the so-called "goiter belts," the enforced administration of this drug through legislative enactments, and even through so-called educational health movements, is productive of more harm than good. While a percentage of goiter cases present in so-called belts is probably due to iodine deficiency, there are many, if not more instances of goiter in those regions due to other causes, among which are the physiological changes incident to adolescence, pregnancy, lactation, menopause, the infections, and heredity. The administration of iodine cannot assist these patients to health. Iodine probably improves exophthalmic goiter temporarily, but Bram has seen some instances in which the administration of iodine in exophthalmic goiter has resulted in "tremendous enlargement of the thyroid gland to such an extent as to produce almost fatal asphyxia from pressure, and the remaining symptoms of the disease were brought to such a high peak of crisis as to render it almost impossible to bring the patient back to a degree of safety." When surgeons admit, as many of them now do, that they do not succeed in curing exophthalmic goiter through thyroidectomy, and many other keen and open-minded clinicians condemn the application of the knife in this not local, but constitutional condition, it is time that everyone should awaken to the realization of cold facts. The time has come, Bram says, when indiscriminate thyroid surgery and the fad of iodine administration in all cases must cease.

Diathermy in Hypertrichosis.—P. J. Van Putte, a dermatologist of Utrecht, mentions the unsatisfactory character of the usual treatment of facial hypertrichosis, for the patients demand that the hair papillæ be destroyed yet without visible scarring, while they object to the pain of ordinary electrolytic epilation. It was once thought that röntgen epilation would answer the various requirements of the patient, but the dose required to destroy the hair papillæ is too great and the method is now restricted to epilation in connection with the treatment of favus and parasitic sycosis. Quite recently diathermy coagulation has come to the front and there is seen to be an immense economic advantage in this method over electrolysis, for in the latter there is necessary an exposure of 40 to 60 seconds with an intensity of 2 milliamperes, while in diathermy, with an amperage 150 times as great, the duration required is but 1-10 second, and even less. Diathermy has been used with widely differing technique, by Lanzi of Italy, Bordier of Lyon, Rostenberg of New York, and Kats and others besides the author in Holland. Thus Lanzi requires a contact of but 1-200 second while Bordier uses an intensity of but 20 to 50 milliamperes with an exposure of a few tenths of a second, and Rostenberg 80 milliamperes with an exposure of 10 to 20 seconds. The contacts are made with needles and their holders, as in electrolytic epilation, with various provisions for insulation. The author says he gets the best results with 40 to 50 milliamperes and about one second of contact for hairs of medium thickness.—*Nederlandsch Tijdschrift voor Geneeskunde,* February 19, 1927.

Treatment of Eclampsia in General Practice.—Cellan Jones advises that with the onset of premonitory symptoms of eclampsia the patient should be confined to bed, and three ounces of compound senna mixture, with one dram of magnesium sulphate to each ounce, should be given every eight hours. No food is allowed, but water or weak tea is permissible. Large fluid consumption must be continued until forty ounces of urine have been passed on two consecutive days. Then if all is well, milk may be given, leading to other light diet. In the more severe cases, especially those beginning after labor has been terminated, morphine is given in sufficient doses to keep the patient narcotized. Magnesium sulphate, by its synergistic action, enhances the sedative effect of the comparatively small doses of morphine. Luminal has replaced chloral hydrate, for the reason that it is not a cardiac depressant like chloral, and in addition has a specific dilating effect on the vessels of the brain. Although, generally speaking, Jones does not believe in venesection, he recommends it in practically every case in which the blood pressure exceeds 140 mm. of mercury; and even this stipulation may be disregarded when the rectal temperature is high and convulsions frequent. The use of pituitrin in eclampsia he regards as most dangerous. When labor complicates eclampsia, if the cervix is not dilated, manual dilatation should never be employed, and version is contraindicated unless delivery is impossible without it. Forceps may be resorted to only to shorten the second stage, when the cervix is fully dilated and the presenting part almost on the perineum. The treatment adopted for the eclamptic state must be that which is least exhausting to a comatose patient with rapidly recurring and dangerous convulsions.—*British Medical Journal,* February 19, 1927, 3450.

Tender Spots on the Chest Wall in Angina Pectoris.—Morris H. Kahn calls attention to the hyperesthesia of areas on the chest wall which is commonly found in association with anginal pain. It is referable to the impaired nutrition of the heart wall and the sensitiveness of the aorta and coronary artery area. It is often complained of by the patient and can be definitely localized objectively. Of 55 patients with angina pectoris, studied by the author, 48 presented tender spots along the ribs or on pressure over the sternum. This sign was also present in nonanginal cases of aortic or myocardial disease, but in individuals without heart involvement, tender spots on the chest were never found. In angina pectoris, the tender spots are most often located on the second, third, and fourth ribs to the left of the sternum (fourth cervical and second and third thoracic) and over the second and third ribs in the outer part of the right pectoral region (fourth cervical). The tender spots on the chest wall persist for a long time after an attack of angina pectoris and sometimes continue throughout the intervals between the attacks. They are especially valuable in the differential diagnosis between myocardial lesions and affections of the upper abdominal viscera. In eliciting the sign, uniform pressure is used by means of the thumb or tip of the finger over the sternum and ribs on each side. The periosteum of the ribs seems to show greater sensitiveness to pressure than the skin and seems to respond through the corresponding spinal segment to a much lower stimulus. When the points are found they can be recorded by a circle painted with tincture of iodine and a photograph of the chest then made for future use.—*American Journal of the Medical Sciences,* March, 1927, clxxiii, 3.

Treatment of Friedreich's Paramyoclonus Multiplex.—John Reid (*Practitioner,* March, 1927, cxviii, 3) states that Friedreich's myoclonus, which is a sudden, fast, snap-like clonic contraction of a muscle, a portion of a muscle, or a group of muscles, usually occurs in adults—males frequently. It is closely related to hysteria, chorea, convulsions, tic, and neurasthenia. The condition does not respond to medical treatment. As the attacks may be initiated by pressure over one ovary or testicle, the assumption is that paramyoclonus is due to a disordered state of the internal secretion of the gland in question. The treatment therefore resolves itself into ovariotomy complete on one side and partial on the other, or unilateral vasectomy in the male. The author cites the case of a woman, aged 56, who had had the disease for eighteen years and was cured by ovariotomy, a small portion of one ovary being left. In this case there were a few days of great depression, almost amounting to melancholia, followed by a few days of great exhilaration of mind, going on regularly over a long period. As the mental condition cleared up after a few months, it showed clearly that there were no real organic brain lesions. It therefore seems that operative treatment is surely justified. In a second case the author later performed a Lockhart-Mummery operation for bad rectal prolapse, with magnificent results. The shock and prolonged careful after-treatment required did not cause any recurrence of the spasms.

The Nervous Complications of Varicella, Variola, and Vaccinia.—E. Glanzmann of Berne has written a timely monographic article on this subject which would be too extensive for a short abstract were it not for the fact that the author thoughtfully tabulates all of his results in a small compass. Varicella has been followed by meningitis, myelitis, ataxia, tremor, hemiplegia, and chorea. However the entire number of these cases on record is below twenty, so considering the frequency of chickenpox they may be regarded as curiosities. Variola has been followed in a few instances by myelitis and paraplegia and by an association of aphasia and ataxia. Some of these observations are quite antiquated. Under vaccinia the author lists encephalitis, meningitis, and encephalomyelitis. These all appear to be of recent occurrence and show something like type, for the complications tend to develop around the eleventh or twelfth day after vaccination, although the limits are the fourth to the fifteenth day. We do not know whether all the known cases are included. Bastiaanse of Holland has one group of 35 cases while seven have been reported in England since 1914. Luksch reported four and Leiner three cases, while other scattering observations bring the total up to fifty-four. The author concludes that all three diseases can cause very similar nervous complications under unknown and extremely rare conditions. This similarity, he thinks, confirms his belief that the three are basically related. He has sometimes practised repeated vaccination in children with chickenpox but no case ever took. This immunity, however, is very short lived.—*Schweizerische medizinische Wochenschrift,* February 12, 1927.

Comparison of Functional Tests of the Liver.—W. Löwenberg with others from Professor Kuttner's clinic at the Rudolf-Virchow Hospital give the results of their comparative study of tests of the functional efficiency of the liver in the following summary: In catarrhal as well as in syphilitic jaundice it is possible to show with unanimity that the parenchyma is damaged and henceforth we must speak not of catarrhal jaundice but of a form of hepatitis. In hepatic cirrhosis overloading with galactose will show a functional disturbance while studies of the duodenal content and elimination of coloring matters are mostly unsatisfactory. On the other hand in syphilitic hepatitis the galactose test is a failure while a slight degree of urobilinocholia reveals disturbed hepatic metabolism. In uncomplicated cholecystitis and cholelithiasis none of the tests showed injury to the parenchyma although the appearance in the blood serum of quinine-resistant lipases in these patients may indicate mild injury. But cholangitides, in contradistinction to the conditions just mentioned, are often accompanied by functional insufficiency and in addition pathological organisms are found in the duodenum. In uncomplicated closure of the common duct there is no disturbance of function. In pernicious anemia there is no invariable insufficiency although there are frequently anomalies in the excretion of coloring matters. In practical importance the authors rank first the Ehrlich aldehyde reaction in the urine as indicative of slight degree of hepatic lesion. Next they enumerate the galactose test. Tabulations show that the regulation procedures comprise tests of the duodenal content, blood serum, and urine, chiefly for coloring matters and blood sugar, also the duodenal bacteriological flora. On the whole the authors regard these tests as of the greatest clinical significance. — *Klinische Wochenschrift,* March 5, 1927.

Papular Urticaria.—Rupert Hallam, writing in the *British Journal of Dermatology and Syphilis,* March, 1927, xxxix, 3, presents a study of the etiology of this peculiar disease of childhood, concerning which comparatively little information has appeared in the literature. The skin lesions resemble the bite of a flea or gnat, but the characteristic central hemorrhagic puncture is absent. In a series of 52 cases of papular urticaria, it was observed that when children were admitted to the hospital the condition rapidly cleared up. All of these children after recovery gave positive reactions to one or more protein extracts. As causative agents the bite of the flea, the louse, and the bedbug were excluded. Likewise neither the oxyuris vermicularis, the cockroach, the cricket, nor the proteins of domestic animals could be incriminated. Sensitization to mother's milk or other food proteins could not be definitely demonstrated, nor could the affection be attributed to proteins from a focus in the body of the patients, inasmuch as the rash disappeared when the children were placed in the hospital. The tests appeared to indicate the presence of a hypersensitiveness to protein, but did not afford a specific diagnosis. The author concludes that there is a primary undiscovered cause of papular urticaria and that there is some justification for believing that it is caused by protein sensitization, though the specific protein has not been determined.

Attempted Use of Living Saprophyte Cultures in Medicine.—F. Weissenfeld refers to a new product of the serum factories which is now made under a proprietary name and which consists of living cultures of saprophytic organisms which are thrown into the veins with the object of setting up an artificial fever. The idea is a direct outgrowth of the use of malarial blood and plasmodium cultures in metasyphilis and of cultures of the spirochete of recurrent fever in the same condition. The first question to ask relates to the possibility of serious damage, the second of course has to do with the question of efficacy. The author tested the cultures on paresis and on parkinsonianism following lethargic encephalitis, and relates four cases. Fever was not always produced but in two of the patients it went as high as 104° F. The author sums up as follows: the first subject with paresis tolerated the remedy well, but the therapeutic result was negative which was not surprising in view of the fact that the case was far advanced. The second paresis victim failed to react with fever after a number of injections. In the two cases of post-encephalitic disease there was a reaction in the joints, expressed in one merely by pain in one hip, and in the other a severe arthritis of a shoulder joint; while the mental state in the latter patient was aggravated.—*Deutsche medizinische Wochenschrift,* February 18, 1927.

Autopyotherapy.—A. Levinson of Moscow refers to articles of recent years devoted to this subject by Mokai (1923) and Barfurth (1926). He is silent on earlier efforts in this direction which go back at least 15 years, including the uses of pus by veterinarians. The method which he has practised may differ from its predecessors —most of them at least—through the fact the pus is injected in all of its natural virulence, so that we may speak of autoinoculation. (*Muenchener medizinische Wochenschrift,* February 11, 1927.) One would under such circumstances anticipate the development of abscesses at the inoculation site but the author does not desire such a result which he looks on as untoward, and in general abscess does not result and even when it does it may not discharge or require opening. The author reports briefly a number of cases in some of which the results were quite negative—thus a cold abscess was not benefited while in certain cases of purulent meningitis the infected liquor when injected was inefficacious. Among cases which appeared to yield to treatment were one of meningococcus meningitis in a baby, a purulent meningitis of unknown nature in a six-year-old boy, an abscess of the lung (post-pneumonic) in a baby, and an intermuscular abscess in a boy of 12 years. In the latter the pus from a secondary inoculation abscess was again inoculated. The author regards his results as sufficiently encouraging to go ahead with the treatment. He has no theory as to how such cases are favorably affected.

Albumin-Free and Salt-Free Diet in Fever.—S. Ederer and E. Kramár call attention to the increased breaking down of albumin in fever and the inability of the fevered organism to assimilate albumin. Hence it is an error to try to make good this deficit and the rational course is to eliminate protein from the diet. In fever there is an increased requirement of water with a diminished giving off of the same. Both albumin and salt play a rôle in the water economy of the body and both these substances increase the water requirement in fever. We know that in the nursling these two substances can also produce fever. Salt requires a certain amount of water for its osmotic activity which is substracted from that of the body requirement. In fever as in all other states the calory requirement must be maintained and after a year's experiment the authors announce the following as an ideal fever diet, though apparently they are chiefly interested in the first two years of life where the action of albumin and salt in the production of fever is obvious. For the nursling they prescribe doubly centrifuged cream containing 15 per cent. sugar in solution (equal parts cane sugar and dextrinized sugar) the cream is then further diluted with twenty parts of the solution. For older children the dilution is but 10 fold and cocoa is added. The nursling takes 100 mgm. for each kilo of body weight. The ratio of fat-carbohydrate-protein is 3.-15.-0.1, so that protein is almost absent. On this diet the fever abates.—*Deutsche medizinische Wochenschrift, March* 18, 1927.

LEGAL

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PHYSICIANS' HAZARDS IN A LUNACY COMMITMENT

On a farm several miles from a small village, there lived a farmer and his wife, to whom there were born a number of children who were raised upon this farm. As the children reached their adult years they moved into the adjacent village, some of them entering business, marrying and having families of their own and becoming prosperous respected citizens of the community. After the death of the father two of the daughters continued to care for the mother. They, too, eventually left the farm and moved with their mother to the adjacent village. These two daughters never married and continued, until the mother's death at a ripe old age, to attend and care for her.

The younger of the two daughters when well advanced in womanhood began to show and gave evidences of mental abnormalities and by reason of the close association of the two sisters the elder one likewise became mentally affected.

For a period of years their actions by neighbors and people of the village were denominated as queer. However, their mental conditions became progressively worse, so that neighbors and townspeople complained to the village authorities of the conduct and actions of the sisters because of their fear for their personal safety. The other members of the family of these sisters were naturally reluctant to take steps for the institutional care of the mentally afflicted women. The townspeople, however, bore the condition for a period of years until the situation became so acute that pressure was brought to bear upon the village authorities and the Overseer of the poor, in accordance with the authority vested in him by statute, petitioned for the commitment of the sisters as insane persons needing institutional care and treatment. After the making of the petition by the Overseer of the poor, likewise in conformity with the statute, a joint mental examination was made by two physicians, examiners in lunacy. These physicians were respected citizens of the community and had honorably carried on the practice of their profession for a great number of years. They had both observed the sisters for a long time and were familiar with their irrational actions and with their threats to neighbors and people of the village and of the disturbances which they had caused in the community.

After the making of their mental examination and the signing of their certificate of lunacy, the sisters were taken into custodian care in a state hospital for the insane and an order was made by the Justice of the Peace committing them to such hospital.

Neighbors had continuously complained that they were in fear of these sisters by reason of their threats. In one instance, to throw vitriol upon an old lady whom they constantly assailed with abusive terms, and in another instance of threatening to chase a bull-dog after a person who happened to stop on the road in front of their house and charging that the reason he stopped was to kill their mother and attack her and her sister. At another time when a person had called at their home with reference to the establishment of a local fire department they chased this person away and one sister called to the other to go get a gun. At another time when a resident minister was about to be married, one of the sisters caused a disturbance by charging that the minister could not marry his prospective wife as he had been engaged to her and had broken the engagement.

After the sisters had been taken to the state hospital they remained patients therein for almost ten years and were finally released by a Justice of the Supreme Court under a writ of habeas corpus which had been procured in their behalf by a former attendant in the hospital. At the time of their release and on the examination before the Justice on the writ of habeas corpus, it was the opinion of the physicians at the hospital that these sisters were not cured of their mental ailment and should continue to receive institutional care. During all of the time that they were patients in the hospital their condition of mental derangement failed to improve and they almost never cooperated with the physicians or attendants at the hospital, continuously refusing to do the things that they were requested to do or to attempt to reply to the inquiries of the physicians made on numerous examinations. At all times while they were patients at the hospital they claimed that they were improperly held in custodial care. They failed to cooperate towards the relief of their condition so as to provide for their release or take other steps to determine their sanity, with one exception. After about eighteen months in the hospital a writ of habeas corpus was procured in their behalf. Upon the return of the writ they appeared before a Justice of the Supreme Court who, after observing the sisters and hearing one of them attempt to testify, appointed a physician of his own selection to visit the hospital and make a mental examination of these patients. This physician, after his examination, rendered his report to the court finding that the patients were paranoias, that they had fixed delusions and hallucinations and in his opinion should be kept in detention, not only for their own good, but also as a protection for the community. After the rendition of the report of this physician the attorney who represented these patients in the procural of this writ of habeas corpus withdrew the same and consented to its dismissal.

Thus, up to this point we have the opinion of the neighbors and people in the community, the judgment of the Overseer of the poor who made the petition, the Justice of the Peace who signed the commitment, the authorities at the hospital, the opinion of the physician appointed by the court at the time of the procural of the first writ of habeas corpus and of the attorney who represented the patients at that time.

Until the application for the second writ of habeas corpus procured by these patients, almost ten years after their original commitment, no judicial steps were taken by them to have their mental conditions inquired into by any court or physicians appointed by the court in an attempt to procure their release and discharge from the hospital. However, during this period they continuously wrote letters to various city, county and state officials complaining of their detention in the hospital and of the hospital authorities. During the first thirty days after their commitment to the hospital these patients had a right to appeal from the order of commitment, also during all their stay in the hospital they had a right to have the question of their insanity determined by a writ of habeas corpus and there is no limitation on the number of times that they could apply for writs of habeas corpus. Likewise during their entire stay they had a right to procure, if the same were justified, a certificate from the superintendent of the hospital certifying that they had recovered from their ailment and it was safe to permit them to be at large without possible injury or danger to themselves or others. They had a right, if the facts justified, to have their case determined in their favor by the State Insanity Commission. Nevertheless, from the time of the application for the first writ of habeas corpus until the time of the application for the second writ of habeas corpus, a period of about seven and a half years, they availed themselves of none of these rights and continued under the supervision and jurisdiction of the hospital as patients of the same.

At the time of their release from the hospital the orders of release provided that they be in the custody of the person who petitioned for their release (a former attendant of the hospital where they had been patients) and in the case of one of the patient's a provision was made that she should not return to the village of which she had formerly been an inhabitant.

About nine months after the discharge from the hospital these patients instituted actions against the two physicians who had made the original certificate of mental examination, demanding damages in a large sum of money. With the commencement of these suits there ensued one of the longest drawn out legal battles in which any physicians had ever been engaged.

On behalf of the defendants, attacks were made on the original complaints requiring the plaintiffs to separately state and number the causes of action which were contained therein, as the original complaints attempted to set forth at least three causes of action, (1) charging the defendants with assault, rendering them unconscious and removing them by force to the state hospital while so unconscious and without their knowledge; (2) for a conspiracy to get rid of them by forcibly taking them from their home and locking them up in a hospital for the insane, and (3) for a wrong growing out of and based upon claimed false testimony of one of the defendants at the time of the return of the second writ of habeas corpus. After argument before the court this motion was granted and the plaintiffs then served amended complaints. Attack was likewise made upon these complaints and a motion made to compel the plaintiffs to strike out from the complaints allegations which were irrelevant and immaterial and which if they had been permitted to remain in the complaints would have reacted to the detriment of and would have been prejudicial to these defendants at the time of trial. This motion was likewise, after argument before the court granted and the plaintiffs were compelled to serve second amended complaints. The answer of the defendants was served to the second amended complaints.

When the cases were finally placed upon the calendar for trial, about a year after its institution, because of the crowded conditions of the calendar, the cases did not come on for trial the first time until almost two years thereafter. A jury was empanelled and the plaintiffs made their opening statement to the court and jury. Upon the making of this statement, on behalf of the defendants, a motion was made to dismiss the complaints on the ground that the actions were barred by the statute of limitations, in that the wrong for which they were suing had been committed more than ten years prior to the commencement of the actions and that the wrong was an action for false imprisonment, which was barred by the two years statute of limitations. The trial court agreed with the argument of the defendants and dismissed the complaints. An appeal was then taken on behalf of the plaintiffs from this order of dismissal and the Appellate tribunal by a divided court reversed the judgment of dismissal and ordered a new trial.

In November of the following year, or almost four years after the commencement of the actions, the cases came on for the second trial. This trial lasted four days. At the conclusion of the trial and after about four hours' deliberation by the jury, a verdict of $10,000 was rendered in favor of each of the plaintiffs. Upon the rendition of the verdict, a motion was made on behalf of the defendants to set aside these verdicts, which motion was granted.

In preparation for the trial of these cases a voluminous case book and hospital record of the plaintiffs had to be examined and analyzed. Numerous witnesses, residents of the community had been interviewed and their statements procured. Arrangements had to be made for the appearance of these persons as witnesses upon the trial. The trial of these actions was held in a county somewhat distant from that in which the plaintiffs had originally resided. Physicians who during the stay of the plaintiffs in the hospital were attendants therein, had left that particular hospital and were scattered in various parts of the state and also outside of the state, and many of them were brought hundreds of miles to testify in behalf of the defendants as to their observation and treatment of the plaintiffs while patients in the hospital. A large number of witnesses, residents of the village in which the plaintiffs had lived, had to be daily transported by bus from their place of residence to the court.

About six months later the cases came on for the third trial. At this time the trial lasted five days and at its conclusion the jury disagreed. The various persons who had been witnesses at the preceding trial were likewise witnesses at this trial and had to be brought from great distances to the place of trial. The plaintiffs were not discouraged and were still pressing this litigation and even this third trial did not conclude the cases, for five months thereafter the cases came on for trial for the fourth time. After a five-day trial the jury, after an impassioned plea by their attorney to give them vindication and to render a verdict in their favor, if it was only for one dollar, found in favor of the plaintiffs for the sum asked for by their attorney, to wit, one dollar.

At this point one would suppose this long drawn out legal battle had reached its final termination. Such, however, was not the case. Fifty-nine days after the rendition of the one dollar verdict in favor of the plaintiffs, the presiding Justice set the verdicts aside. Here then after four trials it seemed that all the work done in behalf of the defendants—elderly physicians—might be in vain. These four trials had been a tremendous tax upon everyone. The preparation alone represented a herculean task. It was a great tax upon these elderly physicians, only one of whom was able to attend the trial. It was a tax upon the counsel, it was a tax upon the witnesses, it was a tax upon the court and juries, giving as it did fifteen days to the consideration of these cases.

The question now arose as to what course to follow. It was decided to take an appeal from the order of the trial judge setting aside the one dollar verdicts. In the preparation of the record on appeal a stenographic transcript of the testimony of the witnesses had to be procured and a printed record, consisting of the pleadings in the case and the testimony of all the witnesses, the summation of counsel to the juries, the charge of the court to the jury had to be prepared and printed, making a printed volume of over seven hundred pages. In support of the argument on behalf of the defendants an analysis of the record on appeal was made and a printed brief prepared in their behalf. About fifteen months after the one dollar verdicts had been set aside, the cases were argued before the Appellate Court and after deliberation by that court, by an unanimous decision, it reversed the order setting aside the verdicts and reinstated the same. The learned Appellate Court decided that irrespective of any possible irregularity in the certificate of lunacy the plaintiffs were in fact insane and subjects for custodial care in a state institution for the mentally afflicted. That they had, therefore, suffered only nominal damages and that the one dollar verdicts should stand.

The time has now expired when an application could be made on behalf of the plaintiffs to appeal to the Court of Appeals from the decision of the Appellate Division and therefore, the last chapter in this long, tiring and difficult litigation has been written.

No case more eloquently illustrates the difficulties and the hazards of the practice of medicine. No case shows more clearly for how long a time members of the medical profession may be forced to continue to defend the procedures they have followed. When the cases came on for trial the Overseer of the poor who made the petition, the Justice of the Peace who had signed the order of commitment and many other witnesses, residents of the village in which the plaintiffs had resided, who for years had known and observed the patients, had died. These things, in addition to the inherent difficulties of the cases added greatly to the burdens of the defense. Had any substantial verdict been secured against these physicians it might have been such as to dissipate their earnings of a lifetime. Fortunately, this did not happen.

These cases which like that of *Jarndyce vs. Jarndyce* in Dickens' "Bleak House," gave every evidence of going on and on without any termination, have now been brought to a final and happy conclusion.

CLAIMED NEGLIGENCE IN OPERATION RESULTING IN BLOOD POISONING AND PLEURISY

The patient in her complaint charged that believing she was suffering from an intestinal disorder, she consulted the defendant with reference to the treatment of her condition. That on the 19th of January, as such physician he undertook to perform an operation upon her, which was negligently and carelessly done, thereafter she suffered from the effects of blood poisoning. It was charged that the defendant in the performance of his operation used unsanitary, improper and inadequate instruments. It was further charged that the defendant physician, when the plaintiff began to suffer from the effects of the blood poisoning wrongfully diagnosed the patient's condition and treated her as if she were suffering from appendicitis and that he had made a wrong diagnosis in that she was not suffering from appendicitis, but from blood poisoning. That by reason of the defendant's improper treatment the patient developed pleurisy and on the 6th day of February it was necessary for her to enter a hospital where she underwent an operation for the blood poisoning and pleurisy. That she remained at said hospital until the 9th day of March. That while in the hospital the plaintiff's condition was properly diagnosed as blood poisoning and pleurisy and that the operation performed upon her was done to offset the defendant's negligence and carelessness. That by reason of the defendant's negligence and carelessness, she suffered bodily and mental injuries, she became greatly debilitated and remained such for a long period of time; that her general health had become so impaired that she had lost the ability to bear children.

This patient had called on the defendant in January complaining of stomach trouble and pains in the back. Upon examination the physician found that she was suffering from an inflammatory condition of the cervix. At that time he treated the infected area with an application of ichthyol and inserted a piece of cotton saturated with ichthyol. On the following day the patient returned and the cotton was removed. Nothing was heard from the patient for several days, when the physician was summoned to the patient's house. Upon examination he found the patient suffering from pleurisy, at which time he properly prescribed for her condition. When he called again on the patient two days later he found her condition improved and instructed her to continue taking the medicines that he had previously prescribed.

The physician denies that he had advised the patient that she had appendicitis or that he had ever operated upon her, and claims that the only treatment he had ever given her and the only medicaments which he had used were those as previously stated.

About six months after the patient had been attended by the defendant a physical examination was made of her. At this time she gave a history that upon entry at the hospital a diagnosis was made of an abscess behind the uterus, and she had a spontaneous miscarriage at three months while in the hospital. The plaintiff told the examining physician that she had gone to the defendant doctor for a supposed pregnancy as she had not had a period for six weeks. That he had examined her and used some instruments. That she had been in bed ever since and was still under the doctor's care. That she had no chills or fever, but feels weak and does no work; that she was treated by the defendant doctor four or five times at home and she then went to the hospital where she remained for six weeks and since then has been home in bed. The examining physician upon his examination found the patient looking very well and showing no evidence of what she claims to have gone through, except some slight thickening in the posterior sac of the vagina where the doctor who operated upon her claimed that he opened an abscess. The examining physician further found that the patient's condition at the time of examination was so good that she need not be in bed and should be up and doing her usual work; that she was neither anemic nor septic and exaggerates her present disability.

When the action came on for trial the plaintiff failed to prosecute the same and a dismissal was had.

NEWS NOTES

FEEBLE MINDEDNESS

The National Committee on Mental Hygiene issued a pamphlet in which misconceptions regarding insanity were printed in parallel columns beside the modern ideas of physicians on those subjects. This was reprinted on page 1006 of the December 1926 issue of this JOURNAL.

The National Committee has recently published a similar pamphlet regarding feeblemindedness, or mental deficiency, as it is more properly called. The following ten misconceptions are listed, and after each one the modern attitude of the medical profession is given:

1. "That feeblemindedness is a mental disease."

"Feeblemindedness is an arrest of intellectual growth in the early development life of the individual."

2. "That feeblemindedness can be cured like mental disease."

"True feeblemindedness is an organic condition involving a lack of development of brain tissue and cannot be cured in a medical sense."

3. "That feeblemindedness is always hereditary."

"Many of the feebleminded, estimated as approximately half, owe their mental defect to accidental causes, such as pre-natal neglect, injuries at birth, and early childhood diseases like scarlet fever, infantile paralysis and 'sleeping sickness'."

4. "That sterilization is the best solution of the problem of the feebleminded."

"Sterilization will not solve the problem because feeblemindedness is not always due to a defective germ plasm, and because in our present state of knowledge about the laws of heredity we cannot say how much or when feeblemindedness is transmissible."

5. "That the feebleminded are all a menace to society."

"The feebleminded are not necessarily delinquent or criminally-minded *per se,* and that their occasional danger to society depends upon other factors besides their mental defect. There are good feebleminded as well as bad feebleminded."

6. "That segregation in institutions is the only way to control the feebleminded."

"Segregation is necessary only for the low grades of feebleminded and for the relatively few defective delinquents, or the incorrigibly bad feebleminded, for whom little can be done in school or at home."

7. "That the feebleminded are a total loss to society."

"Most of the feebleminded, if taken early, can be trained to do productive manual work, and with understanding, guidance, and supervision can lead happy, useful, and social lives."

8. "That the feebleminded are not teachable at school."

"Their intellectual capacities are too limited to profit from the ordinary school curriculum, but they can be taught a trade in the special classes which are being provided in increasing numbers in the public schools."

9. "That the feebleminded are all equally mentally defective."

"There is a gradual curve from the extreme condition of the idiot, whose 'mental age' is one or two years, to the moron and borderline cases, in which the 'mental age' ranges from eight years to normal."

10. "That the feeblminded are readily recognizable."

"The diagnosis of feeblemindedness is frequently a difficult matter, even when the intelligence test is administered by an expert psychologist, and that the psychiatrist must often be called in to eliminate various causes of remedial mental backwardness before a condition of true mental defect is established."

THE GENEVA ACADEMY OF MEDICINE

The physicians of Geneva have organized an Academy of Medicine with fifty-seven charter members. The booklet of the Academy states:

"At the April, 1925, meeting of the staff of the Geneva General Hospital, held at the Hotel Seneca, it was unanimously voted to organize a Geneva Academy of Medicine, and thereby transfer the scientific sessions of the staff over to the new organization. This would thereby eliminate all business matters pertaining to the staff from coming up at the scientific sessions. It would, in other words, be an entirely separate organization.

"The staff adjourned in order to hold a preliminary meeting of the newly formed Academy of Medicine. At this meeting, which was discussed by every member present, several ideas were suggested, which were of important value to the committee on organization. The chair (Dr. Knickerbocker) then appointed Dr. Crance chairman of the committee on organization, who in turn appointed Drs. John Shipman and John Robson to make up the committee.

"This committee met at the office of the chairman on the evening of April 21, 1925, and laid out several ideas and plans to be adopted at the next official meeting.

"Practically every member has expressed himself as to the splendid character of the meetings both as to their scientific value, as well as their splendid social spirit. The buffet luncheons following the scientific programs add to this side of the meetings to a great extent.

"It should be clearly understood that the Geneva Academy of Medicine proposes to grow and become one of the large clinical societies in this section of the state. It is steadily growing, and we wish to extend the glad hand of welcome to all physicians who are not already members to join now."

The society meets monthly and has an annual dinner meeting. Physicians in the vicinity of Geneva are eligible for membership.

QUEENS COUNTY MEDICAL SOCIETY

The regular meeting of the Medical Society of the County of Queens was held at the Jamaica Lodge, I. O. O. F., No. 247, 159-29 90th Avenue, on March 29th, 1927. President, Joseph S. Thomas, in the chair.

The minutes of the February meeting, as published in the Bulletin, were approved.

The following candidates having been approved by the Board of Censors were, on motion, duly elected by ballot cast by the Secretary: Leo Batell, M.D., 7136 Loubert Street, Forest Hills, L. I.; Harry Vincent Cogney, M. D., 3243 81st Street, Jackson Heights, L. I.; Charles A. Lust, M.D, 610 Thirteenth Street, College Point L. I.; Walter J. Lynch, M.D., 188-30 Central Avenue, St. Albans, L. I.

Dr. F. G. Riley reported for the Committee on Graduate Medical Education.

President Thomas announced the death of Dr. Charles H. Peck. The matter of suitable resolutions was referred to the Comitia Minora.

Dr. D. E. McMahon reported for the Legislative Committee.

The following Scientific Program was presented:

1. Paper—General Management of Uterine Hemorrhage—By James A. Corscaden, M.D., Gynecologist, Sloane Maternity and Presbyterian Hospitals and Vanderbilt Clinic.

The speaker said in part that bleeding from the uterus presents difficulties of diagnosis and management unknown in other organs due to the fact that the endometrium in humans and in anthropoid apes discharges blood when it shrinks from its greatly hyperplastic state, necessary for the lodgment and nourishment of a fertilized ovum. When a woman presents a history of abnormal bleeding, one must form a conception of the fundamental process underlying the symptom. From the standpoint of therapy, it is convenient to classify this bleeding under three headings:

First. Functional, meaning a variation of the mechanism which starts and stops and controls the regular twenty-eight day flow.

Second. Pregnancy, where the bleeding is caused in many ways, but where our whole object is the preservation and ultimate delivery of a child. Here the bleeding is incidental except occasionally when it is profuse.

Third. Certain anatomical changes in the tissue result in bleeding (trauma, active and passive congestion, ulceration, diseases of the blood and blood vessels). Here again the bleeding is incidental. The disease is the object of our treatment.

The management of pregnancy will not be discussed. Functional bleeding should be approached through the individual and not as a uterine problem, whether by general health, endocrines, or by some of the newer vitamines, such as that found in liver. If rational therapy fails, it is easy to terminate menstruation by excising the endometrium—which is fundamentally our purpose when we do hysterectomy, or by destroying the ovaries either by excision or by the selective action of X-ray or radium. The choice of method will depend upon expediency, age of the patient, or other similar factor. The principle will remain the same—to destroy menstruation you must either remove the endometrium or the ovary.

The treatment of bleeding which is incidental to an important disease will come secondary to the treatment of the disease itself, except in the case of fibromyoma of the uterus. Here one must decide whether he is treating the tumor or whether he is treating the bleeding. If the tumor be the fundamental consideration, hysterectomy would seem to be the method of choice. If bleeding be the major consideration, the termination of it by an artificial menopause would be the method of choice.

Discussion by Drs. H. P. Mencken, E. A. Flemming, A. L. Voltz.

2. Talk—Factors of Significance in Maternal Morbidity and Mortality, by E. A. Flemming, M.D.

Discussion by Dr. Thurston Welton.

Attendance, 57.

E. E. Smith, *Secretary.*

A COUNTY HEALTH DEPARTMENT

The Suffolk County Medical Society is actively promoting the establishment of a County Health Department. The April issue of its Monthly News Letter explains the proposed department in the following article which will apply equally well to any other rural county of New York State.—Editor's note.

The proposed County Health Department is to consist of:

1. A Board of Health.
2. A Health Officer.
3. An office and a clerk.
4. Field workers,—two or three public health nurses.

The present plan of a board of health and health officer in each town and village, 23 in number, is to be kept, but supplemented by the County Department.

The kinds of health work to be done:

1. Protective, in the presence of actual danger, will continue to be done by the present system.
2. Preventive, preparing for trouble ahead of its appearance will be done by the County Health Department.

Present System Is Protective Only

Only two kinds of work are done under the present system:

1. Sanitation—Sewage, water supplies, garbage, pigpens, noises, etc.
2. Contagious Diseases—Reporting, quarantine, etc.

The County Health Department will amplify and supplement the present protective system with more efficient *Preventive* work.

An example of the kind of work to be done by the County is the tuberculosis work, which is now unified and effective. The plan adopted in tuberculosis work will be extended to other phases of public health work.

The kind of work to be done by the County Department of Health may be grouped under six activities:

First Activity — Consultations with Local Health Officers

The county health officer will be a full-time specialist, available for the local health officers to consult, especially when their problems involve adjoining districts over which they have no jurisdiction. The State has supplied some consultation service through its district State health officers, but the work is so great that a consultant is needed in every county.

Present health officers to consult him in:

(a) Contagious diseases,—their recognition and management.

(b) Water Supplies,—Surveys of water sheds; interpretation of analyses; co-ordination of control when a company serves two or more villages and towns.

(c) Milk Supplies,—Bootlegging in milk; selling milk in several health districts; getting analyses made.

(d) All other problems, child welfare, health education, etc.

Second Activity—Statistics

No one now knows much about the amount of health work, done in the county, except that in tuberculosis. Secure figures regarding all kinds of work, contagious diseases, milk, water analyses, laboratories, etc.

Third Activity—Laboratories

There is a great need for them to be located in hospitals.

There is difficulty of obtaining service by the state.

The state still to be available in emergencies, and the more complicated matters, but local service is needed in such matters as milk analyses.

No village or town can afford it, but the county can readily conduct it.

Fourth Activity—Nursing

Two or three nurses to be a field force available to special investigations. Example, a scarlet fever outbreak. Seek out the cases.

Tuberculosis, more nurses are needed in that field.

Fifth Activity—Health Work Among Children

Advise and assist the local school medical inspectors.

Get records of the work.

Put the work on a higher plane.

Get results.

Sixth Activity — Public Health Education

Newspaper articles.

Lectures.

Personal conversations.

All for the purpose of explaining the health conditions in the county and the means of making them better.

The Suffolk County Medical Society is engaged in that work, and publishes a monthly News Letter.

In conclusion, the County Health Department will do for Suffolk County what the Department does for a city of 100,000 to 200,000 population; such as Albany and Utica.

It is impossible to extend the present system.

Introduce the county system to bridge the gap between the towns and villages on the one hand and the state on the other.

The cost:

The estimated annual cost of an efficient County Health Department is $20,000. The present system of town and village health boards is costing over $20,000 annually; and to bring their work up to an efficient standard will cost much more than an additional $20,000, if indeed sufficient cooperation could be obtained to make their work at all efficient.

The state law provides that the state shall bear one half of the expense of a County Health Department. The cost of Suffolk County may therefore be estimated to be $10,000 annually.

The Board of Supervisors is the authority that is empowered to establish a County Health Department.

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on March 16, 1927, was called to order at 9 P. M., the President, Dr. Friedman, in the Chair.

The following physicians were elected members: Drs. Paul H. Bernstein, Edwin B. Bilchick, Harold Fay, William V. Gilbert, Frank Ward Goeller, Marie Pichel Levinson, Sidney B. Rooff, Alexander Schiff, Kathryn Wheeler Small.

A report was received from Dr. Weitzner, Chairman of the Social Committee, regarding the Beefsteak Dinner held on February 28th, and the next step in the program which is to introduce a group of outdoor sports.

Dr. Boas, Chairman of the Committee on Public Health and Medical Education, presented a report announcing doctors who have agreed to speak before lay audiences and calling for further applications. The Committee also reported regarding the folder being prepared by The New York Tuberculosis and Health Association, and the question of giving radio health talks as well as the advisability of circularizing periodic health examination folders through the schools. The President urged the members that as soon as they are informed that the folders are ready for distribution they send either the names of their clientele to the Bronx Committee of the New York Tuberculosis Health Association or send it word that they are ready to receive the folders so that they may address them to their patients.

It was moved and carried that in connection with the imprint of the New York Tuberculosis Health Association, there be a statement in the folder that it has been approved by the Bronx County Medical Society.

Dr. Lukin, for the Committee on Medical Economics, reported progress.

Dr. Cunniffe, for the Committee on Legislature, reported regarding various bills that have been introduced in the legislature affecting the medical profession, including bills regarding chiropractors and amendments to the Workmen's Compensation Law. Assemblyman Berg has introduced a bill which would grant to the veterans of the last war the right to practice physiotherapy under the direction of a physician, these men being graduates of one of the Government schools which would give them a very good training.

Dr. Cunniffe also reported regarding a vacancy on the Board of Regents and expressed the opinion that at least one member of the Board should be a physician and recommended that the Society should urge the Chairman of the State Committee on Legislation to impress upon the legislature the demand of the medical profession to have a physician on the Board of Regents.

It was moved and carried that the report be approved and that the secretary be instructed to write to the Chairman of the State Committee on Legislation as recommended in the report.

Dr. Goldberger, for the Committee on Hospitals, reported progress.

Dr. Jacobs, for the Building Committee, reported progress and stated that the Committee would be in a position to report definitely at the next meeting.

Dr. Henry Roth, for the Relief Committee, reported that the Committee is trying to gain information from other Societies and is not quite ready to report definitely now.

In regard to the "Physician's Questionnaire" from the office of the Federal Prohibition Administrator, which was referred to the Counsel of the State Society, Mr. Stryker advised "that there is nothing compulsory about the filling in, executing, or returning of this form. The public administrator has taken this method of determining who are the persons lawfully and legally entitled to receive liquor permits and to aid the prohibition administrator in the proper functioning of the law and prevent the prescription permits from falling into the hands of persons not lawfully entitled thereto."

The Scientific Program then proceeded as follows:

Papers

1. "Primary Streptococcus Peritonitis in Children," Joseph Schwartz.

2. "The Significance of Abdominal Rigidity in Children," William Klein.

3. "The Diagnosis and Treatment of Meningitis in Children," Linnaeus E. La Fetra.

The papers were discussed by Drs. Henry Roth, Sidney V. Haas, Charles Herrman, Joseph Popper, William L. Rost and Abraham Lobell.

I. J. Landsman, M.D., *Secretary.*

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on April 20, 1927, was called to order at 9 P. M., the President, Dr. Friedman, in the chair.

Election of candidates being in order, it was moved and carried that the secretary be instructed to cast one ballot for the following candidates for membership:

Augustine J. Annunziata, Samuel Austrian, Harold Burg, William Fraden, Henry L. Greene, Henry Harris, Bernard Kurz, James A. Lynch, David Newman, Samuel Strumwasser.

Reports of committees being in order, the Committee on Legislation reported that none of the chiropractic bills introduced at the last session of the state legislature passed and that all amendments to the workmen's compensation failed of passage.

The Committee on Public Health and Medical Education reported that it is working on the folder being prepared in conjunction with the New York Tuberculosis and Health Association.

Dr. Lukin, for the Committee on Medical Economics, reported on the subject of "Open Hospitals," and urged that the Bronx County Medical Society hold a special meeting on open hospitals in the near future, similar to meetings being held by other medical societies.

It was moved and carried that we hold a special meeting in the near future to consider the subject of "Open Hospitals."

Dr. Weitzner, for the Social Committee, reported with special reference to the organizing of golf and swimming groups.

Dr. Gitlow, for the Relief Committee, reported regarding the establishment of a relief fund for our members by the society. After discussion, it was moved and carried that the report of the Relief Fund Committee be referred to the Comitia Minora for further study and final report to the society.

Dr. Podvin, for the Bulletin Committee, asked for the cooperation of the general membership in the preparation of articles for The Bulletin.

The secretary read a communication from the Department of Health on the subject of National Health Week for Children to be celebrated in the City of New York from May 1st to May 7th, and stating that it is believed that the value of diphtheria prevention should be the outstanding matter of interest in all activities.

The scientific program then proceeded as follows:

Papers:

1. "Factors in Nutrition," Joseph H. Gettinger.
2. "The Practical Treatment of Toxemias of Pregnancy," George W. Kosmak.

It was moved and carried that a vote of thanks be extended to the readers of the papers of the evening.

Respectfully submitted,
I. J. Landsman, M.D.,
Secretary.

RICHMOND COUNTY MEDICAL SOCIETY

The Medical Society of the County of Richmond met on April 22nd and discussed the recent dicision of City Magistrate Bridges which was fully discussed by Mr. Lloyd Stryker in the Legal Department on page 498 in the May first issue of this Journal. When a case against a chiropractor for illegally practising medicine was tried, Magistrate Bridges dismissed the case with the following decision:

"When a person, claiming to be suffering pain, seeks out another and asks for treatment for that condition, well knowing that such person does not claim to be a regularly licensed physician, as in this case, and such person does treat said applicant by manipulating or rubbing, I can see no violation of the Statute, nor do I believe the legislature intended it to be so regarded. Otherwise, every masseur and chiropractor (so called) in the state would be put out of business.

There was, in this case, no illegal treatment or prescription.

Complaint dismissed.—Defendant discharged."

The Richmond County Medical Society adopted a resolution setting forth the facts which have already been told by Mr. Stryker and ended with the following resolution.

"THEREFORE BE IT RESOLVED, That it is the sense of the Medical Society of the County of Richmond, interested as it is in the safeguarding of the health of the people of its community, and in the enforcement of the public health laws with reference to the unauthorized practice of medicine, that the decision of Magistrate Bridges is viewed with regret."

William R. Janeway, M.D., *President,*
West New Brighton, Staten Island.
Charles Rieger, M.D., *Secretary.*

THE DAILY PRESS

LEPROSY ERADICATION

The daily papers have recently carried accounts of a campaign to raise $2,000,000 to assist the Philippine Government to eradicate leprosy from the Islands. Governor General Wood is a physician, and therefore has a first-hand appreciation of the importance of the study of leprosy and the eradication of the disease.

The *New York Tribune* of April 12 contains a personal letter from the Honorable Henry L. Stimson in which he says:

"I have had the opportunity of knowing intimately the plans that have been carried out under Governor Wood's direction at Culion, the greatest leprosarium in the world, and of the needs with which he is confronted at the present time. It is quite evident that if adequate funds can be given to this work we shall see in the Philippines in the combating of leprosy a repetition of what we saw in Cuba with yellow fever. Leprosy can be cured and is being cured for they have already dismissed more than 1,000 inmates at Culion."

"One of America's best leprologists and pathologists is stationed at Culion, Dr. H. W. Wade. The fight that he is waging in co-operation with Governor Wood and other American and Philippine doctors is of world-wide importance and deserves the fullest support of generous-minded Americans."

The *New York Herald-Tribune* of April 11 says editorially:

"When the leper colony of Culion was established twenty years ago there was little hope of curing the disease, but the segregation of many of the afflicted in surroundings that mitigated their distress was a forward step. Now, however, the treatment of leprosy has so far advanced that 50 per cent of the Culion cases show 'improvement,' and 10 per cent of the patients in whom the disease is not of many years' duration are in the 'curable' class. One thousand lepers have been discharged from the colony, their malady overcome. The achievement thus far in the Philippines, forwarded by the unremitting zeal of General Wood, gives promise that leprosy can be eradicated from the islands if the facilities for combating the disease known to modern medicine are fully provided.

The Culion leper colony is located on an island about two hundred miles south of Manila. It receives about one third of the total appropriations for public health made by the Philippine Government.

The subject of leprosy was discussed editorially on page 940 of the November 15, 1926, issue of this JOURNAL in which comments were made on the *Indian Medical Record* for September, 1926, which was a special leprosy number.

THE CRIMINAL FACE

There is a well-known type of face which a cartoonist draws when he wishes to indicate a criminal, but those who work in prisons seldom see that or any other predominant type. If criminality expresses itself, in outward forms, the identification and apprehension of criminals would be easy.

However, any distinguishing mark of prominence is a grave burden to a criminal, especially when he seeks honest work after his release from prison. The daily papers have recently commented freely on the application of plastic surgery to the faces of convicts in the California State Prison at San Quentin. The *New York Sun* of April 7, says:

"Plastic surgery has remodeled the ugly countenance of Jim Daly, fifty-five-year-old convict, who is about to be discharged fro San Quentin. Believing he was about to be turned into a world which should slam the door of success in his villaneous looking face, Daly requested Dr. Leo Stanley, prison physician, to perform the operation.

"Dr. Stanley, who had studied plastic surgery, consented. He pared Daly's cauliflower ear down to normal size and used the pieces to fill a gap in his nose.

"An iron mask could have been no more effective in concealing his identity. When he told his fellow prisoners, those who felt the same affliction also applied to Dr. Stanley for help. The physician said twenty-two others have asked for operations, some of which already have been performed.

"The prisoners insist that with facial alterations they would be free to really become "new men" to the outside world; that they could pass by the 'old gang' and the ever suspicious detective without giving away their identity.

"Dr. Stanley said he would comply with all requests thus far received."

The medical profession approves Dr. Stanley's attitude.

MAIL SOLICITATIONS FOR FUNDS

Mail orders have invaded even the field of solicitation of funds for charity. A doctor receives a brilliant necktie by mail, to be worn three days and if satisfactory, the price, one dollar, is to be sent; otherwise the tie is to be returned at the sender's expense. Doctors and others follow the easiest course and remit their dollar bills. If a considerable proportion of such mail went into the waste basket, the practice would die a natural death.

Philanthropic organizations send out beautiful subscription books, each one numbered and accompanied with a stamped and addressed envelope for return presumably with a dollar bill or a larger check. If a majority of these, too, went into the waste basket, doctors would soon escape the annoyance of being solicited for funds for objects in which their interest is only impersonal.

Mail solicitations have been taken up by thieves, as is shown by the following editorial note from the New York *Times* of April first:

"A flagrant example of fraudulent use of funds solicited in the name of charity has just come to light. Letters from the Crippled Children's Relief Association, Inc., enclosing three initialed handkerchiefs, price one dollar, were sent out to 'prospects.' Kind-hearted persons sent back five, ten and sometimes a hundred dollars, and usually returned the handkerchiefs as well. It appears to have been one or two individuals who got up the scheme for getting an easy living from the charitably inclined. They made no pretense of maintaining an institution. In a Lexington Avenue loft they had a desk and chair, sufficient paraphernalia for mulcting the guileless.

"The plan of the reputable charities of this city—to compel all such organizations to file a report of their collections and disbursements—would automatically rule out illegitimate concerns. Newly formed societies would also be forbidden to operate until their credentials were recorded. Fraud in charity should be made more difficult."

The waste basket is a safe and efficient depository of begging letters and merchandise received by mail from unfamiliar parties.

A RADIO CODE IN MEDICINE

Medical emergencies at sea occur with such frequency that the American Code Company, publishers of telegraphic and cable codes, is planning a code to facilitate the transmission of messages relating to the diagnosis and treatment of human ailments. The New York *Times* of March 31 says:

"The company had been working on the idea in conjunction with well-known New York medical men and steamship companies for the past six months. The plan has been approved in principle by all who have discussed it, and the company hopes to get the cooperation of the medical associations in working out the code system. The outline of a practical book to be used in the treatment of diseases in accordance with instructions received by code has been prepared and is meeting with unqualified approval.

"Radio medical service was first established by the Seamen's Church Institute. Private and Government radio and telegraph stations have transmitted such messages to any ship without charge."

PREVENTIVE CLINICS

The saving to hospitals by the establishment of preventive clinics has been discussed extensively from the viewpoint of the patient and charity. The New York *Times* of April 4 discusses the subject from the standpoint of hospital administration:

"The rising cost of hospital administration has brought about to some degree the establishment of clinics and out-patient departments. They treat serious diseases in its early stages, check minor diseases and defects and do admirable work as centres of prevention. A large part of this work has been made possible by the grant of funds from the Rockefeller Foundation.

"With the cost of hospital care still going up, it is apparent that clinical preventive work is an enormous economy, both for the patient who is able to pay and for the community which takes care of those who cannot pay. The difference in the cost of treatment is striking. Without physicians' fees, in both cases, hospital service costs at least $5 a day; high-grade out-patient care costs about $5 a month. Subsequent cost in suffering and money, when scarcity of clinics prevents cheap and early diagnosis, is incalculable."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

Medical Organization and Medical Biography of Seneca County, New York. Compiled by Lester W. Bellows, M.D. Octavo of 429 pages. West Henrietta, New York, Manzler Publishing Corporation, 1926. Cloth, $4.50.

A Manual in Preliminary Dietetics. By Maude A. Perry, B. Sc. 16mo of 146 pages. St. Louis, The C. V. Mosby Company, 1926. Cloth, $1.25.

Hospital Housekeeping and Sanitation. By Nora P. Hurst, R.N. 16mo of 155 pages. St. Louis, The C. V. Mosby Company, 1926. Cloth, $1.25.

A Primer for Diabetic Patients. A Brief Outline of the Treatment of Diabetes with Diet and Insulin, Including Directions and Charts for the Use of Physicians and Planning Diet Prescriptions. By Russell M. Wilder, M.D. 3rd Edition, reset. 12mo of 134 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $1.50.

This Business of Operations. By James Radley. Foreword by J. M. Withrow, M.D. 16mo of 96 pages. Cincinnati, The Digest Publishing Company, 1927.

Dental Materia Medica and Therapeutics. A Textbook for Students and Practitioners. By Hermann Prinz, A.M., D.D.S., M.D. 6th Edition, enlarged and revised. Octavo of 632 pages, illustrated. St. Louis, The C. V. Mosby Company, 1926. Cloth, $6.00.

A Textbook of Exodontia. Exodontia, Oral Surgery and Anesthesia. By Leo Winter, D.D.S. Octavo of 364 pages, with 329 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $7.50.

The Elements of Medical Treatment. By Robert Hutchinson, M. D. 12mo of 163 pages. New York, William Wood and Company, 1926. Cloth, $3.00.

High Blood Pressure: Its Variations and Control. A Manual for Practitioners. By J. F. Halls Dally, M.A., M.D. 2nd Edition. Octavo of 196 pages, illustrated. New York, William Wood and Company, 1926. Cloth, $4.00.

The Natural Processes of Healing in Pulmonary Tuberculosis. By Marc Jaquerod, M.D. Translated by J. Denny Sinclair, M.B., Ch.B. Octavo of 107 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $3.00.

The Conquest of Disease. By Thurman B. Rice, A.M., M.D. Octavo of 363 pages, illustrated. New York, The Macmillan Company, 1927. Cloth, $4.50.

Surgical Clinics of North America. Vol. 6, No. 6. December, 1926. (New Jersey Number.) Index Number. Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Medical Clinics of North America. Vol. 10, No. 4. January, 1927. (New York Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London Per Clinic Year (6 issues.) Cloth, $16.00 net; paper, $12.00 net.

Symptom Diagnosis: Regional and General. By Wilfred M. Barton, A.M., M.D., and Wallace M. Yater, A.B., M.D. Octavo of 851 pages. New York and London, D. Appleton and Company, 1927. Cloth, $10.00.

The Practical Medicine Series. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Series, 1926. Chicago, The Year Book Publishers, 1926. General Surgery. Edited by Evarts A. Graham, A.B., M.D. 12mo of 726 pages, illustrated. Cloth, $3.00. Price of the series of eight volumes, $15.00.

Principles of Physical Chemistry for Medical Students. By Phyllis M. Tookey Kerridge, M.Sc. With Introduction by Prof. A. V. Hill, M.A., F.R.S. 12mo of 134 pages, illustrated. London and New York, Oxford University Press, [1927]. Cloth, $1.75. (Oxford Medical Publications.)

Manual of Operative Surgery. By Sir Holbert J. Waring, M.S., M.B. Sixth Edition. 12mo of 868 pages, illustrated. London and New York, Oxford University Press, [1927]. Cloth, $5.25. (Oxford Medical Publications.)

Manual of Medicine. By A. S. Woodwark, C.M.G., Third Edition. 12mo of 523 pages. London and New York, Oxford University Press, [1927]. Cloth, $4.75. (Oxford Medical Publications.)

Diseases of the Heart. Their Diagnosis, Prognosis, and Treatment by Modern Methods. By Frederick W. Price, M.D. Second Edition. Octavo of 534 pages, illustrated. London and New York, Oxford University Press, [1927]. Cloth, $6.20. (Oxford Medical Publications.)

The Enlarged Prostrate. By Kenneth M. Walker, F.R.C.S. Octavo of 193 pages, illustrated. London and New York, Oxford University Press, [1926]. Cloth, $4.00. (Oxford Medical Publications.)

Some German Spas. A Holiday Record. By S. L. Bensusan. [Second Edition.] Octavo of 172 pages, illustrated. London, Noel Douglas, [1926.] (Copies can be obtained for $1.50 by applying to the German Health Resorts at 630 Fifth Avenue, New York City.)

Deutscher Bäderkalender. Herausgegeben vom Allgemeinen Deutschen Bäderverband E. V. Redigiert von Prof. Dr. Weissbein. Octavo of 375 pages, illustrated. Berlin, Bäder- und Verkehrs-Verlag G.m.b.H., 1926. (Copy free to physicians upon application to German Health Resorts, 630 Fifth Avenue, New York City. Cost to others $1.00.)

Early Days of the Presbyterian Hospital in the City of New York. By David Bryson Delavan, M.D. Octavo of 191 pages, with 34 illustrations. Published privately, 1926. [East Orange, N. J., The Abbey Printshop, Inc., 1926]. Cloth, $1.50. (Copies may be obtained by applying to the Joint Administrative Board, 17 East 42nd Street or to the Presbyterian Hospital in the City of New York, 41 East 70th Street.)

BOOK REVIEWS

THE SURGERY OF GASTRO-DUODENAL ULCERATION. By CHARLES A. PANNETT, B.Sc., M.D. Octavo of 154 pages, with illustrations. London and New York, Oxford University Press, 1926. Cloth, $3.25. (Oxford Medical Publications.)

This little book, one of the later additions to the list of monographs published by the Oxford Press, is a welcome addition to the family. These books are singularly alike in the fact that they look like primers and are found on examination to be a good deal more.

In this case the subject under consideration is covered simply and neatly. The gaps in our knowledge are indicated and temporarily filled with good shiney conjecture.

The "Principles" of our empiric surgery are once more ennunciated and the various types of partial resection of the stomach are illustrated and described. Much more elaborate discussion of this subject may readily be found but—after all is there so much to say?

J. E. JENNINGS.

BRAIN AND HEART. Lectures on Physiology. By GIULIO FANO. Translated by HELEN INGLEBY. Octavo of 142 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $2.75. (Oxford Medical Publications.)

This book is the work of a scientist who is also a philosopher and a man of letters. The author relates certain of his scientific experiences, using them as texts for large discourse. From experiments on the marsh tortoise, he learns lessons which touch on the origin and purpose of life. One-third of the book is taken up with two chapters on the so-called Living Matter. He feels the want in Darwin's theory of evolution of a determining force, and satisfies it with the assumption of a potent "Cosmic Will," of an unending purpose running through the ages, as the poet has already said. In the third and fourth chapters, on Inhibition and Will, the author shows, from experiments on the tortoise, how will is manifested by inhibitory acts. In the fifth chapter, on Excitability and Automatism, certain questions of cardiac physiology are discussed: the rhythmic action of the heart and the respiratory mechanism are accepted as due "to a nutritive cycle in the cells which perform the movement." The last chapter deals with the Relations between Excitability and Automatism Determining Cardiac Peristalsis. The reader who appreciates philosophy, as well as science, will delight in this book.

E. E. CORNWALL.

SURGERY OF CHILDHOOD. By JOHN FRASER, M.C., M.D. Two octavo volumes of 1152 pages, with illustrations. New York, William Wood and Company, 1926. Cloth, $14.00.

In his preface, the author makes some apology for the length of the production, but to the reader, the division of the work in two volumes, gives the impression of completeness with no thought of unnecessary length. When one bears in mind that the surgery of childhood must include a great part of general and special surgery, with such additional information as is necessary, in many instances, in the application of these general principles to the child, the difficulty of covering so broad a subject in a more limited space is apparent.

The author divides his work in two parts, which do not coincide with the publishers' division of the work into two volumes. Part one includes a discussion of general principles and general and localized pathology; part two being devoted to regional surgery, beginning with surgery of the head.

There is one Appendix, on the Method of Making Celluloid Splints, and a very complete and satisfactory index at the end of Volume Two.

The basis of this excellent study by Doctor Fraser is formed by the lectures and clinics delivered at the Edinburgh Royal Hospital for Sick Children, and the results are a book on the surgery of childhood in fact as well as in theory. "Surgery of Childhood" by Doctor Fraser is a desirable addition to the library of the general surgeon, but it contains, also, much that will interest and instruct the pediatrician and the general practitioner.

J. C. C.

A PRACTICE OF PHYSIOTHERAPY. By C. M. SAMPSON, M.D. Octavo of 620 pages, with 146 illustrations. St. Louis, The C. V. Mosby Company, 1926. Cloth, $10.00.

One is rather prejudiced in reviewing the work of an author when the reviewer has been in actual contact and personal touch with the work as expounded in the discussed volume.

Major Sampson, with his tremendous experience in rehabilitation work among our returned, wounded soldiers from the late Great War, is certainly an authority that one must respect. His work, or text book, touches deeply into a field in therapy that has been very much clouded and uncertain until real scientific research upon a very large number of patients has placed it in the same category as the Dispensatories of our drug therapy.

Besides having this unusual experience the author writes as he speaks in a very breezy and much understandable language. This volume, although of text book size, attracts the reader so much that one is tempted to read it through when first receiving it. It is not placed away in our bookcase to be used for reference only.

In his book, Major Sampson has rendered a real service by systematizing the material into a comprehensive explanation of the different modalities of physiotherapeutic practice. This is combined with a few chapters on clinical applications especially laying stress on Peripheral nerve injuries, Acute Gonorrhea in males, Arthritis, Locomotor Ataxia, Hay Fever and Pyorrhea Alveolaris.

In these chapters on clinical applications, if one was not familiar with the work of the author, some of the statements made would appear very radical, because they do not entirely conform with our concept of the pathological conditions that exist in these various diseases. But there are many results obtained in our armamentarium of drug therapy and surgery that do not aim for the removal of the pathology in the relief of symptoms. His attitude is at times very conservative, not claiming any cures but clinical relief in such conditions wherein, this, has not been accomplished by any other known means.

It is a very valuable and timely work which should not only be possessed by all those that are using Physiotherapy, but also by every practitioner and specialist of medicine and we feel can safely be recommended as a text book for medical students.

B. KOVEN.

FRESHMAN HYGIENE. Personal and Social Problems of the College Student. By RAYMOND C. BULL, A.B., M.D., and STANLEY THOMAS, M.S., M.A. Octavo of 288 pages, with 74 illustrations. Philadelphia and London, J. B. Lippincott Company, 1926. Cloth, $2.00.

This is one of the best books of its kind ever brought to our attention. We recommend it not only to college freshmen but to high school seniors and to that vastly larger group of boys and girls of similar ages who are found in neither group. In dealing with sex hygiene the authors are to be commended for having omitted all references to the moral side of the question and confining their attention to the physiological aspect. The chapters on alcohol and tobacco are the sanest we have ever read in a work of this character. Physicians should recommend this book to those of proper age.

E. H. M.

Defective Memory, Absentmindedness and their Treatment. By Arnold Lorand, M.D. Octavo of 340 pages. Philadelphia, F. A. Davis Company, 1926. Cloth, $3.00.

The author, who is practicing at Carlsbad, Czecho-Slovakia, has written a series of books dealing with various subjects primarily of mental hygiene nature. The latest book, Defective Memory, and Absentmindedness, deals at length with the nature of memory and its disorders, and with the treatment of the latter. After discussing the foundation of a good memory, and the recognition of pathological forgetfulness, he deals quite at length with the various causes of forgetfulness. A chapter is given to the treatment of forgetfulness. He then deals with the problem of absentmindedness. He then mentions many practical hints for assisting the memory. The treatment of ailments causing a poor memory is outlined in another chapter. There is a dissertation on the influence of the conscious and subconscious mind upon memory. To those who are interested in the subject, the book should have a great appeal. It has many practical suggestions and many valuable instructions that should be of help in dealing with defective memory.

Irving J. Sands.

The Inflammatory and Toxic Diseases of Bone. A Text-Book for Senior Students. By R. Lawford Knaggs, M.C., F.R.C.S., with numerous photomicrographs by C. H. Rodman, M.D. Octavo of 416 pages, 197 illustrations. New York, William Wood and Company, 1926. Cloth, $5.50.

This book has to do with the inflammations and toxaemias of bone—based on pathological and clinical studies. Dr. Knaggs, the author, has had the advantage of those great storehouses of pathology, the British Museums, such as the Museum of the Royal College of Surgeons, Guy's Hospital, Leeds and others, and he has drawn freely from these sources for his clinical histories and tissue. It is ridiculous to attmept to summarize a work of this character in a brief review but consideration of the chapter on acute osteomyelitis is sufficient to impress the reader with the high type of the book. The descriptions are clear and vivid, the deductions logical and, as a text for senior students, it has few equals.

The author has produced this book in the fullness of his years and the fruit is ripe and mature, a masterpiece in its particular field. May it pass through many editions and be translated into many languages.

J. C. R.

A Guide for Diabetics. By Walter R. Campbell, M.A., M.D., and Mame T. Porter, B.Sc. Octavo of 259 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $2.50.

The original work in the discovery of insulin was so thoroughly done by that group of workers in Toronto, that none of it has been proven false, and all of it has been verified. Doctor Campbell was a member of that first group, and the manual for diabetics which he has prepared is as thoroughly and sensibly worked out as was the first experimental work in insulin. He gives enough of the details that pertain to the disease, and its complications, and explains sufficiently the relation of the pancreas and other factors to diabetes. In so doing he has reserved most of his space for the discussion of foods and diets, and the apportionment of daily food allowance into meals. His rules for procedure are as simple as any which have been offered, and he has two innovations in his manual: a page out of every two in the book is plain and reserved for menus and notes, and there are a series of equivalents for substitution of single items of a menu which will greatly facilitate the changes or varying of diet which are so necessary. Nearly a half of the book is given to recipes. Such a manual is invaluable to the diabetic, and for the physician who wishes to do some really careful work, with his diabetics, no manual that has yet appeared will make it as easily possible to do so.

L. C. Johnson.

What's Best to Eat? By S. Henning Belfrage, M.D., M.R.C.S., L.R.C.P. With a Practical Supplement by Lucy H. Yates, M.C.A. Octavo of 199 pages. New York, William Wood and Company, 1926. Cloth, $3.00

This is a manual on diet, written for the British laity, with hope, on the part of the author, that the material will also be of considerable help to his confreres. Doctor Belfrage writes in good steady British style, covering the ground thoroughly, beginning with the food elements, through the main elements of diet, including the vitamines, and a discussion of the deficiency diseases. There is nothing new in his book but he does give a summary of the literature and attempts to make it palatable for the lay mind. There is a practical supplement by Lucy H. Yates, M.C.A., addressed to the layman's wife, which consists of rules for preparation of foods, and their arrangements into meals. The book is essentially British, and except for the main truths in the matter will not be particularly attractive for the American layman or his wife.

L. C. Johnson.

Our Minds and their Bodies. By John Laird. 12mo of 122 pages. London and New York, Oxford University Press, 1925. Cloth, $1.00.

In a compact volume of one hundred and twenty pages, the author, who holds the chair of regius professor of moral philosophy in the University of Aberdeen, has made a scholarly presentation of the mind and body, and the influence of one on the other. He discusses the subject from various angles. Thus the attitude of common sense as well as the evidence of science are thoroughly discussed in proving the relationship of mind and body. There is a chapter devoted to the hypotheses concerning the connection between mind and body. He also outlines the various metaphysical speculations regarding the subject, and treats of such subjects as Animism, Neutral Monoism, Philosophical Dualism, etc. To one who deals constantly with neuropsychiatric subjects, the book is interesting and instructive. One cannot but feel that the soma and psyche are in reality different phases of an entity; the soma and psyche are one. To try to separate the two, would really lead one into old and disproven realms which, from a medical viewpoint, have also been found to be impracticable.

Irving J. Sands.

The Human Body. By Marie Carmichael Stopes, Sc.D. Octavo of 268 pages, with 53 illustrations and color plates. New York and London, G. P. Putnam's Sons, 1926. Cloth, $2.50.

To anyone interested in a clear, non-technical description of the anatomy and physiology of the human body, this book will prove of value. It is a very interestingly written book, and in spite of the fact it was written as a supplement to another book, it has sufficient character to stand well alone. In fact, it is a superior book to the one it was supposed to supplement. In spite of the fact the author has set out to make for racial improvement and sex repression, she does not overdo the subject in this book. Doctors may recommend this book to persons who are interested in knowing a little about how they are built, and we think most patients will be satisfied. It would also be useful for high school teachers as supplementary reading for courses in general biology.

J. Arthur Buchanan.

Modern Clinical Syphilology. By John H. Stokes, M.D. Octavo of 1144 pages, with 885 illustrations. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $12.00.

There have been so many new remedies and new methods of applying remedies directed towards the eradication of the spirilla pallida from the human body that even among the specialists treatment is not yet standardized.

The management of syphilis is a problem which concerns every medical man almost daily. Frequently the internist, the surgeon, the obstetrician, the pediatrist, et cetera, wish to know the best methods about which to advise their patients.

This book by Dr. Stokes is the best and most modern presentation of the subject. Get it and read it no matter what your particular field of therapy is. In a book of such splendid excellence there seems hardly any reason to emphasize any portion over another, but for the surgeon we would say read it if only for the chapter on "Late Syphilis of the Skeletal System," and, to the internist the chapter on "Syphilis of the Cardiovascular System" is equally valuable. The presentation of syphilitic involvement of the nervous system is clear and full. The information is given in a way to be of definite clinical value to everyone. Again we repeat, with more enthusiasm than usual, that this a book which should be on the desk of every practitioner.

J. Sturdivant Read.

Hygeia or Disease and Evolution. By Burton Peter Thom, M.D. 16mo of 107 pages. New York, E. P. Dutton & Co., 1926. (Today and Tomorrow Series.)

This little publication is a more or less instructive book for the layman. We cannot, however, recommend very highly a contribution in which we find typhoid vaccine called antityphoid *serum* and rabies vaccine antirabic *serum;* in addition the latter according to the author is used to prevent and *cure* rabies, a disease which is recognized as hopeless once it has manifested itself.

E. H. M.

A Handbook of Renal Surgery. By F. McG. Loughnane, F.R.C.S. Octavo of 210 pages with 46 illustrations. New York, Longmans, Green & Co., 1926. Cloth, $3.75.

This little volume of about two hundred pages is somewhat in the nature of a compend and is prepared, as stated in its preface, for the student and the general practitioner. It presents in a very condensed form an outline of the present day knowledge of renal surgery and makes no pretense at covering details. It should be of value to the student preparing for examination or for the general practitioner who wishes to familiarize himself with what is being done in this branch of surgery. There are a number of very good illustrations.

N. P. R.

The Heart. By Alexander George Gibson, D.M., F.R.C.P 16mo of 108 pages, with 15 illustrations. London and New York, Oxford University Press, 1926. Cloth, $1.50. (Oxford Medical Publication.)

This interesting little book with its 108 pages of meagre dimensions, four by six and one-half inches, gives evidence on every leaf that it has not been prepared by a neophyte. Alexander Gibson's name on the title page is the answer.

The distinguished author has condensed in a remarkable way the facts and fundamentals of modern cardiology. The result is a delightful review of present day conceptions of heart function and disease. The reviewer recommends it without hesitation to students and practitioners.

A four-page bibliography of unusual discoursive character and value concludes the volume.

Frank Bethel Cross.

Principles of Diagnosis and Treatment in Heart Affections. By Sir James Mackenzie, M.D., and James Orr, M.B., Ch.B. Third Edition. Octavo of 242 pages with 35 illustrations. London and New York, Oxford University Press, 1926. Cloth, $3.50. (Oxford Medical Publications.)

The demand for a third edition of this work proves the value of the authors' presentation of the subject. Those who are not acquainted with the authors' views on the heart and its action will be more than pleased at the information and reasoning presented in this volume. It is clear, concise, accurate, rational and presents in a logical manner much concerning the heart, and the care of the heart. Those who are acquainted with Mackenzie's views on the heart will recognize in this volume the views of the author after many years of study and teaching. The book is an excellent presentation of the subject.

Henry M. Moses.

Problems of Human Reproduction. By Paul Popenoe. 12mo of 218 pages. Baltimore. The Williams & Wilkins Company, 1926. Cloth, $2.50.

This book will likely be read by a great many people approaching marriage, and the reviewer has the impression that they will search in vain for the knowledge which they so eagerly seek. The general matter in this book is about what everyone knows. There is frequent reference to the fact that the husband should know how to give his wife sexual happiness. The author fails to tell how the husband is to bring this about. The inexperienced man in sexual matters reads these books in order to learn technic, and if the author really wants to help out, he can give the technic that is most likely to help the husband to arrive at this point. If the author would read Dr. Long's book on "Sane Sex Life," he could make subsequent editions of his book of more advantage to the reader.

J. Arthur Buchanan

Hunter Tod's Diseases of the Ear. Second Edition. Revised and Largely Rewritten by George C. Cathcart, M.A., M.D. 12mo of 333 pages, with 87 illustrations. London and New York, Oxford University Press, 1926. Cloth, $3.50. (Oxford Medical Publications.)

In this second edition the revisor has entirely rewritten this well known work. The illustrations have been more than doubled. Being a hand book the material is much condensed, but each subject is well covered and brought up to date. It is a work written specially for the senior student to whom it can be highly recommended, but the general practitioner will also find it of value.

J. W. D.

Human Pathology. A Textbook. By Howard T. Karsner, M.D. With an Introduction by Simon Flexner M.D. Octavo of 980 pages, with 463 illustrations. Philadelphia and London, J. B. Lippincott Company, 1926. Cloth, $10.00.

This new book on pathology present both the general and special pathological processes to which the body is subject. The text is well arranged and presented with unusual clarity. It covers the fields of pathological anatomy, pathological histology, pathological physiology, general bacteriology, and immunology. It is profusely illustrated, affording the reader a clear conception of the structural changes that occur in the body tissues during disease. It well serves the purpose of presenting the subject in a manner that does not require any extraordinary effort of grasping its meaning. It should prove very useful to both student and practitioner of medicine.

E. H. Nidish.

OUR NEIGHBORS

THE HEALTH DEPARTMENT AND THE PRACTICING PHYSICIAN

Dr. Henry F. Vaughan, Health Commissioner of Detroit gave an address on the relation of the health department to the practicing physician before American Public Health Association in Buffalo on October 11, 1926, and illustrated it with descriptions of two contrasting methods of conducting campaigns for immunizations against diphtheria. He says:

"In one group of cities the health department has made a determined effort to reach directly as many pre-school children as possible, irrespective of the financial condition of the parent or guardian. Special clinics have been opened, literature is mailed to the mother when the child is six months old, and a nurse may visit the home urging that the child be brought to a free clinic. Field nurses stimulate the attendance of young children, and a concerted drive is made upon the children during the months preceding his admissioin to school. Unofficial agencies and the insurance companies have done masterly work in encouraging clinic attendance, distributing literature and issuing reference cards for admission to the free clinics. Such a campaign is usually accompanied by much newspaper notoriety, paid advertisements, hand bills, and posters on street cars and sign boards. Such a procedure is indispensable at times of impending epidemic.

"In other cities the health department has established a very definite ruling that no individual financially able to engage the services of a private physician will be admitted to a public clinic, even for such prophylactic service as diphtheria immunization. The general educational program is the same as in cities of the first group, except in so far as the clinics are concerned. The nurses of the health department in visiting the home, invoke the interest of the mother, painstakingly explain what toxin-antitoxin is, and wherein it differs from antitoxin, describe the Schick test, and portray the need of its application as a means of ascertaining the child's resistance to the disease. Efficient employment of the art of the crafty vendor of books, coupled with an alertness and eagerness to give prompt and sound reply to all questions, will almost invariably result in an expression of maternal interest and even enthusiasm. The mother is advised to consult the family physician and obtain the toxin-antitoxin treatment for her children at the doctor's office. There is no invitation to come to a free clinic. The nurse makes a list of all the pre-school children in the family and notes the name of the physician whom the mother has mentioned. A copy of the list will be sent to the doctor, and the medical men of the area have previously been brought together, the technic of toxin-antitoxin and the administration of the Schick test demonstrated, and the entire campaign outlined. The biological preparations are provided by the department of health, and for those financially responsible the physician makes his usual office charge, and for those unable to pay the health department reimburses the physician for his time without the knowledge of the patient and his family.

"There is much to commend a program of this character when the exigencies of the situation do not demand haste. The general practitioner of medicine is too frequently slow in keeping abreast with the advancement of preventive medicine. While we seldom meet the man who treats diphtheria with the elaborate synthetic compounds and irrigations of pre-antitoxin days, we do find vast numbers who have never read a Schick test. Is it not well that these physicians should conduct their practice with the full advantage of modern scientific methods, and how better can the health officer encourage this result than by creating a demand?

"The physician will be forced to practice good medicine, or else he will lose his patient. There is great danger that the enlightenment of the laity will outdistance the physician's own advancement."

PHYSIOTHERAPY

The April issue of the *Journal of the Medical Society of New Jersey* contains an article by Dr. Spencer T. Snedecor on Physiotherapy in the Hackensack Hospital. It informs the general practitioners what physical therapy is and the methods of its application. The article is timely in view of the attempts of unqualified persons to practice the specialty. It will enable general practitioners to visualize the various methods that are commonly used and the broad indications for their application.

(*Continued on page* 574, *adv. xii*)

The Management of an Infant's Diet

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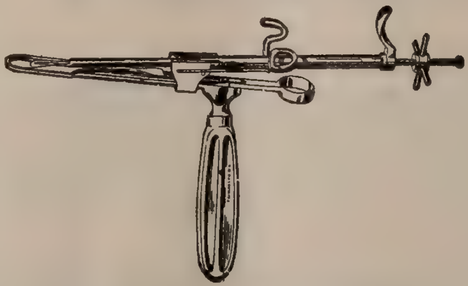

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"The Hackensack Hospital is a general hospital of 250 beds, the only one among the 25,000 people of the city of Hackensack. To it comes all classes of people, and its cases constitute a cross section of the medical practice of the city. Its physiotherapy department therefore affords the opportunity to estimate the field of usefulness as well as the limitations of physiotherapy in general practice.

"Physiotherapy is the application of physical measures in treatment and consists largely of the application of electricity to the various forms of abnormalities of the body. The electricity is sometimes applied directly for its stimulative effects, but is more often utilized as a source of heat and light. Next to electricity water is the agent most commonly used in physiotherapy, externally in the form of baths and sprays, internally as irrigations.

THE AGENTS IN PHYSIOTHERAPY.

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(2) Convective Heat—Radiant Heat.
(*a*) Carbon filament lamps.
(*b*) Bakers.
(*c*) Cabinets.
(*d*) Deep-therapy lamps.
(*e*) Infra-red lamps.
(3) Conversive Heat—Diathermy.
High frequency electric currents.
A Medical—Forms of application-circuits.
(*a*) D'Arsonval.
(*b*) Oudin.
(*c*) Tesla.
(*d*) Autocondensation.
B Surgical.
(*a*) Electrodessication.
(*b*) Electrocoagulation.
(*c*) Endothermy, radio knife, etc.
II Ultraviolet Light.
(1) Carbon Arc Lamps.
(2) Quartz-Mercury Vapor Arc Lamps.
(*a*) Air cooled.
(*b*) Water cooled.
III Other Electrical Currents.
(1) High Voltage.
(*a*) Static electricity.
(2) Low Voltage.
(*a*) Faradism.
(*b*) Galvanism.
(*c*) Sinusoidal Currents.
IV X-rays.
V Hydrotherapy.
(1) External.
(*A*) Hot Baths.
(*a*) Body Baths.
(*b*) Sitz Baths.
(*B*) Whirlwind Baths.
(*C*) Douche, Spray.

(2) Internal.
  (*A*) Colonic Irrigation.
  (*B*) Vaginal Douche.
  (*C*) Gastric Lavage.

VI Mechanotherapy.
  (1) Massage.
  (2) Vibration.
    (*a*) Hand.
    (*b*) Mechanical.
  (3) Exercises.
    (*a*) Active.
    (*b*) Passive.

"Nearly all these agents are used in the Hackensack Hospital with varying degrees of frequency and usefulness. They are applied only on prescription of the visiting physicians and surgeons and to those cases in which therapeutic results may be reasonably expected. During the past year 6432 patients have received 12,457 treatments, from which it will be noticed that each patient averages two different treatments on each visit. During the past month over 30 patients a day were treated in the department. The physiotherapy staff consists of a trained technician, two student nurses and an orderly. Every patient is examined before the first treatment and the exact prescription is outlined for the technician to follow. All treatments are supervised and the progress from time to time is noted.

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"A third type of heat is produced deep in the body by the passage of an electrical current through the tissues. This form of heat is known as diathermy or conversive heat. The tissues through which the electricity passes become heated in the same way that the filament in an electric light is heated. Its effects are deep and penetrating in contrast with the superficial effects of a hot water bottle or heat lamp. Diathermy will heat any organ or structure in the very cen-

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ter of the body to any degree of temperature f as long a period as one may desire. Actual the mometer measurements show that a vaginal tei perature of 115 degrees is readily maintained. ' accomplish this result without pain or damage the tissues, diathermy requires a high frequen current, by which is meant an alternating curre with impulses following one another in su rapid succession that living cells make no effort respond to them. The common street curre alternates 60 times a second, whereas the hi frequency current alternates one to two millio times a second.

"Medical diathermy is a constructive force th heats the tissues, bringing fresh blood supply ar increasing metabolism. Surgical diathermy is like force carried forward to the destruction o tissue by coagulation or cooking.

"The dosage or amount of heat the patie receives may be regulated in two ways; by chan ing the amount of street current which enters th transformer, and by widening the spark ga Within limitations the wider the spark gap th greater the voltage and the heat. The techni of dosage is not difficult for any administrato to master. Generally speaking, the dosage i guided by the tolerance of the patient to a comfortable heat. One should always be watchfu but need not be unduly concerned about the possibility of burning a patient. In over 3000 diathermy treatments we have witnessed only on real burn and three or four blisters from sparking at the edge of the electrode.

"The uses to which this form of diatherm may be put are many and varied. Better tha mastering all the possible applications is for th physician to learn the simple fact that the purpos of diathermy is to create heat and hyperemia i the tissues. Diathermy is therefore contraindicated where there is danger of hemorrhage or o pus without free drainage.

"In the Hackensack Hospital its use is wid and the results are excellent in the following treatments: (1) For stiff joints resulting fron fractures or arthritis; (2) for infections with drainage; (3) for pain in fractures, strains bruises, neuritis and sciatica; (4) for some types of hypertrophy of the prostate; (5) for gonorrhea—epididymitis and buboes in male, vaginal and pelvic infections in female, arthritis and posterior urethritis; (6) for maintaining nutrition in paralyzed muscles; (7) for calcification of bursæ; (8) for arthritis—sometimes quite effective and again disappointing."

TUT-ANKH-AMEN'S COSMETIC

The *British Medical Journal* for January first contains the following description of the content of a cosmetic jar found in the tomb of Tut-Ankh-Amen.

"The lid of the jar was cemented by a protective crystalline incrustation, an effect resulting from the action of moisture and saline matters contained in the dust of the local atmosphere. The contents of the jar weighed about 450 grams, or nearly a pound avoirdupois. It is described as rather sticky, and presenting the appearance of a heterogeneous mixture consisting of yellow nodules together with a chocolate-coloured substance. It became softened by the heat of the hand, and possessed a faint but distinctive odour which has been variously described as that of coco-nut or the flowers of broom, but rather valerianaceous. While the odour was decidedly fatty, there was no suggestion of rancidity. No vegetable structure or fibre could be distinguished by microscopic examination.

"It seems strange that the fats themselves had not wholly lost their fatty nature. This, however, they had preserved, but not without considerable modification of chemical structure. So far as could be judged from the chemical evidence, the fats had undergone hydrolytic cleavage into glycerol and free fatty acids; the glycerol remained largely unchanged, but the free fatty acids had combined with each other to form acid anhydrides, and those which were oxidizable had suffered oxidation—that is to say, such acids as oleic acid had acquired two or more hydroxyl groups. The investigations record the presence of 4.8 per cent. of free and combined glycerol, which the authors state is largely, if not entirely, in the free condition; but we do not see how to reconcile this proportion of free glycerol with the diminutive quantities of matters set down as soluble both in alcohol and water in the general proximate analysis. Nothing of the nature of wax was found. Since the waxes are generally more stable than fats, this observation seems definitely to decide their absence. The fatty acids actually recognized were stearic, palmitic, and myristic acids, and smaller amounts of acids more nearly related to lauric or capric acid. The chemical evidence generally would seem to exclude coco-nut and palm-kernel oils, and it does not seem probable that any vegetable fat would have been available having the small proportion of olein computed to have been originally present. From these data Chapman and Plenderleith conclude that it is highly probable that the cosmetic was composed of about 90 per cent. of an animal fat and about 10 per cent. of a resin or balsam.

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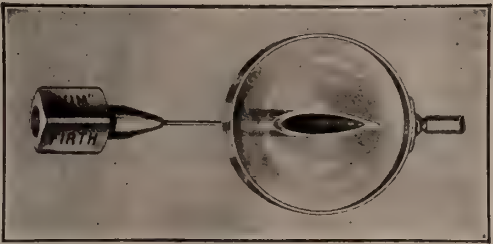

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WEEKLY HEALTH MESSAGES IN IOWA

The *Journal of the Iowa State Medical Society* for February contains an article on Weekly Health Messages, from which the following abstracts are taken.—THE EDITOR.

"In order that the general public may become properly informed in regard to the better methods of preventing disease, it is necessary to carry on a continuous campaign publicity. This may be done by state or local boards of health by themselves, by the medical societies as such, or by a co-operative effort on the part of various organizations.

"The State Department of Health is now issuing a Weekly Health Message of about 250 words dealing with some timely subject and accompanied by morbidity statistics of communicable diseases. These are being sent to newspapers and other publications; to health officers of the larger cities, and to the president and secretary of every county medical society.

"It is being sent to the officers of county medical societies for two reasons:

"1. That the medical profession may be kept informed regarding what is being sent out t its State Health Department.

"2. To encourage the proper local organiz tions to make use of such or similar materi as may be proper and appropriate for loc publicity purposes."

"Messages" issued to date are as follows:

No. 1. December 6—"The Prevention o Scarlet Fever by Immunization."

No. 2. December 13—"Closing of Schoo Because of an Outbreak of Communicabl Disease."

No. 3. December 20—"Goiter in Iowa."

No. 4. December 27—"Rabies Eradicatio Through the Protective Inoculation of Dogs."

No. 5. January 3—"January Wave of 'Cold Can be Stopped."

No. 6. January 10—"Reducing the Infan Death Rate."

No. 7. January 17—"Measles."

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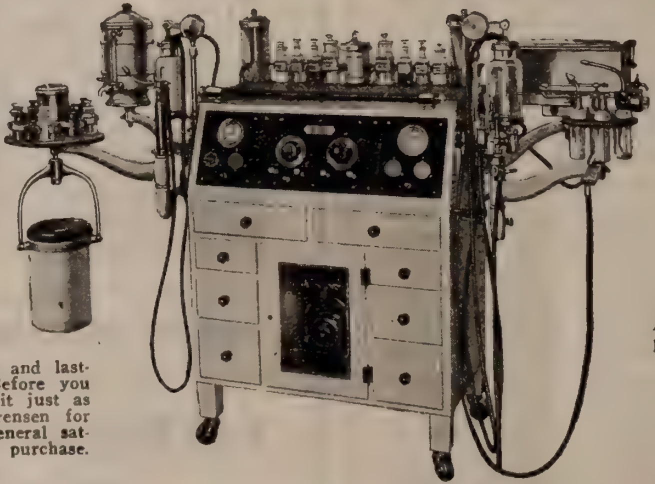

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THE COMMONEST FOCAL INFECTION

What is the most common focal infection? This question is answered by Dr. Edward E. Cornwall of Brooklyn in the following article in the April issue of the *Long Island Medical Journal*. —Editor's Note.

"The intestinal canal, or its contents, as a focus of infection shows this difference from foci of the peridental and tonsillar varieties: the bacterial activities in the intestine take place outside the wall of the body, while in the case of the other foci those activities take place inside the body wall. This difference, however, loses much of its significance when we consider the large field which the intestinal bacteria have to work in and the large extent of absorbing surface for their toxic products afforded by the intestinal mucosa; as well as the fact that abrasions in the intestinal mucosa are commonly present, through which bacteria can easily pass into the blood stream, and also the probable fact that in certain conditions they can penetrate mucous membrane which is structurally if not physiologically perfect.

"A meat diet favors growth of the saprophytic or putrefactive types of bacteria, while on the other hand, a lactovegetarian diet, by favoring growth of the acidophilic types of bacteria and thereby change in the chemical reaction of the bowel contents, to a certain extent inhibits growth of the putrefactive types.

"Matthews says (Physiological Chemistry, 1925):

" 'From the decomposition of proteins the most toxic substances are produced.'

"Amino acids are inert, but bacteria can tear them to pieces, and some of the fragments are very toxic: phenol and cresol may be set free; indol and scatol are produced by putrefactive action from tryptophane, cadeverin from lysin, hydrogen sulphide, which is capable of dissolving red blood cells, from cystin, and the highly toxic B-iminazolethylamin, hydroxethylamin and indolethylamin from histidin, tyrosin and tryptophane, respectively.

"Amines of the ptomaine class produced by putrefactive bacteria 'have in many instances a powerful effect on the blood pressure, and may be of great importance in the production of high blood pressure and resulting thickening of the arterial walls.'

"There can be no question of the importance of these putrefactive substances in the well-being of the individual.

"None of the products of carbohydrate decomposition are harmful so far as known . . . By carbohydrate fermentation acidity is increased. . . . Many bacteria cannot metabolize in the presence of acid.

"Many hidden or chronic slight inflammations are often stimulated to become acute, or more active, by intestinal putrefaction. Thus colds may develop, catarrhs become worse, chronic nephritis of mild type becomes acute, erythemas develop in various parts of the body, or even old healed wounds with bad circulation may inflame and break out afresh.

"Mackenzie says that intestinal toxemia is the most frequent cause of functional disorder of the heart.

"Common clinical experience furnishes abundant examples of the bad effects of intestinal toxemia.

"Nature, to a certain extent, provides protection against this focal infection, and the intestinal toxemia belonging to a mixed diet, which is man's proper diet, does little or no harm to healthy individuals. It is those who are below par or diseased who are vulnerable.

"But the number of such vulnerable individuals is so great that the treatment of this commonest focal infection, which is essentially dietetic, occupies a prominent place in therapeutics."

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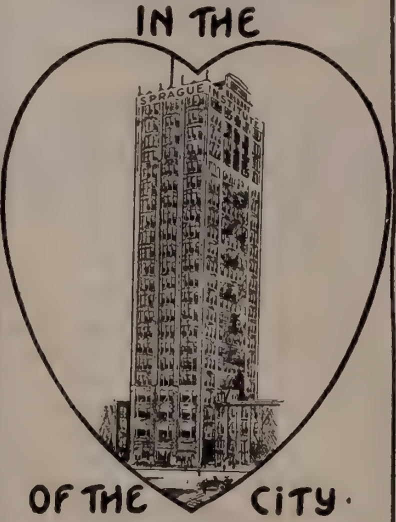

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RE-INFECTION WITH SYPHILIS

The *Long Island Medical Journal* for April contains the following report of a case of second infection with syphilis, written by Dr. Henry H. Morton, of the Long Island College Hospital:

"Before the discovery of the Wassermann test and its application to practical purposes of the diagnosis of syphilis, it was universally taught that one attack of syphilis conferred immunity against the disease during the patient's lifetime. A probable explanation of this fallacy would be that many individuals who showed no outward signs of the disease, were actually still syphilitic and would have shown a positive reaction of the blood if they had been put to the test. Attempts at inoculation of syphilitic individuals with virus from another syphilitic always failed, except in the first three or four weeks after infection (super infection) as has often been demonstrated by laboratory experiments particularly on animals. As soon however as the syphilitic is cured, and the Wassermann reaction of the blood and spinal fluid are again negative, the state of immunity no longer exists and the patient is susceptible to inoculation with spirochæta pallida, the syphilis develops and runs its usual course. A few cases of true second infections of syphilis are on record, and with proper care the initial sore in such a case may be easily differentiated from a tertiary gumma developing long after infection on the site of the original chancre.

"The following case illustrates a true second infection with syphilis in an individual who had previously had syphilis and was cured. The patient, a male, twenty-six years of age, consulted me October 31, 1921, on account of a hard papule on the prepuce which had been present for fourteen days and had appeared about one month after a suspicious coitus; darkfield was positive for spirochætæ. Intravenous treatment was begun at once, and in six weeks the patient received 3 6-10 grams of old salvarsan followed by twelve injections of salicylate of mercury. On April 10th the blood Wassermann was negative and remained so, the blood being taken at intervals, the last one being done on March 19, 1924. On March 24, 1924, he consulted me again, stating in the last six to eight weeks he had had coitus with three different girls, none of them prostitutes. On examination I found a round papule, one-quarter inch in diameter with an ivory hard base, located in the sulcus-coronarius which he stated had been present for two weeks. On darkfield examination a few spirochætæ were found. Intravenous injections were begun at once, and the patient received in all, three grams of old salvarsan followed by twelve injections of salicylate mercury. The Wassermann was negative on beginning treatment and it remained so until the last examination on April 2, 1925.

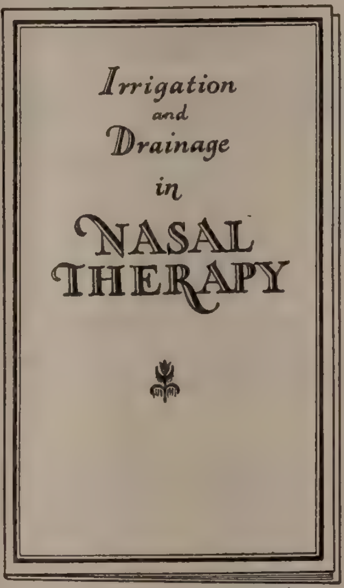
"This case illustrates several points in the newer modes of thought in regard to syphilis:

"1. One attack of syphilis does not produce a state of immunity in the patient, and an individual may acquire syphilis for the second time.

"2. Syphilis may be entirely cured with one course of salvarsan and mercury if treatment is begun early enough.

"3. It is most essential for the well-being of the patient to begin treatment as soon as the darkfield shows spirochætæ in the secretions from the initial sore.

"4. The chances of the patient for a cure with one course of treatment are better if treatment is begun while the Wassermann is still negative and before the virus becomes fixed in the tissues, when the Wassermann becomes positive."



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NEW YORK STATE
JOURNAL *of* MEDICINE

PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

VOL. 27, No. 11 NEW YORK, N. Y. JUNE 1, 1927

PRESIDENT'S ADDRESS

By GEORGE M. FISHER, M.D., UTICA, N. Y.

Delivered at the Annual Meeting of the Medical Society of the State of New York, May 11, 1927.

ACCORDING to along established custom, it becomes my duty and privilege, as President of the Society, to address you this evening. In preparing the address, I found myself in the very unusual situation of having many subjects, the discussion of any one of which would be appropriate for this occasion. A few of those I think I should mention. There is the nursing situation. For several years we have had special committees make a study of the problem. They have offered a number of suggestions for the betterment of the situation, some of which have proven their value. There is no longer the acute shortage of qualified nurses which so seriously threatened proper care of the sick a few years ago, but the final solution of the problem has not yet been found, because all of the affected parties did not at once undertake jointly the solution of the problem, but now that selected committees representing the public, the physicians, the hospitals and the Department of Education, are giving the matter serious consideration, permanent relief can be expected.

The nurse's registry bill, which the legislature has just enacted into law, provides that registries shall furnish women sent out to do nursing with a card stating the qualifications and experience the bearer has had and the salary she is to be paid, and it also requires the agency to send the same information to the employer within twenty-four hours of the time of employment. Several benefits are likely to arise from this law; namely, unqualified women will find it difficult to misrepresent themselves, and those of less training will be prevented from asking the salary of a highly trained person. It will now be possible also for registries to supply patients with the type of nurse the case requires. We confidently believe the operation of this law will tend to relieve the shortage of nurses by helping the public secure with assurance the highest grade of trained nurse or one of moderate training, as it may require.

The etiology and effective treatment of cancer is another subject that is commanding international attention at the present time. Large sums of money are being appropriated today in almost every civilized country for the construction and operations of hospitals, clinics and laboratories for the special study of cancer. This intense interest is warranted, because the vital statisticians advise us that the death rate from cancer is increasing. I may dispose of this subject by calling your attention to the program for tomorrow, which will be devoted entirely to the consideration of cancer.

Another subject which, in one form or another, is commanding universal attention, is a provision for the compensation and rehabilitation of injured or incapacitated workmen. This subject has also received considerable attention by the committees appointed from this Society. Here, again, there are several parties concerned and no satisfactory solution to the problem can be expected until an equal interest is shown by all of those who will be affected. It is the hope of our committee that the legislature will see fit to reorganize the medical division of the Department of Labor along certain lines which they have been several years devising.

The need for physicians in the rural districts, a problem which a few years ago was of such importance as to warrant the Governor calling a conference for its consideration, has not been solved; on the contrary, observers tell us that there is still a marked movement of physicians toward the large centers of population. Another problem which, in some counties, is closely allied, is the construction and operation of hospitals in rural communities. The organization of a rural hospital system may effectively check the migration of physicians from the rural districts.

This seems to me to be an idea worth considering and a subject in which the public should take an active interest. Physicians are trained today to check up their diagonses with various laboratory tests and neither the patient nor the physician is satisfied without recourse to such procedures. Equipment of laboratories for such tests is too expensive for most physicians to incorporate with their private offices and almost entirely prohibitive to the young man just beginning to practice. Therefore, if rural communities want physicians with modern training to settle among them some scheme must be devised by which these laboratory facilities will be immediately and locally available. Experience has proven that proper care for many conditions cannot be given in the private home. In such cases the patient is obliged to choose between limited care at home with the local physician, or hospitalization in a distant city under another physician. Good roads, automobiles and telephones are making the physician of the cities more available to residents of rural districts but they do not affect hospital and nursing care to the same favorable degree.

And another question which today is being widely discussed, not only in America, but in several of the European countries, is the part newspapers and magazines can take in the instruction of the public in medical matters. It has become an expected procedure for health officers and voluntary agencies interested in the promotion of public health programs, to use the press freely for the dissemination of such information as they desire the public to have. Their efforts in instructing the public have been so remarkable successful that articles on public health have been sought by certain publications, and at present we note in some an inclination to discuss truly medicals problems that can only be treated properly by fully trained physicians. Physicians have hesitated to comply with the requests that are made upon them for such articles, on the ground that to sign them would be unethical, with the result that the public has manifested some impatience with our ethical restrictions. The British Medical Society recently expelled two of its members for having given to the public press medical articles over their own signature. The public press was divided with regard to the action of the Society, a majority disapproving.

Although there are other subjects in the medical realm of today that are demanding and receiving more or less interest, I shall invite your attention for a few moments to the consideration of what, in my opinion, is the most important activity man has ever undertaken; namely, the prevention of disease by the practice of preventive medicine. The old axioms that "At stitch in time saves nine" and "An ounce of prevention is worth a pound of cure," can be demonstrated nowhere more clearly or forcibly than by our present methods of protecting and promoting life. Disease and decay have always beset men and nations, and master minds have ever been engaged in devising schemes for their prevention or postponement. Each generation contributes to the general advancement through its application of the principles and discoveries laid down by its scientists. One of our earliest records of an effort to prevent inroads of disease, is contained in the Laws of Moses, given to the children of Israel.

History records no more exciting nor fascinating events than the conquests of disease, and this is particularly true in recent years because lately man has been uniformly more successful in overthrowing his arch enemies than he had been in previous generations. The prevention of certain diseases is an actual accomplishment, and no longer a theory alone. However, much remains yet to be done. If this generation were to employ as completely as it should, the facts scientists have given us regarding the function and use of our bodies, the result would be truly miraculous. No other generation has employed in its own defense all of the facts that science revealed and, therefore, it is safe to predict that this generation will not be markedly different unless some agencies not functioning in the past, should become active. For some unknown reason, the public has maintained an attitude of indifference, or only spasmodically shown any interest in the promotion of programs of health. When the public has been thoroughly aroused to the importance of some health procedure, they have demonstrated what wholehearted cooperation can do. This has been beautifully illustrated in many cities and countries in the efforts made to secure pure drinking water and the disposal of waste. Fifty years ago this Society had a very active committee on hygiene, whose annual reports abounded in elaborate and scientific surveys of water supplies, various members of the committee reporting upon the water supply of their own city or county in their district.

The knowledge that polluted water is dangerous to human life, was known and spoken about by physicians for a good many years before the public became interested, but after several severe epidemics of cholera has visited some of the large cities and the relation of the epidemic to the water supply definitely established, the public everywhere made the purification of its supply of drinking water its principal concern. Large sums of money were appropriated and the most capable physicians and engineers employed to provide supplies of pure water.

When citizens of New York City began to be skeptical about the healthfulness of milk produced by cows stabled in breweries and fed on swill, the Mayor invited the Academy of Medicine to make a study of the subject and report to him upon it. The report this committee submitted in 1858 condemning the use of milk so produced, was one of the earliest reports on milk in United States. This report stimulated public interest in its milk supply, which has progressed until today, when the milk distributed even to the smallest community is subject to inspection by State officials and must meet the requirements laid down by the law. There is no rumor that can produce a more spontaneous uprising of the people than to have them learn that their milk is being diluted or contaminated. By thus safeguarding these two food supplies, the public has added a least decade to the lives of the present generation.

If further examples are needed to prove the point that I am attempting to make, that when the public is interested to the point of cooperating with physicians, the discoveries of scientists can be made practicable and prove valuable, I would call your attention to the exceedingly few cases of smallpox reported annually now, as compared with the violent epidemics that swept the country fifty years ago, or to the results that have been achieved in rescuing the people from the dread disease of tuberculosis. This campaign has not yet been concluded, but if the public maintains its interest and cooperates not only by appropriation of sums of money, but with observance of sanitary regulations, victory is assured.

It is evident, therefore, that prevention of disease and postponement of decay will vary in direct proportion to the degree of cooperation between physicians and public. Many physicians and philanthropists and public spirited men have always been aware of this relationship, but it has not always been possible to agree upon programs of cooperation and some splendid plans have miscarried because of mutual mistrust in the sincerity of individuals engaged in their development. The mystery of life and death is such an excellent base for superstition that it is always difficult to free everybody from some extravagant or pessimistic thinking and base all plans for advancement and deductions of success upon observed facts and actual findings. We physicians must admit a share of responsibility for the failures in the past, because our societies, both county and state, have too frequently put an indifferent interest in the public efforts that were made. During the past year we have made an effort to insure complete medical cooperation in future health protecting programs, by naming a number of experienced physicians from the State Society to compose a committee on Public Relations, and this committee in its reports recommends that each County Society create a similar committee. The committee of the State Society began functioning immediately by considering with representatives of the State Charities Aid Association the medical phase of activities it is promoting. The committees have had several conferences, the minutes of which have been published in the JOURNAL. They have come into entire agreement upon the following points:

1. That mutually confidential relationship which has always existed between patient and physician is ideal and must not be disturbed or abandoned, but promoted.

2. The indigent must be protected against communicable disease, and when infected, so isolated and treated as to afford the public the greatest degree of protection.

3. Voluntary agencies can do a great work by stimulating a constructive interest in the public in behalf of its welfare.

4. The County Medical Society should be in intimate contact with all activities that concern the health of the public or its individuals, and offer its advice and assistance when its special knowledge and experience would be of value.

It is the intention of the Society that this committee shall have similar conferences with the representatives of the State Department of Health, and all other associations engaging in activities allied to medicine. These conferences should result in clearing away most of the misunderstanding that now is interfering with the harmonious extension of the benefits of modern medicine and medical training. In proof of this contention, let me cite the campaign that is being waged against diphtheria. This dreadful disease has been the enemy of childhood for centuries, and it is only within the last forty-five years that the germ causing the disease has been found. Knowing the germ, science has developed an antitoxin to counteract its poison, and lately a method of immunizing the child against the disease. In 1878, five years before the discovery of the diphtheria germ by Klebs, Dr. Francis Stuart of Brooklyn reported to the State Society at its annual meeting that in that city of half a million population, "There was an average of 20½ deaths weekly from scarlet fever and twice as many from diphtheria during the first three quarters of the preceding year." He added that there was no epidemic of the diseases in that time and that the number of deaths from both diseases increased in the last quarter beginning shortly after the opening the schools. Brooklyn was losing annually more than 3,000 children from these two diseases. Dr. Janeway, the next year reported that in New York City, with a population of one million, 1,000 children had died from croup and diphtheria during the first three quarters of the year. In 1875 and 1876, the cities had been visited with an epidemic and the reports of the committee on hygiene for those two years state that in the first three quarters of each year there were, in New York City, respectively 2,165 and 1,793 deaths from diphtheria. In 1926, in the entire State of New York, with a population 12 times as great as that of New York City in 1878, there was reported only 728 deaths from dipththeria. This wonderfully successful campaign against diphtheria is not completed, but except for the possibility of local brief epidemics where immunization may not be completed or may have been neglected, we shall never again feel its destructive power, because this is a disease that can be prevented and the public and physicians have permanently combined for its elimination and prevention.

The employment of methods of prevention have also been successful against certain other common infections which were accustomed to sweep the country in violent epidemics. Typhoid fever, the dreadful scourge in times of peace and war, always killing more than the bullets, was almost entirely eliminated from the world war after the first year. Yellow fever, cholera and malaria, the scourges of the tropics which were even known to visit our State in its early history, are fast receding before effective methods of prevention employed against them.

Practice of preventive medicine does not mean solely preventing the inroads of contagious diseases, but embraces, also, methods of preventing and postponing the advance of degenerative diseases and conditions. When men will realize that the onset of degenerative diseases may be postponed as effectively as communicable diseases can be prevented and physicians will take the same interest and pains to discover and control them, the expectancy of life will again be markedly increased. I greatly regret that in my travels over the State in the last year, I found so little evidence of the physicians incorporating as a definite part of their practice the periodic examination of adults. Pediatricians are developing their specialty in this field to the point where many no longer wish to see the sick, but are devoting their entire time to advising with parents as to the proper methods of protecting and developing their growing children. There is an equal opportunity for the general practitioner to advise with his adults if he will only realize it. I am inclined to think we are making too much of an excuse of the fact that only a specialist can give advice. I am not in accord with this spirit. The general practitioner makes many diagnoses of ills and ailments and treats all but a very few without the assistance of a specialist, and if he is capable of doing that, he is certainly capable of examining individuals at intervals and advising him how to live so as not to do himself an injury, or to tell him when to see a specialist about a condition that he may discover and for which he may not care to take full responsibility. The public is learning from many sources the value of an annual inventory of health, and I confess I grow impatient with the physicians' indifference to this developing demand.

Annually we are obliged to go to Albany to oppose bills introduced by cults of one type or another. Have you ever wondered why the Legislators should be willing to spend their time on such stuff? I'll tell you something about it—the cultist, having no great store of medical knowledge, does understand human nature and he takes pains to convince his clients that he is interested in their welfare. They appreciate his efforts and besiege the legislators in his behalf. Do many patients of physicians show the same interest in the physicians' welfare? Are we not, through our great specialization, losing the interest of our patients? Are we not growing to be more interested in our patient's head, heart, lungs or some other specific part or organ, rather than in the patient as the possessor? Not only do we no longer take the interest in our patients that the physicians of the previous generation took, but we are inclined to take little or no interest in health of the public as such. How many times have I heard physicians reply to questions of public health, that they knew nothing of them—the health officer was employed to look after such. Should not the activities of the health officer be a concern of every physician practicing in that community? We hear criticism of the public clinic, but how many physicians have given the cause enough consideration to be able to suggest a plan to take the place of the public clinic system? Physicians are losing patients daily to public clinics, all through their own indifference. Physicians employed by industries find it exceedingly difficult to confine their work to their plants because the employees think the man who gives them, periodically, an examination and advice, is more approachable than the physician outside. It is a very serious matter in the care of the sick when the family physician cannot command the full confidence of the family, and it is absolutely impossible to practice preventive medicine under such conditions.

Physicians' ethics do not permit them to advertise, but they are not prevented from taking advantage of the instruction given by others, whether through public lectures or printed page. I urge again that we all take a lesson from the pediatricians and develop a practice of keeping the well person robust, rather than limit ourselves to the troublesome ill. We shall find it more profitable and less nerve racking.

In this connection, let me speak of the latest action of the State Society in the field of preventive medicine. We have created a committee to study diseases of the heart. The findings of this committee should be impatiently expected by every practitioner in this State. No group of diseases is carrying off so many adults annually as the diseases of the heart and blood vessels. This committee should be able, from its findings, to give us suggestions as to how we may discover degeneration in the circulatory system early, and probably they can suggest some causes and remedies and precautions. I predict that they will recommend periodic examination of the hearts of all of the adults under our care. There can be no better advice, and if we follow it, we shall then be practicing preventive medicine in a field where it is greatly needed today. Medical men can do no greater work for humanity than to help make the diseases and degeneration of adults as well known and understood as they are of children today.

"Prevention" is the slogan of the day in medicine, and physicians were never better qualified to accomplish miracles in their practice than they are now. In our County Societies, in addition to scientific study, we should consider the problem of health and hygiene in our communities and fit ourselves to be such leaders and directors as we are expected to be by those who desire to improve hygienic conditions or protect the public against the inroads of disease.

As your retiring President, I am proud to say that the challenge has already been accepted. The Medical Society of the State of New York occupies today, through its members both individually and collectively, prominent positions in the forefront of every form of medical activity. Our advice and support is sought by the Governor of our State, by several departments of the State government, and by numerous voluntary agencies and municipalities. We have merited this trust and confidence. It is therefore, with mingled feelings of regret and pleasure that I reach the close of my term of office. The opportunities for unusual service were so plentiful and the hearty support I received from everyone was so cheerfully proffered, that I shall ever look back upon this as the happiest year of my professional life. And it is with deep sense of satisfaction and confidence in the ability of your new President that I ask you to pledge him as valiant support as you gave me.

And thus another year will find the Society realizing more completely its unlimited opportunities and tremendous responsibilities.

THORACIC SURGERY*

By CARL EGGERS, M.D., NEW YORK, N. Y.

THE Annual Meetings of the American Association for Thoracic Surgery have been an indication of the interest taken in this subject, and the transactions published in the Archives of Surgery each year are a record of the accomplishments during the preceding year, and are recommended to you for study. Progress in this field has been slow and continues to be slow, not because of lack of courage or ingenuity or skill on the part of surgeons, but because so many of the problems presented are different from those encountered in other surgical conditions of the body. We have to deal not only with surgical diseases that in themselves tax a surgeon's resources, but in trying to reach them the more intimate phases of respiration and circulation have to be considered, and ways and means found to avoid the dangers associated with disturbing them.

Whatever progress has been made has been due to the close collaboration between the Radiographist, the Endoscopist, the Medical man and the Surgeon. When surveying the entire subject one realizes how little we really know, and how much has to be learned. It is no wonder that many surgeons avoid thoracic cases. The treatment is usually long drawn out, the attention required frequently out of all proportion to the gain, and the results often discouraging.

Still a great deal has been learned, both in regard to diagnosis and treatment. One of the most important aids is the X-ray, and the full realization of its value has helped much to clear the conception of many hitherto misunderstood conditions. Endoscopy has advanced a great deal, so that we can now receive aid in diagnosis by means of the Bronchoscope and the Esophagoscope and in addition to that the instruments are used in the treatment of pulmonary suppuration and for the extraction of foreign bodies.

The greatest difficulty in thoracic surgery, an acute pneumothorax, can now be effectually prevented by one or the other methods of differential pressure. Whereas in the beginning the apparatus for this purpose was complicated, beginning with Sauerbruch's negative chamber and Brauer's positive one, followed by Willy Meyer's combination of the two, and later by the Melzer-Auer method of intra-tracheal insufflation, we now have the simple so called intra-pharyngeal insufflation anesthesia. No special apparatus is required for this, but any of the well known gas-oxygen-ether machines answer the purpose. Every institution may therefore fearlessly attack any interference with either their respiratory or a snugly fitting mask one may vary the intrapulmonary pressure by increasing or decreasing the pressure in the bag, and the lungs may be kept moderately inflated or completely expanded as desired. The alternating collapse and expansion is at the same time a wonderful stimulant for the heart, and may be resorted to at intervals in all long drawn out operations, or when shock is threatened.

Another thing we have learned is the great value of doing thoracic operations under local anesthesia, thus avoiding irritating the lungs in a system already affected. Resection of the chest-wall, operations for acute empyema and lung abscess, also many chronic empyema cases, and operations for extra pleural collapse in bronchiectasis and tuberculosis may well be done under local anesthesia. Then also we have learned much about prophylaxis, what not to do under general anesthesia, thus avoiding aspiration of septic material. In case aspiration has taken place an early bronchoscopy, sucking out the offending material, may prevent dreaded complications.

In deciding on operation for any intra-thoracic lesion the general condition of the patient has to be carefully considered, to determine in advance about how much he can stand, and not to overtax his resistance. In a practical way the importance of this has been recognized for a long time, and out of it have developed methods of procedure dividing operations into several stages, avoiding large defects in the thoracic wall, avoiding opening the chest in cases of empyema while the pneumonia is still active, instituting closed rather than open drainage in certain cases, etc. Scientifically speaking, one calls this taking the vital capacity of the patient into consideration. By vital capacity is meant the total amount of air a patient can inhale with a maximum effort. Normally it is about 8-10 times as large as the amount of total air used in ordinary respirations. It varies a great deal in different individuals and in the same individual under different conditions of rest, exertion, emotion, etc. Medical and surgical conditions of the respiratory and circulatory system and allied organs reduce the vital capacity until in some patients with dyspnoea a maximum effort at inspiration is made with each breath. Such patients are evidently not able to withstand any interference with either their respiratory or circulatory mechanism. Vital capacity depends on the normal functioning of circulation and respiration, and varying degrees of disturbance give varying degrees of reduction of this function. In the same way, opening the thorax at once reduces the vital capacity, and the amount of reduction depends on the size of the opening, the mobility of the mediastinum and the amount of interference with the intrathoracic organs, and it is therefore important to take all these into consideration.

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* Read before the Nassau County Medical Society, November 30, 1926.

When we come to consider the various affections of the thorax and its contained organs, we find that in the treatment of some very little progress has been made, while in others results are shown which stimulate us to further efforts.

CHEST WALL

Surgical affections of the chest wall have always been attacked by the general surgeon, and no special apparatus is required so long as the parietal pleura is not involved and does not have to be opened. Even the most extensive may be operated on under local anesthesia. One should be prepared, however, to use intrapharyngeal insufflation anesthesia in case the pleura is found to be involved. A combination of the two is often advantageous. If it is known in advance that the pleura is involved, it is best to begin the operation under general anesthesia, because patients do not stand wide opening of the thorax under local well. Cold abscesses, tuberculosis of the rib, gummata, osteomyelitis and chondritis may all be operated on with the aid of novocaine, because the underlying pleura has usually become so thickened that there is no danger of entering it.

The principal tumors that come under consideration are sarcomata and chondromata. They are quite malignant, but fortunately are relatively rare. The ribs are much more often affected than the sternum, being twice or three times more common. Radical removal is the operation of choice, but if that is not possible, a palliative procedure, consisting of partial destruction of the tumor by means of the cautery, is of value. It may prolong life and relieve the distressing pain of which these patients complain. Secondary carcinoma of the chest-wall, following amputation of the breast, is at times operable and its removal may lead to complete cure. In the absence of metastases alsewhere an attempt at radical removal should therefore be made.

EMPYEMA

Many consider this a closed chapter, and although there is nothing new to offer in this field, it behooves us to take stock and see whether we cannot improve on our results. Empyema is a common disease, frequently with a very high mortality, and it is therefore of great importance to the community. For this reason steps taken to combat its mortality are really of great immediate value. Then also so many young people are afflicted, whose lives should be saved, that it becomes necessary for every surgeon to familiarize himself thoroughly with all the aspects of empyema. One of the most interesting things in connection with this condition is the wide variety of mortality statistics, ranging from 1 to 25 or more per cent. I do not mean the statistics of an epidemic, which are nearly always high, but those sporadic cases which occur over a period of years in the usual hospital service, and are collected by different authors. Although it is known that the type of organism is an important factor one is also forced to the conclusion that the method of treatment plays an important role. In considering treatment it is not only a question of the type of operation, whether one uses rib resection or intercostal drainage, closed or open treatment, but whether the operation was done after preliminary aspiration and whether the pneumonia had subsided at the time. There is no doubt that all these points are of the greatest importance and that attention to them determines to a large degree the outcome in a given case. Each patient must be carefully studied and an operation done in such a way and at such time, as will most likely restore him to health. There is no need to consider such cases emergencies except in a very few instances.

For practical purposes it is well to differentiate between pneumococcus cases and those due to the streptococcus, staphylococcus or colon bacillus, for in the former one is more likely to have thick pus early, and in the latter group thin pus and in larger quantities. Of course this is not an absolute finding, but it guides one somewhat. If no laboratory is available, and one is in doubt which organism one is dealing with, a practical guide in treatment should be:

1. To delay operation until the pneumonia has subsided.

2. Not to evacuate an extensive pleuritic exudate suddenly.

Applying this to an individual case it would mean the following:

In a patient with a small or moderately large empyema, in whom the pneumonia has subsided and the exudate is thick creamy like, showing about 50% pus by sedimentation, the best operation is resection of a portion of rib, usually the 8th or 9th, or in case of a localized pocket, of a piece of that rib which will most likely insure good dependent drainage.

In a patient with an extensive exudate of thin pus, which may interfere with respiration and circulation and in whom the heart is grossly displaced, it is best to do one or more preliminary aspirations by means of a Potain Aspirator, or if that does not work well on account of flakes of fibrin constantly blocking the needle, to institute some form of closed drainage. The purpose of this is to carry the patient along until the pneumonia has subsided and sufficient adhesions have formed to avoid the dangers of an acute open pneumothorax. Later one my safely resect a rib and continue open drainage. The simplest way to perform a closed drainage is to insert a straight trocar in the 8th or 9th intercostal space and then slip a rubber tube through this into the thorax sufficiently far to have the openings of the tube just within the thoracic wall. The tube is then connected with a drainage bottle with the end of the tube under fluid level.

With intelligent treatment the majority of acute empyema cases heal in from 3 to 6 weeks. It is important to follow the case by means of the X-ray to detect secondary pockets or a possible underlying lung abscess. The chief consideration is to maintain good drainage, because imperfect or inadequate drainage is the principal factor in producing chronicity. If this is generally known and properly appreciated chronic empyema should come under our care less frequently.

What should we do with a chronic case, however, when it does come under our care? It should first of all be studied carefully to determine why it has not healed. A good history, examination, cultures, and X-ray will help to do this. After this one should establish good drainage at the dependent part and then begin the use of Dakin-Carrell treatment. The latter is of great value in this class of cases, as it tends to sterilize the cavity and the latter then quickly diminishes in size and either heals or is put into better condition for subsequent operative interference. In addition to treatment, however, these patients must be given exercise, sunlight and a diet high in caloric value.

If all these measures fail to bring about healing, an operation is indicated for the removal of whatever factor is responsible for the chronicity. It may be an osteomyelitis, secondary pockets, a rigid unyielding cavity, an infected lining, foreign bodies or one of several others. If the cases are properly prepared and the best time for operation chosen the results, both immediate and late, are very good. The important thing is not to do too much in one sitting, but rather divide the operation into two or more stages.

INTRAPULMONARY SUPPURATION

This entire chapter is a difficult one for several reasons. The patients are usually very sick and have little resistance. There is considerable difficulty in making a correct diagnosis of the nature of the process, and of its exact location and extent. Then, too, there is still a great deal of confusion regarding the best way to treat these suppurations. Of this chapter of thoracic surgery one may truly say, progress is being made, and the bronchoscopists deserve a great deal of credit for this. We all know that acute abscess may clear up spontaneously, and that, therefore, one should be conservative in the beginning. A cure may be hastened by postural treatment. If the location is favorable, they may be cured by bronchoscopic treatment, evacuating the pus and perhaps instilling some antiseptic solution. Some abscesses perforate into the pleura, and drainage of the resulting empyema will bring about a cure. Others have to be operated on. There is still no unanimity of opinion regarding the best time to operate. Some surgeons incline to a very early operation, while others prefer to wait until the acute signs and symptoms have subsided. There seems little doubt that early operation will insure a more perfect restitution to normal, and that late operations are more often followed by a bronchial fistula and by permanent damage to the affected lobe. On the other hand, the operations done during the acute septic stage have a much higher mortality. The decision is, therefore, always a serious one, and I believe that unless the abscess has been localized very definitely and is easily accessible, it is wiser to delay operation until a more opportune time. One may operate in one or two stages. The purpose of the two stage operation is to bring about adhesions of the affected portion of lung to the parietal pleura. This is accomplished by painting with tinct. of iodine, by a circular surture, or by packing gauze against the parietal pleura. Another reason for a two stage operation is not to overtax the strength of the patient, whose vital capacity is usually low. Occasionally, however, the entire procedure can be carried out in one stage. The functional and cosmetic results following operation are very good.

Chronic Lung Abscess, or bronchiectatic abscess, is the result of an acute abscess and has been deliberately carried over into this stage, or it has not been diagnosed until the chronic stage was reached. Unless bronchoscopic treatment shows definite results, operation is indicated. The main cavity is usually sufficiently large and well outlined to be located fairly definitely by means of the X-ray. There is, as a rule, no septic state, and operation is therefore well borne. It is carried out under local anesthesia. One resects one or more ribs as indicated, removes the intercostal structures, and then enters the cavity either by means of a knife or a cautery. The cavity is laid wide open and drained, and the edges may be sutured to the skin in order to establish permanent drainage by means of a so-called lung-lip fistula. The continuous aeration brought about in this manner does away with all odor, expectoration stops almost immediately, and the discharge from the wound rapidly diminishes until there is just a slight amount of mucus, requiring a dressing every one or two days. Although the condition is not an ideal one, the patients are to all intents and purposes well, and they gain in weight rapidly. As the old cavity is lined with epithelium and communicates with one or more bronchi, it has difficulty in obliterating itself. Only the small ones eventually close, while the larger remain permanently unless they are closed by operation.

Bronchiectasis is still the most difficult suppurative pulmonary condition to treat, and the results of operative treatment are not encouraging. Complete extirpation would be the operation of choice were it not for the exceedingly high mortality. Its application is in those patients in whom only one lobe is involved; but unfortunately both lobes are frequently affected or the disease is bilateral in character. Extrapleural thoracoplasty done in one or several stages is applicable to those cases in which only one side is involved. Though it does not cure, it renders life much more bearable to those unfortunates. Cautery lobectomy is of late being praised as a curative agent and very good results have been reported, but hemorrhage and embolism are two complications which have to be reckoned with.

It has repeatedly been observed that bronchiectasis may begin as a localized disease in one lobe, and secondarily involves the other lobes. The early recognition of the disease, therefore, and treatment instituted at that time, either drainage or cautery lobectomy or complete extirpation, would offer the best chance for cure.

Suppurative processes are occasionally encountered in the mediastinum. They may be successfully attacked by way of the neck or from behind. It has been shown that even suppurations extending quite far down can be successfully drained from above, and as this approach is the easier one, it should be the one of choice. At any rate, an attempt should be made to save these patients and not to abandon them to their fate.

Pulmonary Tuberculosis

Tuberculosis in some of its phases is gradually being looked upon as a surgical disease, and the reports of the men who have done most in this field are quite encouraging. The thought underlying all these operations is to put the lung at rest. This may be accomplished in several ways, by artificial pneumothorax, by phrenicotomy, or phrenectomy, by apicolysis, or by extrapleural thoracoplasty.

Artificial pneumothorax is a procedure carried out by the medical men. It is indicated in about 10-15 per cent of all tuberculous cases, and should be resorted to in all patients in whom there has been no improvement with the usual medical treatment after about six months. It is chiefly of value in moderately advanced cases, and in those in which cavity formation is developing. It controls hemorrhage, diminishes toxaemia, and arrests the progress of the disease.

Phrenicotomy may be done as a preliminary to thoracoplasty or in conjunction with penumothorax in order to put the diaphragm at rest. It is carried out under local anesthesia, and is a comparatively simple procedure. A small incision is made on the side of the neck, behind the sterno cleido mastoid, parallel to the clavicle. The nerve is isolated behind the large vessels, lying on the scalenus anticus, and is then resected or avulsed. There is some difference of opinion regarding the value of this measure alone, but in conjunction with thoracoplascy it completely puts the lung at rest. Apiclysis is not used much, and is at times a dangerous operation. The object is to bring about collapse of an apical cavity.

Extra-pleural thoracoplasty is done under local or gas oxygen anesthesia, or a combination of the two. It may be done in one or two stages. Short pieces of the tenth to the first rib are removed. Most writers report from 20-30 per cent cures and improvement in many others, surely a most encouraging outlook. With the new rule in force in this state, permitting the admission of patients with pulmonary tuberculosis for operation to the wards of general hospitals, it is hoped that it may be possible to help many unfortunates who are unable to avail themselves of sanatorium treatment. The indications for operation are gradually being extended, and whereas in the beginning only advanced cases were operated on, as a last resort, so to speak, it is being recognized that the best results are obtained in earlier cases. The proper selection of patients is, of course, carried out with the assistance of experts in tuberculosis, for it is of the greatest importance to choose the proper time for operation and to carry out the various steps of surgical intervention in such a way as will most likely bring about a good result.

TUMORS

Tumors within the thorax may arise in the pleura, the lung, or the mediastinum. Those most commonly observed are secondary to primary lesions elsewhere, and do not come into consideration. Primary tumors of the lung are usually malignant and take their origin in the bronchial mucosa or in the lung parenchyma. Fortunately, they are not common. Very little progress has been made in the treatment of these cases, chiefly due to the fact that the diagnosis was made late, at a time when the surrounding vital structures had become involved. Nevertheless, several cases of successful removal are on record, and advanced cases have been relieved of distressing symptoms by a decompression operation or partial removal by means of the cautery.

Primary endothelioma of the pleura is likewise recognized late and is irremovable for that reason.

The use of the X-ray for diagnosis in all doubtful intrathoractic lesions cannot be urged too strongly, and it must be emphasized that exploratory thoracotomy should be resorted to more frequently. It is by these means that early diagnosis will be made and operability be found more often than is now the case. We do not hesitate to do an exploratory laparotomy in doubtful conditions; and why should not the same benefit be extended to patients with intrathoracic lesions? It is not right to resign patients to their fate until some effort has been made to save them. There are no standardized methods of procedure for these cases, each one has to be treated as seems best.

Under other intrathoracic tumors have to be considered lympho sarcoma, Hodgkins disease, adentitis of doubtful origin, dermoid cysts and goitre.

Lympho sarcoma arises in the mediastinum, is difficult to recognize and is usually so intimately connected with the surrounding structures that its removal is not possible. Decompression by splitting the sternum is the most that can be hoped for, perhaps combined with X-ray treatment.

Hodgkins disease responds beautifully to X-ray, and the pressure symptoms due to the presence of large nodes clear up promptly. The same is true of adenitis or granuloma of the mediastinum of doubtful origin.

Dermoid cysts, which reach a very large size, have repeatedly been successfully operated on by extirpation, or by marsupialization with gradual obliteration.

Intrathoracic goitre can be successfully removed by operation under local anesthesia in order to have the cooperation of the patient. To avoid unnecessary pressure on the trachea a vertical incision down to the sternum should be added to the usual transverse one. After bluntly freeing the tumor, which is sometimes quite difficult, it can finally be pulled out of the thorax during a swallowing effort.

ESOPHAGUS

Operations on the esophagus are among the most difficult in surgery. All the benign affections of the esophagus are amenable to treatment. Strictures and cardiospasm are treated instrumentally, perhaps aided by a gastrostomy. Various plastic operations for reconstruction of an esophagus have been devised and successfully carried out. Idiopathic dilatations may be overcome by one of several plastic operations. Diverticulae are successfully removed by the one-stage or two-stage method.

By far the most difficult and serious affection of the esophagus is carcinoma, for if left untreated, or if treated conservatively, or by means of radium or X-ray, the mortality is one hundred per cent. Surgery has a few successful cases tc its credit. The operation is a difficult one, and many dangers attend it. There is usually considerable shock and acute pneumothorax, empyema, mediastinitis, etc., have to be guarded against. There are two recognized methods of approach, one through the posterior mediastinum, which is extrapleural, the other transpleural. The latter gives better exposure and is, therefore, at present, the method of choice. It is not possible to go into the details of all the various ingenious methods proposed, and I will limit myself to the description of the technic proposed by Dr. Torek. It is, in brief, as follows:

An incision is made along the entire seventh intercostal space and then upward posteriorly at the angle of the ribs over the seventh, sixth, fifth and fourth ribs. They are divided and the intercostal vessels ligated. The chest is thus laid wide open. The lung is pushed aside and the esophagus with the tumor dissected free. The esophagus is then divided below the tumor, and the lower end inverted into the stomach, while the upper end with the tumor is thoroughly freed behind the arch of the aorta and drawn upward. Through an incision in the neck, in front of the sterno-cleido mastoid, it is then pulled upward and delivered on the chest. After removing the tumor, the free upper end of the esophagus is transplanted under the skin, bringing its open end to about the level of the second rib on the anterior thoracic wall.

The chest wall is then closed completely, or with airtight drainage, as indicated in the particular case.

With earlier diagnosis there is reason to hope that it will become possible to save a fair proportion of these patients.

THE RELATION OF UPPER AND LOWER RESPIRATORY TRACT DISEASES

By MORRIS E. NEWMAN, M.D., BUFFALO, N. Y.

IT is a very difficult problem to detail in a short paper the relation of diseases common in the nasopharynx and the associated sinuses to respiratory diseases, for they, in themselves form the first and one of the most important parts in the respiratory tract and derangement of either the anatomy or physiology of these parts has influence on the pathology of the respiratory system. The importance of studying these defensive arrangements and preserving them in full activity is emphasized by observations which show that most generalized diseases, especially in children, take origin from the respiratory tract, rather than from the intestinal, and these through the medium of the upper air passages.

The nose, being the first part of the respiratory tract, serves either as an aid to respiratory functions or as a hinderance. As an aid by its physiology, namely to receive the inspired air and by its mucous membrane to warm that air to near the body temperature. By its secretions to moisten it and in co-operation with the ciliated epithelium to filter out not only the dust in the inspired air but the incoming bacteria that are directed toward the larynx, trachea, bronchi and lungs. The strength of these lines of defense is shown by the arrest in the nares of various forms of bacteria as demonstrated by cultures giving various growths. Although they generally fail to infect their host, the organisms, trapped here, may retain their full virulence. The olefactory and sensory nerves of the nasal chambers assist in the defense of the organism by putting us on guard against evil smelling or irritating bodies, as demonstrated in the recent War by the detecting of gases which produced respiratory pathology.

There are many ways in which nasal pathology bears relation to the pathology in the balance of the respiratory tract, and for convenience and shortness I will subdivide them into congenital and acquired. Among the congenital, the most important is atresia of the nares, which prevents all breathing through normal channels and makes patient a compulsory mouth breather. Under the heading of acquired we have acute and chronic inflammations and deformities. Under the acute we include the common cold or rhinitis, ~~which~~ is an inflamation of the mucous membrane of the nares with swelling and secretion and if not impeded, travels by the ciliated epithelium to the rest of the respiratory tract. Diphtheritic infection most frequently has its origin in the nose and many cases of so-called cured diphtheria still act as carriers, by harboring the organisms in its passages. The same can be said of the other general infections principally influenza, measles and scarlet fever.

Of the chronic inflammations the two giving us most concern are firstly tuberculosis and secondary syphilis. Tuberculosis involving the respiratory channels, which is the most common type, takes origin in the intake of infected air. Those cases of good resistance and good nasal physiology escape deeper envolvement but in performing its function these organisms sometimes are virulent enough to set up a local tuberculosis in the nose, envolving cartilage and mucous membrane. This local envolvement may be carried downward at a distant time to the bronchi and lungs.

Syphilis manifests itself by bone destruction, commonly seen in the sadle nose or luetic ulcers. This inflammation is probably a secondary envolvement.

Deformities play an important part in the functions of respiration. The most common is a deflected septum which by its deflection presses on the turbinates to the side of the convexity and nature, trying to close in the large space on the concave side, produces a compensatory hyperplasia and hypertrophy, resulting in obstruction to the incoming air and preventing the normal physiology to be performed so that the normal warmed and washed air fails to reach the lungs for interchange of carbon-dioxide for oxygen. The obstruction prevents the normal secretions from exuding and causes them to trickle down to the nasopharynx and larynx. The sinuses are not properly aerated and their secretions are retained which later may become infected and set up a sinusitis. The obliteration of the olefactory fissure causes exaggerated efforts at inspiration and consequent deformities of chest and spine. Other deformities in the nose producing identical symptoms as above, are chronic hypertrophic turbinates, polyps, new growths and foreign bodies.

The accessory sinuses are namely the frontal, sphenoid, maxillary, anterior, posterior and anterest ethmoids. These are normal cavities in the skull, lined with mucous membrane and each emptying by their respect openings into the nasal chamber. Their function is believed to lighten the skull, warm the air, aid in phonation and maybe, the production of a bactericidal secretion. Due to their proximity to the nares and the predominance of many nasal deformities, these air spaces are frequently infected and many go on to a stage of chronicity and as such are frequently the etiology of unexplained cough, acute and chronic laryngitis chronic bronchorrhea, asthmatic attacks and recurrent outbreaks of broncho-pneumonia simulating pulmonary tuberculosis. Darling in 1909 proved, by a series of post-mortem examinations, that in a series of pneumonia cases the portal of entry was mostly an accessory nasal sinus. The writer would like to report two cases out of many cases illustrating these points. One a man with complaint of headaches, bad taste in the mouth and tickling sensation in the throat. Cocainization and suction produced a tablespoonful of old pus from the frontal sinus. After a few suction treatments the patient reported as being greatly relieved. The other an adult woman, who had a chronic cough for many months, which various cough mixtures failed to relieve. Examination of accessory sinuses revealed a right antrum filled with pus and a posterior ethnoiditis. Removal of the sinus infection has stopped her cough.

Lack of space necessitates the writer to enumerate the conditions present in the nasopharynx. Of prime importance we name adenoid growths, which is a noncryptic lymphatic tissue, located in he posterior nares, and enlargement of same gives symptoms as per nasal obstruction. New growths are sometimes seen and the writer mentions two cases seen abroad. One a young boy, age 17, with a fibroma in nasopharynx which increased in size and came through the spheno-palatine canal and grew to an enormous size on the left side of face. The other an angioma which looked like an ordinary nasal polyp, flopped back in nasopharynx. The boy came in for difficulty in breathing and pretty near went out without breathing, for when a snare was applied and closed the spurting blood ooked like a river. Many cases of carcinoma nd sarcoma from the spine are reported.

In the pharynx we have the associated masses of lymphatic tissue, known as Waldemyer's Ring, omprising the group termed tonsils. The palaine tonsils are masses of tissue between the anerior and posterior palatine muscles, surrounded by a capsule and frequently cryptic. Their exact unction is unknown but many believe that, they in their uninfected state, act as a filter to organisms n their way to the respiratory tract. The presnce of enlarged tonsils so commonly seen in hildren, prevent proper air currents from reaching the larynx producing inadequate hematosis. Tuberculosis frequently selects the tonsils but whether this is a primary envolvement by the organisms stopping there first, and then inhaled into the lungs or whether they lodge there later from the expectorations can not be said. Lues frequents this area and is mostly seen as the primary lesion due to unnatural practices or as the ulcerations of the mucous patch. Gummatous growths are reported and many cases of carcinoma of tonsils and adnexa are on record. Among the acute infections we mention acute tonsillar and retropharyngeal abscess, Vincents angina, mycosis and glossitis. The lingual tonsils are masses of similiar lymphatic tissue seated near the base of the tongue and cause pathology in the tracts below by their hypertrophy.

No paper on respiratory diseases would be complete without attention to the larynx. Among the acute inflammations are mentioned acute laryngitis, oedema, spasmatic laryngitis, diphtheria and among the chronic are congenital glottic stenosis, chronic laryngitis, laryngitis sicca, singers nodules, hypertrophic laryngitis, pachyderma laryngis and new growths. The benign common ones being papilloma, fibroma, lipoma and adenoma. The malignant are classified as to instrinsic, extrinsic and mixed, and are the same as malignant growths elsewhere.

Conclusion:

It is clearly demonstrated that there is a distinct correlation between pathology present in the lower respiratory tract as influenced by conditions present in the upper tract. This bears importance in considering treatment, as seeking the focus and treating that alone, may clear up the distant pathology. It is the author's purpose to bring forward these various distant upper tract conditions as an important addition to lower respiratory tract diagnosis and treatments.

UNUSUAL SHORT HISTORY IN PENETRATING GASTRIC ULCER—REPORT OF TWO CASES*

By HENRY A. RAFSKY, M.D., NEW YORK, N. Y.

A PENETRATING gastric ulcer is one which erodes one or more coats of the stomach wall with the formation of a pouchke bag on the edge of the stomach. This pouch is frequently surrounded by inflammatory tissue. Before the advent of the roentgen ray many of hese lesions were not recognized unless they were iscovered at the operating table or at postmortem. Recently, however, Einhorn,[1-2] Cole,[3] nd others have shown how easily these cases can e diagnosed by the use of the X-ray.

The usual conception of a benign penetrating astric ulcer has been that it must be preceded by long train of digestive disturbances varying from one or more months to several years. It has always been taken for granted that these lesions are chronic affections with acute exacerbations, occurring from time to time in the life cycle of the ulcer.

The history of an ulcer patient is of the utmost diagnostic value and is our sole guide as to the duration of the lesion. Penetrating ulcers of short duration without a previous gastric history are rare. After a thorough search of the literature I have been unable to find the report of one case of a penetrating gastric ulcer with a history of shorter duration than one month. Therefore, I thought it would be of interest to report two cases of penetrating gastric ulcer where the history of one was ten days' duration and history of the other fourteen days. Both of these patients were emphatic in their assertions that they never had any gastric disturbances prior to the onset of the present affection.

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* Read before Yorkville Medical Society, May 17, 1926.

Case No. 1.—Mrs. E. W., age 30, white, married, was first seen by me on April 11, 1924. The patient gave the following history:

Family and previous history negative. Appetite was always good and the bowels were regular. The patient never had the slightest gastric disorder until ten days previous. At that time, she began to complain of a sudden sharp pain in the epigastrium fifteen minutes after eating. The pain did not radiate. Sodium Bicarbonate relieved the pain the first few days and then the pain became so severe that hypodermic injections of morphine became necessary. There was no vomiting.

Physical examination showed that the patient was well nourished. The head and chest were negative. The abdomen was soft. There was marked tenderness in the epigastrium. No masses were palpable.

The systolic pressure was 120 and the diastolic 76. The gastric analysis showed free HCl=60; total acidity = 75; blood-trace. The string test was negative for an ulcer. The feces were negative for blood. The hemoglobin was 75%. The red blood cells were 3,550,000. The Wassermann was negative. The urine had a specific gravity of 1015, no albumin, sugar or indican.

A roentgen examination of the stomach was made on April 11, 1924. It showed a niche on the lesser curvature that was 0.3 c.m. high and 0.3 c.m. wide (Fig. 1). In order to preclude the possibility that functional spasm and not an organic lesion was the cause of this niche, I gave the patient atropine sulphate gr. 1/120 twice daily for three days and again took an X-ray. This series showed that the same niche was present o the lesser curvature (Fig. 2).

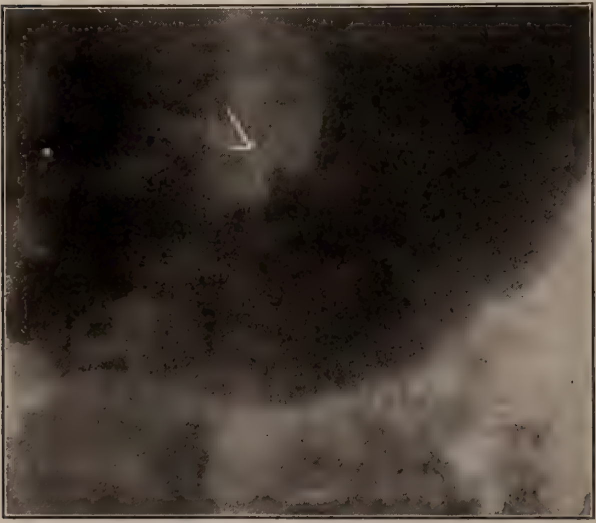

Fig. I.—Mrs. W., April 12, 1924. Before treatment. Niche on lesser curvature of stomach.

The patient was then admitted to the Lexington Hospital. I treated her with duodenal alimentation. An Einhorn duodenal tube was inserted April 22, 1924, and the feedings wer started the next day. The usual formula of on egg, eight ounces of milk and one tablespoonfu of lactose given every two hours was used for th feedings. A powder was given three times dail composed of Lupulin gr. 1/2, Calc. Magnes, g IV—Bism, Subcarbonate gr. xxx.

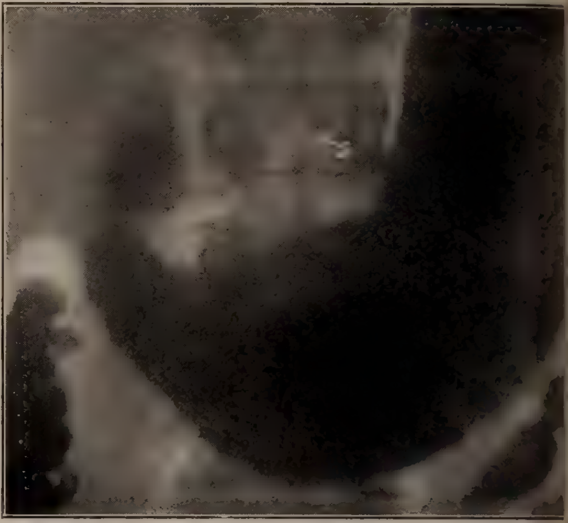

Fig. II.—Mrs. W., April 15, 1924. Before treatment— after atropine sulphate for three days—niche still present

Within twenty-four hours after the duodena alimentation was started the patient was fre from pain. The duodenal feedings were kept u for fifteen days. The tube was then removed an the patient allowed a gradual return to a norma diet, which took about two weeks from the tim the tube was removed.

Although the history of the ulcer was a ver short one, nevertheless I followed the same pla of treatment that has been used in peptic ulcer of long standing.

The progress of the lesion was checked u radiographically at various times. The last X-ra was taken June 12th, 1924 (Fig. 3). Althoug the patient became symptom free a short tim after the treatment was started the niche did no disappear before seven weeks.

The patient has been perfectly well since th treatment.

Case No. 2.—Mr. L. S., age 35, white, married consulted me on December 14th, 1924. His history was as follows:

Family and past history negative. The ma had always enjoyed good health. His appetit was good and his bowels were regular. H always ate and slept well and never had the slightest gastric discomfort. Fourteen days previou he had been fishing and he partook of some of the fish he caught. He was suddenly seized with severe pain in the epigastrium. The pain returned two hours after eating and was very sharp in character. Bicarbonate of Soda and food gave him temporary relief. He was continuously nauseated and vomited once. He tried to treat himself for "ptomaine poisoning" because he thought his trouble came from the fish he ate. Finally the pain became so severe that he sought medical advice.

Physical examination revealed a well nourished and well developed individual. The tongue was coated. The pharynx was somewhat anemic. The chest organs were negative. There was marked tenderness in the epigastrium but no rigidity.

The systolic blood pressure was 136 and the diastolic 92. The gastric contents were HCL= 55; total acidity 80, blood negative. The string test showed a blood strain 18½—20 inches from the lips. The urine and the Wassermann were negative. Occult blood was present in the feces. The hemoglobin was 78% and the red blood cells, 3,900,000.

An X-ray of the stomach taken December 14, 1924, revealed a large niche 0.8 c.m. wide and 0.5 c.m. high on the lesser curvature (Fig. IV).

The patient was treated at the Lexington Hospital with duodenal alimentation in a manner similar to Case No. 1. Within two days after the feedings were started the patient became symptom free. The progress of the course of the ulcer was checked up periodically from the time the treatment was started. The niche was present in all the roentgen examinations that were made up to Fig. V, which was taken ten weeks after the treatment was started. Here again the patient was symptom free a few days after the beginning of the treatment but it was ten weeks before all radiographic evidence of the ulcer disappeared. The patient has also been well ever since.

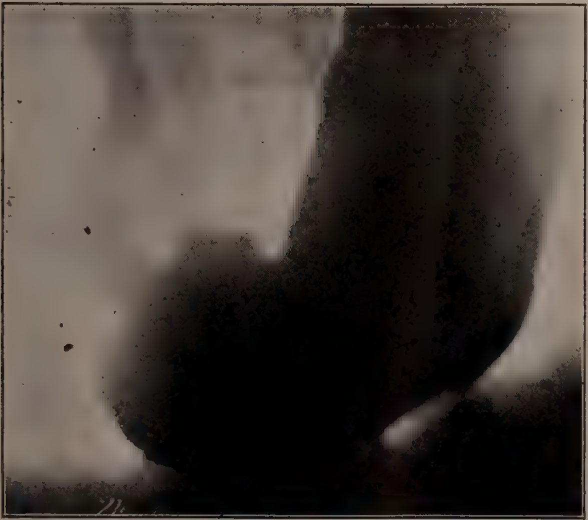
Fig. III.—Mrs. W., June 12, 1924. After treatment—niche disappeared.

Comment.—The pathological process of a penetrating gastric ulcer consists in the involvement of one or more coats of the stomach wall. The remaining coat or coats give way under peristaltic pressure with the formation of the pouch-like bag. The margins of the ulcer are usually calloused and very often the neighboring organs are involved.

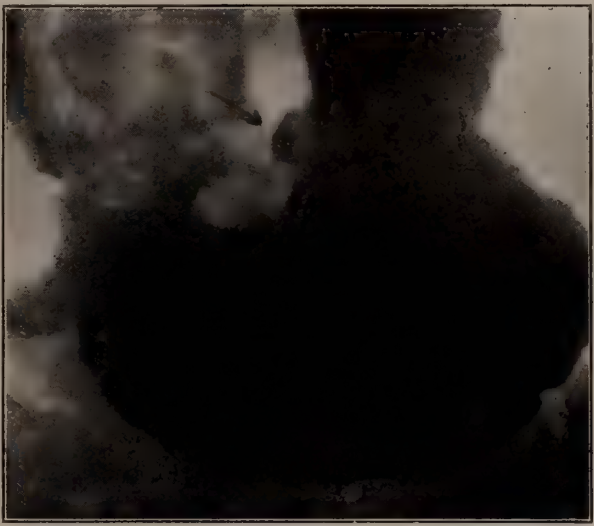
Fig. IV.—L. S., December 14, 1924. Before treatment—niche on the lesser curvature of the stomach.

Pathologically we cannot differentiate a penetrating ulcer of short duration with a negative gastric history from an acute exacerbation of a chronic calloused ulcer. This was brought out by a case Kantor[4] reported. His patient was sick only one month. There was no previous gastric history. Still when the resected ulcer was submitted to the pathologist the latter reported that the "miscroscopic sections presented the features of a chronic ulcer."

Radiographically we cannot differentiate the acute penetrating ulcer from the chronic calloused ulcer. Einhorn[1-2] has shown that we can outline the course and prognosis of a penetrating ulcer of long standing by means of the roentgen ray. He also pointed out how long it took for the niche to disappear. In the two cases I have reported it took seven weeks and ten weeks respectively before all radiographic evidence of the ulcer cleared up. This is about the average length of time it takes for a niche of a chronic calloused ulcer to disappear.

It has been the experience of all of us to witness an acute perforation or a severe gastric hemorrhage in a patient who never had any trouble with his digestive tract. Why cannot a penetrating ulcer occur without a previous history?

It is conceded by all that the history of an ulcer patient gives us an approximate idea of the duration of the affection. This gives rise to the following question: Must an ulcer exist an appreciable length of time, even though it lie dormant, before it can give rise to symptoms, or can an ulcer develop in a perfectly healthy individual who never had the slightest trace of gastric lesion?

Ashoff[5] states that a penetrating gastric ulcer can arise in a few days in the life cycle of a chronic ulcer. But this does not explain the presence of an acute ulcer in a patient who, to the best of our knowledge, never had a sign or symptom indicative of the existence of any such affection. Plaut[6] explains the presence of these ulcers as follows:

Plaut maintains that ulcer patients should be divided into two groups:

1. Ulcusträger or ulcer carriers.
2. Ulcuskranke—those that have clinical manifestations of an ulcer.

In the former are grouped those patients that go along for many years with an ulcer that lies dormant. The individual is symptom-free until some exciting factor arises. In the second group Plaut places those cases where the individuals have active symptoms as a result of the ulcer.

Plaut's theory is very interesting. It offers an explanation as to why a penetrating ulcer with a history of a short duration cannot be differentiated pathologically and clinically from a chronic ulcer. This is of the utmost diagnostic as well as prognostic importance. It follows, therefore, that these cases must be treated along same lines.

We must not minimize the patient's complaint because he never had any gastric disturbances before. The history should not mislead us. I am sure if we are on the alert we will find cases of this type of even shorter duration than those here.

SUMMARY.

1. Penetrating gastric ulcers with a history of short duration occur without a previous gastric history.

2. These cases should be treated the same as chronic ulcers.

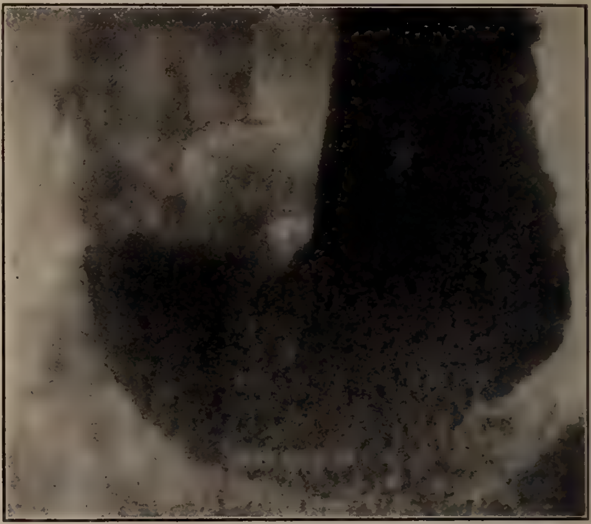

Fig. V.—L. S., February 28, 1925. After treatment—niche disappeared.

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A CASE OF POST-OPERATIVE PARATHYROID TETANY CONTROLLED BY THE USE OF COLLIP'S PARATHYROID HORMONE

By **ALFRED H. NOEHREN, M.D., F.A.C.S., BUFFALO, N. Y.**

THE occurrence of tetany following thyroidectomy is such a tragic condition and the treatment of the severe cases has been so unsatisfactory in the past that the following case in which the use of Collip's serum seemed to cure an otherwise hopeless case should be of interest. A few similar cases in which this serum has been successful have already been reported and this report is added to strengthen the evidence in favor of the efficacy of this rather recent therapeutic agent.

REPORT OF A CASE

E. W., a nurse by occupation, was first seen September 5, 1925. Her chief complaint was shortness of breath, coming on six months previously and getting worse. At about the same time she noticed that her neck was getting larger.

Her general health had always been good, except for an attack of tonsilitis two years ago. She had palpitation of the heart, subjective heat, and perspired easily. Her appetite was normal. She menstruated very irregularly, frequently skipping several months, but flowing profusely for seven days when it did occur. She urinated four to five times during the day and two to three times during the night. She said she was irritable, tired easily, and had poor emotional control. She had lost a little weight.

Physical Examination—The patient was slightly obese, weighing 162 pounds, and was quite "fidgety" during her examination. Pulse was 132, blood pressure 140/90, basal metabolism +50, (five days later +29). There was slight tremor of the hands, but no eye symptoms. The heart was regular, not enlarged, and no murmurs were heard. The urine contained no albumen or sugar.

There was a moderate enlargement of the thyroid gland, especially of the right lobe and isthmus. The consistency was soft and uniform and there was no deviation of the trachea.

No evidence of any tetanic irritability of the muscles was noted, although this was not definitely looked for.

A diagnosis of primary hyperthyroidism was made.

She was advised to stop nursing and was kept under observation. After two months, her pulse taken twice daily by herself ranged from 116 to 140. She began to feel "choky" and her thyroid had definitely become larger and firmer. She was started on Lugol's solution, grs. V, t.i.d., with the idea of preparing her for operation, but after a few days had another attack of tonsilitis, with temperature 103 and pulse 160.

On January 1, 1926, she was again started on Lugol's solution, entered the Deaconess Hospital on January 4th, and the following day a bilateral subtotal thyroidectomy was done. At this time her pulse was 96-120.

Operation—January 5th, 1926. Two hours before operation, scopolamin, gr. 1/300, morphine, gr. ¼, atropine, gr. 1/150 were given. Gas-oxygen anesthesia was given by Dr. Oscar Stover. The greater part of both lobes and most of the isthmus were removed, taking the usual precaution of leaving the postero-internal portion of each lobe untouched. The operation went smoothly, lasting one hour. The pulse went up to 155. The blood pressure at first went up, then came down slightly.

Post-Operative Course—There was no severe reaction, the highest temperature during the first 48 hours being 101, pulse 112.

On the morning after operation, on being asked how she felt, she said, "I am feeling fine, but look at my hands, I cannot open them." Both hands were held in the typical "accoucheur's" position and the skin was glossy. Constriction of the forearms increased this contraction and made it painful (Trousseau's Sign) and Chvostek's Sign (contraction of muscles of face on tapping facial nerve) was marked on both sides.

The specimen removed at operation was now more carefully examined, serial section being made by Dr. Theodore Mueller, pathologist of the hospital, but no trace of any parathyroid bodies could be found.

The patient was given calcium lactate, gr. X q. 4 h., and that afternoon the hands were perfectly relaxed.

January 7—Both hands flexed again, face swollen, some cramps in legs. Calcium lactate increased to gr. XX q. 4 h.

January 8—Condition unchanged, but that evening both hands were free and there was no sign of tetany.

January 9—Early in the morning patient had a severe spell of dyspnoea. Both hands were tightly flexed, muscles of neck, throat and chest were in a state of tetanic contraction, making breathing almost impossible, with constant painful twitching in various parts of the body. The condition of the patient was most pathetic and at times it seemed as though the end were near. After lasting about one hour, it was finally controlled by large doses of morphine.

During the eight following days that she remained in the hospital, she had four more similar attacks, though not quite as severe as the first one. In the intervals, her hands and feet were flexed most of the time, her face was swollen and Chvostek's Sign was always present. She was given increasing doses of calcium lactate, also calcium chloride, parathyroid extract and thyroid extract.

She left the hospital January 17 and improved slowly for a few days.

On January 22nd, she had another severe attack, followed by other attacks on January 29, February 9, February 10, February 13, and February 14. In addition to the other drugs mentioned, bromides and chloral were given. On February 20, Collip's Parathyroid Serum (Parathormone, Lilly) was first given, starting with 1 c.c. (20 units) hypodermatically daily for a few days and then ½ c.c. daily. From that time on she had no more attacks. All other drugs except calcium lactate were discontinued.

Beginning March 1, ½ c.c. of the serum was given at increasing intervals until on July 23 the interval was 12 days.

Until June 1, her hands still tightened up, especially when she became nervous, but since then they have been normal and on July 23 even her Chvostek's Sign was gone for the first time.

She went back to nursing on June 1 and has been perfectly able to do her work ever since.

Her wound healed up perfectly in record time and her pulse soon became normal, excepting during her attacks.

Unfortunately we were unable to get blood calcium determinations during her illness and the parathyroid serum had to be given cautiously to prevent a condition of hyper-calcaemia. On August 23, her blood calcium was 7.2 mgm. per 100 c.c.

Comment—The parathyroid glands were discovered by Sandstroem in 1880. The relation of the parthyroids to calcium metabolism was discovered by MacCallum and Voegtlin in 1909. Since then calcium has been the best remedy available in the treatment of parathyroid tetany.

Transplantation of parathyroids, except autotransplantation, has been without results. Recently Lahey[1] advised searching every thyroid removed at operation for parathyroids and, if found, immediately transplanting them into the sterno-mastoid muscle. The use of parathyroid extracts has also been unsuccessful.

With the above forms of treatment, calcium, parathyroid extract, and gland transplantation, the death rate has been very high. Thus Billroth reported 50%, and Grossman 25% mortality[2].

In 1925 Collip[3] extracted a hormone from the parathyroids of oxen by the use of which the blood calcium level in parathyroidectomized animals could be maintained and thus tetania parathyreopriva prevented or controlled. Its clinical use was advised in cases of tetany and reports thus far submitted, as the one above, seem to confirm clinically the experimental findings[4]. According to this evidence Collip's serum seems to be a specific in the treatment of tetany equal in value to the use of insulin in diabetes.

Fortunately tetany is a very rare occurrence following thyroid operations, at least among American surgeons. Thus Lahey reports only two cases in 3,100 thyroid operations. This is probably due to the fact that subtotal thyroidectomy is the operation of choice in this country, leaving behind the postero-internal portion of each lobe, which is in intimate contact with normally situated parathyroids. The occurrence of tetany is much more frequent where extracapsular thyroidectomy is done. Thus v. Eiselsberg reported 23%, and Grossman 30% of tetany after the bilateral operation and Reverdin 2.5%, and v. Eiselsberg 5% after unilateral operation.

Nevertheless, even in subtotal thyroidectomy and in spite of all these precautions, tetany will occasionally occur and for these reasons: In some individuals there is less than the normal amount of parathyroid tissue and any operative interference may cut off enough of its blood supply to cause tetany. Occasionally the parathyroids lie in abnormal positions, sometimes even being embedded in the thyroid tissue. In the case reported, no trace of parathyroids could be found in the specimen removed. We must assume, then, that the tetany was due to interference with the blood supply in a patient who, perhaps, was already deficient in parathyroid tissue. A routine preoperative blood calcium determination would make it possible to recognize such a deficiency before operation. In that case the patient could be prepared for operation by treatment with the serum until the blood calcium is normal and perhaps less thyroid tissue be removed than would otherwise seem indicated.

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MAIMONIDES' TREATISE ON HEMORRHOIDS*

By LOUIS J. BRAGMAN, M.D., SYRACUSE, N. Y.

Moses Maimonides, the peer of twelfth century physicians, was born in Cordova, Spain, in 1135, and died in 1204, leaving behind a written record of philosophy, religion, and medicine that serves to make him the greatest of great men of his time. At an early age he studied under distinguished Arabic teachers, becoming proficient in mathematics, philology, natural sciences, medicine, logic, and metaphysics. In 1165 he took up the practice of medicine in Cairo, Egypt. It was not long before he achieved unusual success by virtue of his remarkable ability as a practitioner, and in 1174 he was made private physician to the Vizier Alfadhel, declining subsequently a similar offer from Richard the Lion-Hearted, King of England.

His medical works reveal an extensive and varied range of experience. In the *Guide to the Perplexed*, a classical code of ethics, he devoted sections to dietetics, stating that the variety of food taken should not depend upon taste or caprice, but upon certain physiological principles aiming to enhance health and the usefulness of the body. In his Commentaries on the Bible he gave various medical opinions on the treatment of disease, quoting a writer to the effect that since God has put medicinal herbs on the face of the earth, no sensible man would neglect them, and adding that "like unto a murderer is the physician who refuses to tender his assistance in time of necessity, or who practices without due study of the ailment he is treating."

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* (Read before the Syracuse Academy of Medicine, March 1, 1927).

In his *System of Therapeutics,* based upon some thirty works of Galen, he stated that "in minor ailments Nature cures the body without the need of medicinal remedies if the patient only follows certain dietetic regulations." "When," he continued, "the services of a physician are required, he should see to it that he aids Nature in her beneficial course. Most doctors err in their treatment. In endeavoring to assist Nature they weaken the body with their prescriptions."

Similar valuable and practical advice can be found in other of his works, the complete list of which is long, and includes:

An imitation of and a commentary upon the aphorisms of Hippocrates; a treatise on the causes of disease, enumerating the etiological factors in various illnesses and logically correlating the cause and effect of disturbances of health; an Arabian pharmacopeia called *An Explanation of Drugs;* a Consultation on Snuffling in the Nose and Throat, and another Consultation on Accidents; a treatise on asthma, giving the symptoms and treatment, with various case reports from Arabian physicians; essays on sexual intercourse, medical consultation, gout, physiology, personal hygiene, stomach, and brains; and his two best known treatises, namely on Physical Hygiene and on Poisons, which have recently been translated into English. [1]

The medical works of Maimonides, despite their intrinsic worth, have received comparatively very little consideration in English. Originally conceived in Arabic, his many manuscripts have been translated into the Hebrew language, and to a lesser extent into the German and French. Steinschneider, the learned medical historian, has devoted a great share of his researches to rendering the texts of Maimonides into German. [2] Pagel [3] and Ratner [4] have similarly treated of Maimonides as a contributor to medical literature. Other studies from this angle are to be found by Max Kahn [5], Mendelsohn [6], Yellin and Abrahams [7], and in the Jewish Encyclopedia.

Although a careful study of these writings show a lesser degree of actual originality than scientific learning, they do demonstrate the fact that he was familiar to a marked extent with the older and reputable authorities. And similarly, although they also indicate his reliance on precedence, they show that he tested his remedies by actual experience and that he recognized how deeply physical conditions are effected by psychic causes. A consideration of his treatise on hemorrhoids will substantiate these assertions.

In the course of a search for original Arabic texts of Maimonides, H. Kroner, a German scholar of medical history, chanced upon a six octavo-paged manuscript of twenty-five lines to the page, which proved to be the oft-mentioned but little known treatise on hemorrhoids. With meticulous care he then presented a critical and comprehensive interpretation of this work, giving in addition copious notes and a Hebrew and German translation. The following material is based on this German translation, in Janus, volume xvi, for 1911 [8].

In the introduction to his study, which he calls "Hemorrhoids in the Medicine of the 12th and 13th Centuries," Kroner gives a review of the current knowledge of that ailment, leading up to an historical and scientific valuation of the contribution of Maimonides. An analysis of this treatise reveals at the onset some characteristics typical of many of the medical writings of the prince of physicians.

One recurrent feature is a short prayer to God, at the beginning and close of the essay, for he always kept close to the spiritual side of life. And another is his customary dedication to some distinguished person for whom the work was expressly prepared, as exemplified in the treatise on Poisons, on Physical Hygiene, Asthma, and Coitus. The inspiration for the work under consideration is revealed in Maimonides' introduction:

"A youth of prominent and renowned descent was afflicted with anal hemorrhoids which irritated him for a long time. He attempted to heal them in the usual manner with the result that the pain subsided, the swellings decreased, and the normal functions were resumed. But since they recurred many times, he desired to have them removed surgically, thus completely extirpating the cause of his sufferings to the extent that they would never return again."

Maimonides then informed his patient that all types of hemorrhoids were not amenable to operation, and in addition, even then they would frequently come back owing to the fact that the original cause still remained. He accordingly offered for his benefit a curative regime which could constantly be adhered to, and which was especially easy "for a coddled youth to follow."

The treatise, which was prepared by way of a prescription, is divided into seven chapters which take up pertinent phases in the manner of easing the burden of the *golden veins.* Not intended, the author explains, as a complete guide to health, it is nevertheless a valuable code for victims of this disease to follow.

In recognition of the fact that most illnesses hinge upon poor digestion, a consideration is first given to the regulation of the diet, which calls for four precautions, namely, in regard to the quantity and quality of the food, the sequence of foods, and the time for eating. Even good food is harmful if too much is taken. The appetite should never be fully satisfied. Poor food, even though perfectly digested, gives rise to bad blood. An excess of peppery foods, cucumbers, onions, garlic, cabbage, vinegar, and lemons should be avoided. Bread, meat, eggs, and honey are the safest kinds of food. Malodorous and decomposed foods are, in the words of Galen, as harmful as deadly poisons. Take lighter foods first, thus, stewed cabbage before eggs, eggs before fowl, fowl before mutton, and lemon before sumac or pomegranate. Drink cold water only about an hour after leaving the table. Eat only when hungry, take exercise before meals, and avoid all kinds of excitement, mental or physical, directly after meals.

These general rules of diet, Maimonides emphasizes, are of prime value, if adhered to, in lessening the possibility of hemorrhoids.

In logical order, he next discusses the foods which should be especially avoided. Inasmuch, he contends, as hemorrhoids for the greater part have their origin in *black bile,* those articles of nutrition should be shunned which tend to make the blood thick and *muddy*. For if the blood acquires this character, by force of gravity the sediment in it sinks to the lower parts of the body, and especially to the vessels around the anus, which eventually become permanently congested and enlarged.

The hemorrhoids that thus arise are of two types, those that bleed, and those that do not. The former state is more advisable, for thus a safety measure is afforded against the development of insanity, melancholy, and epilepsy. The second type should be opened to forestall these nervous ailments. But dietary precautions are better still. Foods which tend to form black bile by heating and thickening the blood are: beans, lentils, cabbage, melons, sumac, beef, goat's meat, salted meats, dates, old cheese, unleavened bread, waterfowl, brains of animals, and vinegar.

On the other hand, certain foods are beneficial in alleviating hemorrhoids, such as the broth and meat of fat fowl, yearling sheep, fat of roast loin, cakes made with egg-yolk, peas cooked in oil of almonds, Indian nuts, dried figs, and anise seeds.

In chapter four certain internal remedies are prescribed, to be taken in large quantities. A good preparation is myrobalan, an Indian nut, mixed with sugar and anise seeds. Another mixture consists of washed and ground iron slag, one and a half drams of which are mixed with wine. Mace makes a good drink for hemorrhoids. A special electuary which Maiomnides prepared for his patient contained myrobalan, kebulum, belliricus, emblicus, anise, bdellium, aristolochin, mastic, mace, and lepidium, ground together in specified weights, mixed with oil of almonds, and taken in broth of steer's tongue continually, e cept during extremes of weather. Arrazi, we a told, prepared a dose of one part each of myrob lan, kebulum, and emblicus, one half part in slag, two parts bdellium, mixed in garlic wat and rolled into pills.

Of the local remedies, oil of Indian nuts, cast oil, spikenard oil, and jasmine oil are effecti Bdellium and extract of lead are particularly pe erating. An effective clyster is made of tw ounces of garlic water, one ounce of celery wat oil of nuts, and oil of turpentine or castor o each one ounce, radishes, one ounce, mixed t gether, boiled, and used every two or thr months. A very good remedy is prepared b taking two ounces of one of the above mentione oils, one ounce of pomade of dates, and one oun of blue bdellium; these are heated over a gent flame and then pounded in a lead mortar, with quarter of a dram of saffron, in the sun for a entire day (the one who does the pounding si ting in the shade). The pain is readily eased this concoction is smeared on the "piles." B one should not nullify these methods by sitti unwisely on cold marble, or by douching the an with cold water, except in the summer.

Chapter six deals with methods of combatin the more severe types of hemorrhoids. If th situation is very urgent, and the patient ca stand it, bleeding is resorted to; but if the patie is too weak, cupping-glasses are placed betwee the hips, and in addition the internal and extern remedies are used. Another valuable procedu is to sit in warm water in which leaves of althe or melilotus or linseed or camomile or cottonsee have been steeped. A good local application consists of starch mixed with sesame oil, fat of duc or hen, and a little saffron. Another formul contains one ounce of oil of apricot seed, in whic are dissolved two drams of balsam, two drams o bdellium, oil of roses, egg yolk, fat of duck o hen, and saffron. Ibn Wafid boils one ounce o oil of roses, well perfumed, with three ounces o white wax. Arrazi kneads two drams of zin oxide and one dram of Indian lycium into an ointment made of Ibn Wafid's mixture. Avicenn had good results with a preparation made of tw drams each of serafinum, and bdellium, one dra of balsam, one half dram of opium, one and half ounces of oil of apricot seed, dissolve together over the fire, to which one-half of dram of powdered castoreum is added. Finally Maimonides states that the fat of crocodile mixed with oil of roses is said to be especiall alleviative.

The last chapter deals with a method of treating hemorrhoids by means of medicated vapors a not unusual procedure at that time. Some o the substances employed are sandarac, garlic seeds serpents' skins, colocynth, cottonseed, seeds o wild rue, cicuta seeds, long aristolochin, and the root of fenugreek. The technic is simple: Build a coal fire in a hole in the ground. Place over this a bowl that has a hole in its bottom the size of a nut, and make an embankment around the bowl so that the smoke will come out only through the small opening. Throw any of the above-mentioned ingredients on the fire, and when the smoke arises, sit on the bowl. This should be done three times an hour, and once a week as well as a precaution.

This is the substance of Maimonides' treatise on hemorrhoids. The regulation of diet, the listing of foods indicated and contra-indicated, the ocal and systemic remedies, the radical and conservative measures—all these bespeak a decidedly modern trend. And the entire treatise verifies Maimonides' own contention that the aim of the doctor is to prevent illness more than to cure it.

H. Graetz, who has written extensively of Maimonides in his *History of the Jews* asserted that he prescribed no recipe for whose efficacy he could not cite the judgment of the leading authorities. That he was not one to rely solely upon the opinions of others, his very large practice indicated. There is no doubt but that he tried and approved repeatedly the measures he recommended for the prevention and cure of hemorrhoids.

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SOME OF THE EARLY MANIFESTATIONS OF CORONARY DISEASE*

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INTRODUCTION: Atherosclerosis and occlusion of the coronary arteries has received so much attention in the literature lately that it is no easy task to add anything that is new to he subject. My excuse for adding to an already extensive literature is the frequency with which he early manifestations of this disease are overooked. Typical cases of coronary disease, especially occlusion, are so dramatic in their onset and o often tragic in their progress that the less outpoken signs may not be heeded, or they may be misinterpreted. Early in this disease the so-called linical picture of coronary disease is often conspicuous by its absence. Naturally therefore the iagnosis is not made unless one keeps in mind he fact that this disease, especially in its early eriod of development, often expresses itself in a izarre manner. For it is not uncommon to have atients who have disturbances of their coronary rculation, operated upon for gall-stones, or have heir chests strapped for pleurisy. One of my atients underwent prolonged treatment for peptic ulcer when he was actually suffering from oronary disease.

That there is no real parallelism between the inical expression of this disease, and the pathologic picture as found post mortem is known to l students of this malady. To be sure one often nds most advanced disease of the coronaries hich gave not the slightest inkling of its existnce to the clinician, death having occurred from n unrelated disease. The reverse, i. e., where e suffering of the patient is pronounced and relatively little pathology is found, is also true, but not with equal force. It is clear therefore that even with fairly advanced disease, and the best condition for observation, a clinical diagnosis of coronary disease is difficult and at times well nigh impossible. It is manifest that emphasizing the early features of this disease will serve to focus attention on the cardiac circulation at the time when medical management and supervision will do most good. When the heart is riddled with areas of fibrosis, aneurysm and pericarditis due to inadequate circulation in the coronary of long standing it is obvious that little may be expected by way of staying the disastrous end results. Once the stage of multiple infarcts in the heart muscle is reached the patient is beyond relief.

Before attempting to stress the early picture of coronary disease a brief definition of the term coronary disease will be given. Mention will also be made of some of the salient features of this disease as ordinarily encountered. No attempt will be made to cover this vast subject in any comprehensive way. On the pathology alone of this disease a number of good size monographs have been written, and the clinical side has a very voluminous and extensive literature.

Definition: Coronary disease may be defined as disturbances of the circulation of the heart with resulting ischemia of the heart muscles, temporary or permanent. It is usually caused by atherosclerosis and thrombosis of the coronary arteries or their branches. Pathologically there may be evidence of infarction either recent or old, in addition to various degrees of atherosclerosis and thrombosis of the coronaries themselves. At times thinning of the ventricle occurs. This may go on to aneurismal dilation and even rupture of the heart. Areas of pericarditis over the infarcted portions of the heart is a common occurrence. Clinically the symptoms vary a great deal. Sudden almost instantaneous death occurs when a large vessel is occluded or when rupture of the heart takes place. At other times symptoms are so mild in nature to warrant diagnosis of dyspepsia, myositis, or intercostal neuralgia.

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* Read before the Bronx County Medical Society, January 19, 1927.

Causation: Fascinating as it is, to speculate about the cause for things in general, the cause of this disease is no better known than the cause for atherosclerosis elsewhere in the body. Of the usually mentioned causes faulty diet, focal infection, alimentary toxic products, metabolic waste products may be dismissed as platitudes. It is possible that hereditary influences play a not unimportant role especially under the strain and stress of modern life. Syphilis, diabetes, among the chronic diseases cannot be entirely dismissed as contributing factors. Experiments with bacterial toxins have yielded no positive results. One must maintain an open mind as to the cause of this disease until better proof is adduced.

The age of the patient when coronary disease may occur is variously given by different observers. Comparatively young individuals may be afflicted. It is not uncommon to find some evidence of roughening of intima and even plaque formation as early as the third or fourth year of life if a careful search is made. In my experience a man 33 years of age was the youngest individual in whom a fairly severe attack of coronary disease occurred. The ages between forty and sixty yield most cases. The male sex appears to be more commonly afflicted.

Symptomatology: In a general way it may be stated that subjective manifestations of this disease predominate and they appear earlier than objective findings. Atherosclerosis is rather slow in its development and the earliest manifestation of its existence is pain. This pain may be slight almost trivial at the beginning and considered insignificant by the patient. *Pain by far is the most important single symptom of this disease.* The location, severity, character, and radiation of the pain varies considerably. Patients differ a good deal in their description of the pain. During the early stages of the disease they usually complain of (1) a dull ache, (2) a gnawing pain, (3) a sharp lancinating pain, short in duration, and coming on after exertion or meals. As the disease progresses they describe their pains as being pressing or choking in nature. In the very severe cases, a vise-like agonizing, through and through pain so severe that they are afraid to move is experienced, this is usually accompanied by a sense of impending dissolution. This latter is the angina pectoris of the older writers.

The location of the pain is most frequent in the precordial area. The dull ache, the gnawing pain, the choking and pressing pain, the boring pain, and the through and through pain is often limited to the precordium only. In the vast majority of cases however, the pain radiates into one of the following areas: (1) into the left shoulder, left arm, left wrist and left axella; (2) through and through to the back and left scapular region; (3) into the epigastric region; (4) into the base of the neck and suprasternal notch (the choking sensation is very frequent in the same area); (5) into the right shoulder and the right arm; (6) into the right upper quarrant of the abdomen (liver and gall bladder region); (7) into the back of the neck and base of skull. More rarely the pain radiates into the flanks, more particularly the left. Still more infrequently the pain may radiate into the thighs and legs. There may be local sweating associated with these attacks of pain. This latter phenomenon is said to be due to disturbances in the motor arc of the cervical sympathetic through which viceral cardiac pains are alleged to be carried to the brain and referred back into the various skin segments.

As to what significance to attach to the symptom of pain, the personality of the patient must be considered. Neurotic individuals naturally regard pain much more significantly than does the ordinary person. Nevertheless, a dull ache in the precordium which is aggravated by exertion, excitement, or a full meal, is an extremely valuable sign, occurring as it does, early in many cases. Such pain is almost invariably aggravated by walking, especially rapid walking, and is usually accompanied by extreme weakness in the legs. When the pain is associated with nausea it is almost pathognomonic of coronary disease. Next infrequency to the dull ache or gnawing pain is the lancinating pain which comes and goes but is aggravated by exertion or a full meal. The story usually is that in attempting to walk any distance the patient has to stop every block or so because of the discomfort in his precordium. Careful questioning often yields the information that slight pain preceded by many years a typical attack of coronary occlusion.

Even in this early stage of the disease, some patients will sense the gravity of their ailment. When they consult a physician they are sometimes told that they are nervous and to try and forget all about it. Similarly pressure pain, and pain with a sensation of choking are also disregarded by some medical attendants, who erroneously diagnose these cases as being due to globus hystericus. One ought to be mighty sure of his ground before thus designating cardiac pains.

A peculiar sensation of a combination of nausea and discomfort in the epigastric area or a fluttering sensation in the substernal region especially when associated with inability to perform accustomed tasks and coming on after a heavy meal, or periods of prolonged activity is another early signal that the coronaries are no longer adequate. Ordinarily when the coronaries are soft, elastic, and resilient, increased demands on the heart results in an increase in the circulation in the coronaries by reason of the stripping action of heart muscle (Wiggers). When the walls of the arteries become calcified and rigid this stripping action and consequent increase in blood flow, no longer takes place. The viscero cutaneous reflexes of pain accompanied by nausea, and weakness, and a sense of air hunger then becomes manifest.

Another mode of onset of this disease is a tendency to sinking spells, or spells of extreme weakness associated with a peculiar empty or vacant or fluttering sensation in the precordium. It is surprising to see how often the story of repeated attacks of weak feeling in the precordial area especially when the subject is a female, is dismissed as being irrelevant and unimportant. While it is undoubtedly true that many women are subject to fainting spells and weak spells who have no demonstrable organic disease one should at the same time bear in mind that such attacks may be the first indication of profound disturbance in the coronaries. Other evidences of heart failure are most often entirely lacking. Unlike heart failure due to chronic valvular disease and so called cardio renal disease with or without hypertension symptoms of congestive decompensation are usually not present here. If one looks for confirmatory evidence of failing circulation in other organs, such as enlargement of the liver, pulmonary stasis ascites or oedema of the lower extremities one will be disappointed. Indeed, even orthopnoea is usually absent and at times even in the presence of occlusion of a fair size vessel. Nor is dyspneoa an outstanding feature of this disease. However, one is not deprived of helpful suggestions when a general survey of the patient is made. Departure from the normal color, such as pallor of the lips, face and hands, and mottling of the forehead and lips are extremely valuable aids in the early diagnosis. Dusky cyanosis and ashen gray hue to face and hands are later manifestations. Evidence of arterio sclerosis elsewhere in the body especially in the fundi, radials, dorsalis pedis, posterior tibials and temperals are helpful in demonstrating the tendency of a given patient towards atheromata. In some cases intermittent claudication of the lower extremities may exist at the same time as intermittant claudication of the coronaries. Confusion should be avoided between the extreme weakness in the lower extremities consequent to coronary disease and the pain in the lower extremities due to ischemia because of local atherosclerosis.

In addition to the pain and pallor, immobility on the part of the patient is rather characteristic of this disease. During all stages of this disease when a paroxysm occurs the patient holds himself still and refuses to move or be moved. This sensation on the part of the patient probably arises from the subconscious and is an instinctive expression of self preservation. One has but to think of the gyrations, gymnastics, and distortions of the patient who is suffering from either renal colic or gall bladder colic to profit by the comparison. In this disease even in the face of very severe pain the patient holds himself quiet and wishes to be left alone. He assumes a rigid almost breath holding attitude with the possible exception of putting his hand where the pain is most severe. One can't emphasize too forcibly that the triad of pain, pallor, and immobility even when relatively slight are sufficiently to make a diagnosis and that in the face of normal graphic findings. In fact graphic methods are not very helpful in this disease.

When in the presence of the above symptoms one finds an appreciable fall in the blood pressure, the diagnosis may be said to be clinched. This is especially true when the color manifestations are marked. It may be profitable perhaps to stress again the mottling of the lips and the forehead as a very valuable diagnostic sign. An ashen gray appearance of the patient is very characteristic, but that occurs late in the disease. Mottling of the lips, on the other hand, may be and often is an extremely early phenomenon. Mention must also be made of another valuable sign, and that is muffling of the heart sounds. And while this is usually a late occurrence, at times it may make its appearance early. The same holds true for a pericardial friction rub. It is usually due to occlusion of a fair size vessel with resulting infarction of the heart, but once in a while it occurs rather early in the disease. Tachycardia, leukocytosis and a rise in temperature are late manifestations of the disease, and are only mentioned here to complete the picture. If one waits for them to appear, one may not have the privilege of making an early diagnosis. Head zones of hyperesthesia in the skin have not been present often enough to be of material help. When they do occur, however, they may be regarded as additional evidence.

Case Reports.—It has been my good fortune to observe some of these suffering from coronary disease from the very beginning of their ailment. I will relate some of their histories in brief, so that we may gain an insight into the difficulties of early recognition of this disease.

Case 1.—W. S., age 50, occupation, insurance agent, came to see me in October of 1921 complaining of slight pain in the precordium and just below the right clavicle. This pain was especially annoying when walking and became worse on climbing stairs, weakness in the legs was a frequent accompaniment of this pain. A similar sensation was experienced after a heavy meal. Physical examination yielded no special information except bad teeth and muffled heart sounds. There was no evidence of emphysema (this must always be searched for in order to attach significance to muffled heart sounds). His blood pressure was 140/80; there was some evidence of arteriosclerosis in the fundi oculi. On being told the probable nature of his disease which I then believed to be coronary sclerosis he was skeptical and disappeared from observation. Subsequently, he returned and told me that several physicians pronounced his heart to be perfect. He was treated for rheumatism, dyspepsia, and gall stones. He subsequently developed all the classical signs of coronary occlusion including leukocytosis and pericarditis. He died suddenly, January 17, 1927, with an attack of coronary occlusion.

Case 2.—W. P., age 47, storekeeper, came under observation in August of 1926. He gave a history of having been treated for stomach trouble which was rather persistent. Questioning yielded the information that there was no relationship between his indigestion and the ingestion of food. Various dietary modifications gave him practically no relief. His present attack began 11 days previously with pain in the epigastric region which did not radiate. The pain gas gnawing and pressing in character and became worse after a full meal or exercise. A strict milk diet and medicine prescribed by another physician gave no relief.

The physical examination revealed the following: His expression was anxious, his temporal arteries were visible and moderately sclerosed. His heart sounds were distant; there was no evidence of enlargement on percussion. Blood pressure was 155/80. He was put to bed and was given nitroglycerin. His dyspepsia promptly disappeared. His blood pressure came down to 120/80. At present he is very comfortable except when he attempts to walk any distance or when he overfills his stomach.

Case 3.—Mrs. S. F., age 41, came under observation December of 1925, complaining of repeated fainting spells and weakness for the past month. Her previous medical attendant diagnosed her case as hysteria. Careful questioning revealed that she had been having a dull ache in her precordium for about six months. This pain was aggravated by work or worry. The examination disclosed a woman rather anxious in appearance, afraid to move in bed, with pale cyanotic lips. In addition there was some mottling in her lips and forehead. Her heart sounds were hardly audible. Her blood pressure was 90/70. I kept her in bed for a number of weeks. She has since had several attacks of angina pectoris, so diagnosed by two different physicians who were called in the early hours of the morning to aid her. Undoubtedly, the fainting spells that she had in December of 1925 were due to disturbances in the coronary circulation.

Case 4.—Mr. S. A., age 66, realtor, came under observation in May of 1919. He complained of pain in his precordium and epigastric region. These attacks of pain usually came on about one o'clock in the morning. He was wont to retire about 11 o'clock, at which time he was accustomed to take a sandwich and a glass of milk. He attributed his attacks of pain to his constipation and disturbed digestion. Careful observation revealed that he would get attacks of pain on attempting to walk rapidly or following a day of worry and excitement. I observed him in the hospital for a period of three weeks during which time complete and thorough investigation of his gastro-intestinal tract was made. No abnormalities were found. Various dietary restrictions were of no avail. Complete rest in bed, however, together with large doses of bromides gave him almost complete relief. During his stay in the hospital I was fortunate in being present and witnessing one of his attacks. His appearance was so characteristic that I was able to make a diagnosis of coronary disease. In 1921 he had an attack of pain in his epigastric region which was diagnosed cholelithiasis. He was removed to a hospital for operation, but he declined consent. In 1923, while in the country, he had more pain and the medical attendant at the time made a diagnosis of carcinoma of the stomach. Early in 1925 he had a typical attack of coronary occlusion with leukocytosis, tachycardia, fever, pericarditis and cadaveric appearance from which he recovered. He succumbed in June of 1926 to a similar attack.

Case 5.—Mrs. H. K., 61, housewife, married, came under observation in November of 1923. She complained of pain in her left wrist and pain in her back in and about the angle of the left scapula. This pain was associated with definite nausea and would come on more particularly after walking or carrying of weight. She gave a history and had some of the physical signs of an old tuberculosis lesion in the left upper lung. I was, therefore, loath to make a diagnosis of coronary disease until activity in her lung with pleuritic pain could be ruled out. Examination of her sputum was negative repeatedly. Sometime subsequently she developed a very sharp attack of pain in her precordium which radiated to her back and into the left axilla. Associated with this there was pallor and sweating limited to her chest and neck. (This is a very interesting vaso-motor phenomenon in this disease.) She has since developed typical syndrome of coronary disease. She is unable to walk for more than a half block without experiencing sharp precordium pain.

Treatment.—There is no therapeutic panacea for this disease. It is not known how to prevent the change in the wall of the arteries of the heart. If an early diagnosis is made, one may be able to give symptomatic relief and undoubtedly prolong life. It is not my intention to go into any detail as to symptomatic treatment. This must be obvious to any well trained physician. Nevertheless, one may be permitted to stress certain general principles.

Relaxation.—The patient must be taught the art of relaxation. He must be taught to assume a philosophic attitude towards life and he must be taught to understand that the savage life of this civilization, more particularly city life, will only get him into an impasse. The futility of the hustle and hurry and the harmfulness of relentless ambition in whatever field must be pointed out to him. He must be helped to read, to rest and to cultivate some intellectual hobby. Early in the disease, bed rest is quite essential. Later, when he improves, the curtailment of the hours of work and the advisability of frequent vacations must be impressed upon him. If the patient is obese it is a good plan to make him reduce in weight. Meals should be small and frequent. Of the drugs, it is but necessary to mention a few that may be used. The group of vaso-dilators, more especially nitro-glycerine and erythrol tetranitrate, are valuable. Amyl nitrate may be used during an attack of severe pain. Alcohol in the form of wine in moderation has been found most useful by many who have had considerable experience with this disease. It probably acts on the brain, permitting the patient to become more or less relaxed and perhaps dulling the driving power which most of us possess to an abnormal degree. The bromides are equally valuable in releasing the patient from a too active mentality. Digitalis is very often used in small doses. Its advisability in this class of cases is a moot question. In my experience small doses have been found beneficial to most patients. Morphine and its derivatives have to be employed in many of the cases and should not be withheld. Diuretin and other members of the caffeine group so highly recommended by some, have not been found of particular value in the majority of cases. Once in a while the response to diuretin is remarkably good and in that event it may be continued over a long period of time. Enphylin is another drug that is often useful.

Conclusion

1. Coronary disease is not a rare disease and may occur comparatively early in life.
2. Pain, especially when associated with pallor and immobility, enables us at times to recognize this disease relatively early.
3. Mental and physical relaxation and curtailment of all forms of activity are the objectives to be attained in the management of this disease.

THE KAHN PRECIPITATION TEST FOR SYPHILIS IN COMPARISON WITH THE WASSERMANN RESULTS

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THROUGHOUT the medical world today the Kahn precipitation test for syphilis is attracting much attention. Numerous articles have appeared in the medical literature during the past few years on the Kahn test. There has been both praise and criticism, although the recent reports are almost invariably in favor of this test as compared with the Wassermann. Laboratories all over the country are now doing the test, either alone or in conjunction with the Wassermann. On December 31st, 1925, the United States Navy adopted the Kahn test as the official method for the serum diagnosis of syphilis. The Laboratories of the State Department of Health in Michigan have replaced the Wassermann by the Kahn precipitation test.

Various workers have attempted to perfect a precipitation test that would be practical, of these the Meinicke and Sachs-Georgi are probably the most well known. Not one of the tests, however, has received universal application as they have all required more or less incubation to produce precipitation.

Kahn has based his test upon a sound principle, every step an observed fact. The success of the test depends not on incubation but upon concentration of the ingredients, namely the patient's serum, antigen, and normal salt solution.

In this test the stronger sera show complete precipitation in about 15 seconds and the weaker sera in approximately two minutes after mixing serum with antigen dilution.

Briefly the test is performed in the following manner: The blood serum is inactivated in a water bath at 56 c. for 30 minutes. Into three tubes are placed .05, 0.025, and 0.0125c.c. of antigen dilution. Then to each of the three tubes are added 0.15 c.c. of inactivated blood serum.

The tubes are then shaken vigorously for two minutes and then 0.5c.c. salt solution is added to each tube after incubating for 15 minutes. Again shake for several seconds. The tubes are then allowed to stand at room temperature for about five minutes when they are ready for reading.

It should be said here that the test is reliable only when performed by a competent serologist. Although it appears to be very simple it is not an office procedure.

The advantage of this test over other precipitation tests and the Wassermann reaction are that if there is the slightest suggestion of error the test can quickly be done over again. There are no chances of bacterial contamination interfering with the readings which sometimes result from long incubation; in emergency cases such as blood transfusions, it is of utmost value to the clinician, more so than the Wassermann can ever be. The quantitative test cannot be applied to all sera coming to the laboratory for examination only those giving four plus reaction with the routine test. The results of this procedure indicate the relative number of syphilitic reacting substances in the serum. It can readily be seen that some sera have a greater number of syphilitic reacting units than others. Some precipitates larger than others are commonly seen in four plus reactions. In other cases they are more flocculent in appearance. The serum in a given case may show for example 200 reacting units before beginning treatment and 40 units after the completion of the course of treatments. The routine test would still be four plus, the reduction from 200 to 40 units being a helpful guide to the physician.

Kahn (1) has determined the unit of reaction in the following manner: Complete precipitation resulting from 0.15c.c. serum with 0.0125c.c. standard antigen dilution as a constant with varying dilution of a given syphilitic serum with salt solution, the number of reacting units are determined by multiplying the maximum dilution giving a definite precipitate, by four. If 1:50 is the highest dilution in which a serum gives a definite precipitation, the serum contains 4 x 50 or 200 units.

The comparative findings between the Kahn test and the Wassermann reaction as observed by different workers is intensely interesting. The majority of sera showing disagreement are either very early cases, neurosyphilis, or old treated cases. Kahn (1) reported comparative findings on 101,200 sera. 43,030 tests performed by his earlier method showed 94.17% absolute check, 5.08% relative check, and 0.74% showed no check. The remaining sera or 58,170 performed by his present method showed an absolute check of 97.64%, a relative check of 2.15% and no check in 0.21%.

Houghton, Hunter, and Cajigas (2) in their communication reported 13,971 comparative Kahn and Wassermann reactions. Of this number 898 were positive with both the Kahn and Wassermann, 11,801 were negative with both tests and there were 56 disagreements.

Schiff (3) reporting on 266 comparative tests found major disagreement in 24 or 9%. These were old treated cases with the exception of four which were primary. It has been observed that the Kahn test is more sensitive than the Wassermann in treated cases and in the primary stage of syphilis.

Our own series of 359 tests compared with the Wassermann results from the State Laboratory at Albany show 339 or 94.42% agreement and 20 or 5.57% disagreements.

Three of the sera showing disagreement were positive with the Kahn and negative with the Wassermann reaction. One was a case of neurosyphilis which had been treated, one was a primary case of syphilis and on the other no data was obtained. The remaining seventeen sera were negative with the Kahn and positive with the Wassermann reaction. Seven of these were old treated cases, three were cases of neurosyphilis which had received treatments, two were primary, one showed no clinical indication of syphilis, while no history could be obtained on the remaining four sera.

SUMMARY

The Kahn test is a practical precipitation test. It is reliable when performed by a competent serologist. The majority of discrepancies between the Wassermann reaction and the Kahn test occur in the treated cases. The Kahn test is slightly more sensitive than the Wassermann in treated cases.

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For list of officers of County Medical Societies, see the JOURNAL, April 15th issue, page xxx,

THE NEW OFFICIAL YEAR

The close of the Annual Meeting of the Medical Society of the State of New York was marked with the assumption of their duties by a new set of officers and committeemen, yet the change is not violent, and the affairs of the Society will go on without a change of policy, for the personnel will not be greatly changed. There will be a rearrangement of duties, and a broadening of work; but the activities of the State Society have become so comprehensive that there is need that every officer who has completed his term of duty should be ready to continue in the service and to give the society and the public the benefit of his experience. There is also need for additional officers and committeemen, who may be found among the workers in the County Medical Societies and District Branches. Enlistment in the activities of the component societies will find its fuller fruition in the broader field of the State Society.

JAMES E. SADLER.

REFLECTIONS ON THE ANNUAL MEETING

One of the duties of the editor is to report impressions gathered in the corridors of the hotels and the lobbies of the meeting rooms. Every officer and committeeman was besieged with questions concerning every conceivable phase of his activity. It was gratifying that usually the questions could be answered by reference to some report or article that had appeared in this Journal, for the Journal is becoming more and more the organ of the Medical Society of the State of New York, in fact as well as intention.

The annual meeting affords the opportunity for getting information of the affairs of the society; and inquiries were heard as to why certain measures were not brought up for discussion, for example the activities of the Committee on Public Relations. The obvious reply of course is that the activity is new and the field is broad, and controversial; and moreover the whole subject is in the stage of development and investigation. Moreover, the subject is covered in the annual report of the committees and officers. Still the suggestion was heard that it might be well to have a general session in which two or three committees might present the broad principles of their work.

Another question that was frequently discussed by groups in the lobbies was the annual banquet. The attendance this year was only about 150, many of those present being women. The question was asked "Does it pay to have a banquet when it is attended by only ten per cent of these at the meeting?" While it is true that a dinner is one of the best promoters of enthusiasm, yet there must be an occasion for it and a special end in view, which seemed to be lacking at the banquet in Niagara Falls.

The same question was asked concerning the annual meeting that was held on Wednesday evening. Although a large auditorium seating a thousand persons had been provided, the total attendance was less than forty, including a dozen ladies. The question was naturally asked, "Why go to the trouble and expense of obtaining a large hall and securing noted speakers, when so few members care to attend the meeting?"

The charter of the society requires that one annual meeting be held, but there is no restriction as to its time or nature. The suggestion was heard that the society revert to the former custom of holding the annual meeting immediately after the adjournment of the House of Delegates. This would put it in its natural time at the opening of the general sessions of the society.

A successful innovation at a state meeting, was the smoker and entertainment given to the commercial exhibitors. The meeting developed an unexpected cordiality on the part of the manufacturers and dealers, and elicited words of unaffected praise for the friendly attitude of the officers of the State Medical Society toward advertisers. Physicians are dependent on instrument makers and drug manufacturers, and the Journal is dependent on commercial advertisers for a large part of its income. Doctors want the help of the commercial men, and the business houses must have the good will of the physicians. It would seem to be the most natural thing in the world that the two groups should get together in close cooperation; and it was a surprise to hear the advertisers say that the spirit of cordiality of the State Medical Society was almost unique in their experience.

The advertisers followed up their remarks with the practical suggestion that a section be arranged for the exhibitors. The tentative plan is that a meeting room be provided, readily accessible, in which the advertisers may demonstrate their wares by talks, lantern slides and clinical demonstrations. Each advertiser who wishes to make use of the room would submit a copy of his talk and a plan of his action, and would make his exhibit the equal of the scientific sections in ethics and literary quality. The talent to conduct an exhibitor's section certainly exists among the exhibitors, and competition among them will impel them to do their best.

The American Medical Association and some of the State Societies provide rooms in which pictures, both movies and stills, may be shown, and repeated as often as is necessary. The suggestion has been made that this feature be a part of the annual meeting. It could be conducted in the same room with the commercial exhibit section.

The multiplication of medical societies has become so great that a physician must often limit his attendance to those which are of peculiar interest and helpfulness to himself. There are national societies for specialists, and conferences of public health workers. The managers of hospitals meet to discuss their administrative problems, and voluntary health associations hold sessions which are designed to entice physicians. However, the fundamental medical organization is the county medical society, representing that specialty known as general practice. The last meeting of the Medical Society of the State of New York appealed especially to the family physician, for it emphasized those duties which are common to every doctor who practices medicine in any form.

THE AMERICAN MEDICAL ASSOCIATION

The New York State Delegates to the American Medical Association report that the national meeting in Washington, like the state meeting in Niagara, was characterized by harmony and action.

The daily papers gave an unusual amount of space to the proceedings. One issue of the New York World, for example, contained four separate articles on various subjects that were under consideration by the Association. Among them was an excellent report of the action in regard to prescriptions for alcohol. The Association had stated the general principle that Congress was exceeding its authority when it limited a physician in the use of any therapeutic agent, and that physicians should be free to prescribe alcohol according to the needs of their patients.

The date of publication of this issue of the Journal comes too early to permit of printing an account of the national meeting, but an outline of the actions taken will appear in the June fifteenth issue.

A NEW TEST FOR DRUNKENNESS

The Journal has called attention to the need of scientific research into the nature of alcoholic intoxication, and the development of tests for drunkenness which can be used by average physicians. The daily newspapers have stated that such a test was reported at the meeting of the American Medical Association by a worker from the University of Cincinnati. He devised a rapid method for determining the percentage of alcohol in the breath collected in a rubber bag, and he correlated the percentage with the results of psychological tests made on the patients. He had examined more than five hundred persons whom the police had suspected of having alcoholic intoxication, and his results seem to indicate that the amount of alcohol in the breath indicates the degree to which the brain is affected by the alcohol. If the experiments and findings are confirmed, and a chemical test for mental incapacity is developed, the legal procedure in cases involving intoxication will be simplified and placed on a scientific basis.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

"*The Principles of the American Medical Association*: Time has abundantly justified the prophecy contained in the following editorial from the June 1902 issue of this Journal:

"Nations, governments and societies owe their stability, strength and progress to the association of individuals whose aims are worthy, whose aspirations are high, whose designs are wise and whose purposes are steadfast, who thus may hope to reach the goal of their ambition and win the object of such organization.

"How does the American Medical Association respond to this test?

"1. Worthy Aims: The union of all the members of our noble profession of every State and Territory in a representative society for the scientific study of all that relates to our profession, the public welfare and the nation's good, as well as the cultivation of socical good fellowship.

"2. High Aspirations: The attainment of the highest ideals in medical education and practice, and the application of the "golden rule" in dealing the one with the other.

"3. Wise Designs: The presentations at the annual meeting and through the columns of the Journal, free from all sectarian narrowness, of the results of individual efforts and the latest progress in our arts.

"4. Steadfast Purposes: The indefatigable pursuit during the past fifty-four years of these ennobling precepts has added constantly to our numbers and influence, and advanced our knowledge and the scientific character of our work, which is studied and assimilated by our brethren throughout the world."

MEDICAL PROGRESS

The Nature of the Glossitis in Pernicious Anemia.—J. P. Schneider and James P. Carey (*Minnesota Medicine,* April, 1927, x, 4) have verified Hunter's clinical observations on the tongue phenomena in pernicious anemia by applying the biopsy method, making the same histological observations that he had made in the dead. These studies show that mucosal lesions of all degrees of severity exist, from papillitis to necrosis and atrophy; that in the neighborhood of the active lesions there is small-celled exudation, and proliferation in the tissues and walls of the vessels; that the mucosa and submucosa harbor streptococci "staining badly with Gram's." In a total of nine biopsy specimens from eight patients ill with pernicious anemia, studied by the authors, all yielded *Streptococcus viridans* in pure culture, while in five controls streptococci were absent. These findings suggest strongly that this organism is responsible for the anemic lesions of the tongue during life. That the anemia *per se* does not act as a predisposing or favoring factor for the secondary invasion of the tongue is readily determined by the simple clinical observation that the tongue symptoms are antecedent to the anemia. Furthermore, during the course of the anemia it is a recurring observation that a glossitic attack will precede for a week or ten days a drop in the blood values. Schneider during the past twelve years has studied 450 patients with pernicious anemia, many of whom are still under observation, and is conducting further studies as to the rôle of *Streptococcus viridans* in this affection.

Notes on Sickle-Cell Anemia.—George S Graham (*Journal of Laboratory and Clinical Medicine,* March, 1927, xii, 6), like other investigators, has never found this anomaly in persons other than full-blooded or part-blooded negroes. It may be found in individuals who are well and strong and in whom it is the only abnormality of the blood. In the majority of patients, however, the common symptoms are anemia, general bodily and mental underdevelopment, epigastric pain, low grade gastroenteric disturbances, muscular or arthritic pain, greenish coloration of the sclera, and sometimes general lymphoid enlargement. There may be slight enlargement of the liver. The urinary findings are usually low specific gravity, albuminuria and possibly cylindruria. Urobilin is usually present. Bilirubinemia is common in well developed cases. It is of particular interest that exacerbations of the anemia may follow exposure to cold or dampness; they may perhaps be brought on by overexertion. Patients with this type of anemia are peculiarly liable to respiratory tract infections. The blood findings are usually an elevated white-cell count, a few myeclocytes, eosinophilia, and, during exacerbations, a high percentage of reticulocytes with large numbers of nucleated red cells. Phagocytosis of the red cells by circulating endothelial leucocytes is common. Among the author's 58 patients only two were over fifty years of age, the majority being in the second and third decades. Among 608 medical, surgical, and obstetrical patients in the colored wards of a county hospital the anomaly was demonstrable in 7.2 per cent. In an earlier series of 250 patients 5.2 per cent. were "sicklers". Syndenstricker found an incidence of only 0.25 per cent. This discrepancy is probably due to the fact that a thin coverslip may elicit sickling while a thick one fails to do so. Graham did not observe sickling in red cells that had been received into large volumes of various isotonic solutions, when set up in high dilutions. The red cells have an increased resistance to the hemolytic action of hypotonic salt solutions. Their sedimentation rate is undoubtedly increased. Chemical studies of the blood showed the nitrogen values to be normal; the chlorides (calculated as sodium chloride) showed an average of 501 mg. per 100 c.c. of blood; calcium averaged 8.33 mg.; inorganic phosphorus ranged from 2.04 to 6.45 mg. There was an increased cholesterol value, which contrasts with the lowered values found in other anemias. Graham claims that there is need for some word to demonstrate the presence of sickling without committing one to any decision on the question as to what other morbid changes may have made their appearance in a given case. To fill this need he suggests the term "meniscocytosis," derived from the Greek word for crescent or sickle. Sickle-cell anemia seems to be related to hemolytic jaundice.

Combined Therapeutic Use of Arsphenamine and Immune Serum.—W. Krantz claims to have obtained astonishing results with this combination in animal experiments. He inoculated healthy mice with the spirochete of relapsing fever and showed that this organism at first multiplied in the blood to a sort of crisis, after which it vanished from the circulation but only to return in a recurrence. From two to four of these recurrences appeared during an interval of 30 days.

Cultures were made of both initial and recurrent organisms, the latter constituting a transitory modification with a tendency to throw back to the original strain. It was assumed that the prompt disappearance of the organisms from the blood was due to the formation of an antibody. The author now attempted to arrest the disease before the first crisis by injecting immune serum, but this attempt was not successful, and he then resorted to injection of the serum in conjunction with the original culture. The fact that such inoculations did not take showed the great power of the serum in destroying the spirochete under these circumstances, although it was powerless to modify the fully developed disease. By persisting in these inoculations it was found that they did sometimes take. It was evident that antibodies introduced from without do not play the only part in destroying the spirochete, for the defense of the organism cannot be left out of consideration. It occurred to the author that these cases might be satisfactorily treated after the full development of the inoculated disease by combining the serum with neosalvarsan, so that while one agent reduced the virulence of the spirochete the other could the better attack the latter. This idea seemed to work out so well that the author believes he is on the track of a great discovery in the treatment of spirochetal diseases, especially syphilis. It was startling, he says, to see the positive results of the mixture when either agent given alone was inert.—*Muenchener medizinische Wochenschrift,* February 18, 1927.

A Bacteriological Theory of Cancer.—In a letter to the *British Medical Journal,* January 8, 1927, 3444, J. Barcroft Anderson communicates the following authorized statement concerning the researches of Carl Spengler into human cancer. In 1909, Spengler isolated from four cases of recurrent inoperable cancer a Gram-positive bacillus which formed ovoid spores, and in the presence of body cells replaced the cell contents with these spores, and so within the limiting surface of the body cell formed spore sacs. He had no doubt that this microorganism is an essential cause of cancer. He grew it upon somatose Beyer 5 grams, peptone Chapoteaut 5 grams, sodium chloride (pure) 5 grams, sodium carbonate crystals 2¼ to 2½ grams, glycerin 50 c.c., water 1,000 c.c., with and without ½ per cent. glucose and with and without agar. Last July he added to a pure culture of this bacillus on solid and in fluid media, after antiseptic treatment, the cells of pulmonary sputum, also the surface cells of the skin from the back of the hand, also a mixture of these skin cells and human blood. In every case he got proliferation of the cells; and after proliferation the cells were entered by the bacilli and spores were formed inside the cells, thus creating the appearance of spore sacs. This change was most rapid and most pronounced with sputum cells. When this bacillus is grown in culture with human body cells, those cells tend to become Gram-positive. He knows of no other microorganism with which any of these results can be obtained. Since the commencement of these researches, Spengler has been treating cancer patients with immune substance taken from the blood of animals immunized with this bacillus, or with a vaccine made from this bacillus, or both. He now calculates on arresting cancer formation in inoperable cases within two weeks after starting treatment, and on getting rid of the tumor with further treatment.

Antidotes for Corrosive Sublimate.—M. A. Rakusin recalls his earlier studies on this subject from which it appeared that charcoal, and especially wood charcoal, through its adsorptive properties is an efficient antidote to mercury in solution while magnesium hydrate is an antidote to arsenic and mercury alike, being superior in this respect to the oxide and carbonate of magnesium. Activation of wood charcoal by Zalinsky's method enhances its antidotal property. He has continued his efforts along these lines and has shown *in vitro* that wood charcoal can adsorb 95 per cent or more of sublimate, while others have placed the figure at 98 per cent. Apparently this is evidence that wood charcoal is the best antidote for sublimate and other quicksilver salts and probably can be shown to be of the same superiority for salts of other heavy metals. Other tests *in vitro* with conditions, such as blood temperature, conforming as closely as possible to those of the animal organism, showed that the adsorptive power of magnesium hydrate was much lower than that of wood charcoal while much more time was consumed in the process. Krawkow has recently claimed that magnesium is of equal value in poisoning with zinc and copper salts. In the antidotal use of adsorptive substances the latter must be given over and over again in contradistinction to the usual practice with chemical antidotes which are supposed to be given once for all at the earliest possible moment. —*Muenchener medizinische Wochenschrift,* February 25, 1927.

The Nature of Lead Poisoning.—P. Schmidt emphasizes our lack of exact knowledge of this subject. There are two basic types, in one of which lead fumes are taken directly into the general circulation through the lungs, while in the other the metal is absorbed in the intestine and must traverse the liver before reaching the systemic circulation. There are four cardinal symptoms of plumbism, viz., the lead line on the gums, the color of the skin, basophilia, and porphyrinuria; and yet we find lead workers who are apparently in good physical condition who present all four of them. The slow accumulation of lead in the alimentary canal is responsible for an entire series of symptoms comprising loss of appetite, belching, bad taste in the mouth, colic, etc. Lead is first an irritant, later a destructive agent. After it has reached the blood in certain amounts we see another train of symptoms, comprising anemia and spastic contraction of the arterioles. The latter may be present in the absence of anemia and is responsible for the peculiar greyish or yellowish tint of the skin. The deposit of lead granules in the capillaries and precapillaries is followed eventually by angiosclerosis, especially if there is already a tendency to that condition. If the kidneys are intact the lead is eliminated, consequently, as has long been known, it is the subject of renal insufficiency who is menaced with plumbism; in the case of those subjects who are healthy despite the "four cardinal symptoms" their immunity is due to the excretory efficiency of the kidneys. The best prophylaxis against industrial plumbism, Schmidt holds, is the weeding out of a large class of workers who present chronic alcoholism; disease or functional inferiority of the nervous system, arteries, kidneys, or the blood; syphilis; polyarthritis; and in fact the great majority of chronic diseases.—*Klinische Wochenschrift,* February 19, 1927.

Treatment of Hay Fever by Diathermy.—Hamm anticipates the hay fever season by announcing his success last year with diathermy in the treatment of 20 cases. (*Klinische Wochenschrift,* March 19, 1927.) There was not a single failure and the duration of the treatment was relatively brief. It is true that the wet summer of 1926 was somewhat more favorable to hay fever patients than previous hot and dry summers. Most of the patients had suffered from five to eight years, had tested many remedies with more or less success, and were good judges of their malady. Thus far no patient has required over five sessions of diathermy and in one case only was it necessary to anesthetize the nasal mucosa. What is the rationale of these results? The high tension alternating current on entering the nostril is changed to heat which may reach 40° C. (104° F.). This must result in a destruction of the pollen or in detoxicating it of the pollen toxin. In no other way can the sudden improvement be explained. The method ought to be tested in a large metropolitan clinic where it could be controlled with microscopic and chemical examinations. The frequency of the sessions was two a week, although Hamm has cured some cases in one sitting. He uses a special nasal electrode which before introduction is wrapped in zinc oxide plaster mull.

The Gold Treatment of Ocular Leprosy.—Professor W. H. H. Hoffmann of Havana refers to the success of chaulmoogra oil as proof that leprosy is not incurable. The way is now open to the search for other remedies. Antimony in the author's experience and opinion may prove to be useful as an auxiliary. The value of gold in experimental tuberculosis and in clinical tuberculosis of the eye naturally suggests its use in leprosy, and the author has made a trial of it in leprosy of the eye which is a common lesion in the local leper asylum. It is evident that the first ocular lesions are in the conjunctiva and the disease extends by lymphatic propagation to the interior of the bulb. A large quantity of a gold preparation, to be used by injection only, was submitted for testing by a German drug firm. Madsen, the authority on the use of gold in experimental tuberculosis, does not believe that the metal exerts any bactericidal action but that it rouses the defensive forces of the [illegible] It is very evident that Nature always makes a determined fight against the lepra bacillus, for the disease is eminently chronic with periods of quiescence, and various phenomena such as fever and allergical reactions also suggest a warfare between bacillus and natural defense. The author does not state how the injections are made but from analogy we may believe that they are subconjunctival. He has no doubt that they are efficacious for even after one or two injections improvement may be noted. Thus far he has seen no ill result from the treatment. Apparently only ocular leprosy has been treated with the gold preparation.—*Muenchener medizinische Wochenschrift,* March 11, 1927.

Trauma as a Cause of Auricular Fibrillation; Its Medicolegal Significance.—John Hay and Wallace Jones record five cases in which the advent of fibrillation might reasonably be ascribed to trauma or physical strain. They point out that the view generally held is that fibrillation, as met in clinical practice, is always superimposed upon a preëxisting pathological change in the heart. While this probably holds good in the majority of cases, there are exceptions to it. In one of the reported cases the exciting factor was a powerful electric shock; in the remaining four the exciting factor was sudden physical exertion putting an unexpected and undue strain on the heart. In four of the five cases there was no evidence that the heart was diseased or abnormal, and up to the time of fibrillation the patients were living active normal lives. The authors hold that the evidence justifies the view that sudden strain may, and frequently does, initiate auricular fibrillation and induce cardiac failure in men and women with diseased hearts. Furthermore, fibrillation may result from physical strain in hearts that are apparently normal, so far as can be determined by ordinary clinical methods. The medicolegal significance of this is of considerable practical importance. In one of the cases cited, it was claimed that the man broke down in consequence of the strain of his employment. The legal opinion given was that, "If a man, in lifting a weight or trying to move something not easily moved, were to strain a muscle, or rick his back, or rupture himself, the mishap, in ordinary parlance, would be described as an accident." This man strained the most important muscle in his body—his heart—and his auricles fibrillated. He was awarded compensation for total disability.—*British Medical Journal,* March 26, 1927, 3455.

Treatment of Achalasia of the Cardia (so-called "Cardio-spasm").—Arthur F. Hurst, writing in the *Lancet,* March 26, 1927, ccxii, 5404, states that since it is impossible to restore the power of relaxation to the closed cardiac sphincter, the object of treatment must be to dilate it to such an extent that it no longer offers any resistance to the passage of food into the stomach. This can be done with the least discomfort and danger by means of mercury bougies. Rubber tubes of Nos. 28 to 34 gauge, 31 inches long, and each containing 1 lb. 5 oz. of mercury, which has been found by experience to be sufficient to force the closed sphincter, are now obtainable. It is best to pass the bougies on the first occasion during the x-ray examination. A mark should be made on the bougie at the level of the teeth when its two lower inches are within the stomach. Successively larger tubes are passed at a single sitting, and in most cases the largest one meets with as little resistance as the smallest. The patient is then instructed to pass the largest tube on himself before each meal. For the first few days the bougie should be retained in position on each occasion for as nearly a quarter of an hour as possible. After the passage of the tube the meals usually enter the stomach without difficulty. The time is reduced before lunch and dinner, and often, within a week, the midday passage can be given up entirely. Later the bougie is passed in the morning only, and the time it is kept down is steadily reduced. In favorable cases the bougie is passed only on alternate days, then once a week, and then its use is discontinued. In one case in which the passage of the mercury bougie did not give sufficient relief, the sphincter was divided longitudinally, as in the Rammstedt operation for hypertrophic pyloric stenosis in infants. This patient was well three years after the operation. Hurst thinks that had the larger bougie now in use been passed surgery would have been unnecessary. During the first week of treatment four meals a day should be given, each consisting of one pint of milk, which may contain a beaten-up egg. As esophagitis is likely to persist for a time, the diet should contain no pips, skins, or vegetabe fragments. The patient should chew his food thoroughly, eat slowly, and finish each meal by drinking half a pint of water or milk to wash all traces of food into his stomach.

The Early Recognition of Tabes Dorsalis.—E. W. Applebee, writing in the *Medical Record and Annals,* March 1927, emphasizes the necessity of making a diagnosis of tabes dorsalis in the pre-tabetic stage, as it is only during this stage that treatment can be said to be curative. In the great majority of tabetics there is a prodromal period of from two to five years, during which the classical symptoms are absent, and the patient complains of diffuse aching pains, which are usually diagnosed as either rheumatic or neurotic. In every case of obscure pain in an adult, tabes should be thought of. The diagnosis of neuritis should never be made if two weeks after the onset there are not some cardinal symptoms of neuritis—muscular atrophy, sensory changes, hyperactivity followed by diminution of the tendon reflexes, tenderness of the nerve trunks, or electrical reactions of degeneration. In the early stages of tabes careful examination shows a slight difference in the size of the pupils or a little irregularity in their outline, accompanied by what is inaccurately described as a sluggish reaction to light. The reaction is never sluggish, but the syphilitic pupil often requires a greater intensity of illumination in order to cause its reflex contraction. Other early signs of tabes are a diminution and loss of the vibratory and the deep pain sense and a disappearance or diminution of the ankle jerks. The loss of deep pain sense is characteristic, and its accidental elicitation during any physical examination should arouse suspicion. For example, if broken bones can be manipulated painlessly; or if manipulations within the urethra or rectum, which normally cause distress, are painless; or if the dentist discovers that the patient is insensitive to the drill, the probability of tabes should immediately suggest itself. Diffuse pallor of the optic disc, even in the absence of amaurosis, is often found in tabes. Frequently failure to recognize tabetic crises has been responsible for unnecessary operations for supposed gastric ulcer, gall-bladder disease, or appendicitis. It is helpful to remember that in the tabetic crisis light touch causes intense pain, while firm pressure is well borne, the exact opposite of what occurs in acute abdominal conditions.

LEGAL

By **LLOYD PAUL STRYKER, Esq.**
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THE ANNUAL MEETING

The one hundred and twenty-first annual meeting of the Medical Society of the State of New York was held in Niagara Falls on the first three days of the second week in May, 1927. It was an enthusiastic, successful and satisfactory meeting.

Promptly on the morning of May 9th the delegates assembled and were called to order by the Speaker. For two days the business sessions lasted and on Tuesday evening the annual dinner was held in the fine ballroom of the Hotel Niagara.

We doubt if ever in the history of the Society there was an annual meeting indicating a greater unanimity of purpose and a finer cordiality among the delegates. Perhaps more than ever, there was manifest a fundamental understanding of and a determination to carry out the purposes for which, during the administration of President Thomas Jefferson, back in the early days of the Republic, your Society was founded. Among those purposes there is that not only to federate and bring into one compact organization the medical profession of the State of New York but "to promote friendly intercourse among physicians."

If among those unacquainted with the medical profession there are any who believe that doctors, absorbed as they must be in the routine of their profession, are not conversant with prompt and efficient methods for the despatch of business, they would experience a sense of surprise as well as keen admiration could they observe with what a sound grasp and wise appliction of the rules of parliamentary law and procedure the meetings of physicians are conducted.

All the friends of your distinguished Speaker, Dr. E. Eliot Harris—and who that knows him is not his friend—rejoice that he could be present. In order to conserve the Speaker's strength, the vice-Speaker, Dr. Harry R. Trick (your President-elect), performed many of the duties of the presiding officer, and did so with distinction and ability.

Throughout the day in the corridors of the hotel and in various impromptu excursions into Canada and inspection tours of the wonders of Niagara Falls, the doctors from all parts of the state met in friendly intercourse. George Leitner was ubiquitous with his unfailing repertoire of new stories, scattering sunshine on every group he met.

The annual dinner, held on Tuesday evening, marked the close of the business sessions. Dr. Fisher presided and spoke gracefully and well, as did also the distinguished President of the American Medical Association, Dr. Wendell C. Phillips, and Dr. James E. Sadlier, your new President. The dinner was followed by dancing to the accompaniment of an enthusiastic orchestra.

These annual meetings are of great benefit to the profession. They furnish not only a forum for the exchange of ideas, but an opportunity for the physicians of each section of the state to become acquainted with those from many others. If you counsel's feelings were shared by everyone and it is believed they were, all who were present took back to their homes memories of many pleasurable hours and a new zest and inspiration for carrying on the work of the coming year.

It is unfortunate that the lay public is not more aware of what fine human individuals the medical profession is composed. Could representatives of the lay public have been present at this annual meeting, they would have come away not only with a better understanding, but with a greater sympathy and appreciation for the men who carry on the daily battle against disease and death.

The writer in his experience has learned much about the practititioners of the healing art. One thing, however, which he did not before fully appreciate was the fine vocal gift possessed by so many of its members. At Dr. Fisher's luncheon the singing was such as to go down in the annals of music. We were not informed as to whether any representative of the Metropolitan Opera Company was present to sign up Dr. Orrin S. Wightman, but after having listened to the clear resonant high notes with which he favored us, we are all convinced that by his adoption of a medical career the operatic stage became a distinct loser. Dr. Dan Dougherty, blushing still from the ovation that had greeted his re-election, came in with a heavy bass.

To the writer it was a matter of regret that he could not remain over for the scientific session, but in the early hours of Wednesday morning it was necessary for him to wind his way to Buffalo to try a case.

No account of this meeting would be complete unless it contained some word of praise, well deserved, for the efficient and painstaking work of Dr. Schnell, the Chairman of your Committee on Arrangements.

MULTIPLE BREAST ABSCESSES—PUERPERAL SEPSIS—DEATH

As administrator of his deceased wife an action was brought against a hospital and the house physician who at times had attended the deceased while she was a patient at the hospital.

In this action it was charged that on the 17th of May the decedent had engaged the hospital for the purpose of providing her with a physician and hospital facilities wherein to be confined; that on the 20th of May she gave birth to a female child; that both the mother and child were under the direct care of the defendant physician; that the physician had failed to use proper care and skill in his attendance upon the decedent and that by reason therof she developed an inflammation of the breasts causing inspissation of the milk and that the physician had likewise failed to use due and reasonable care in treating and caring for the inflammation; that without the consent of the patient or her husband an operation was performed upon the patient; that thereafter she developed a high temperature and delirious condition and became greatly reduced in vitality, and that while in such condition of high temperature and delirious condition the defendant physician had permitted and ordered the patient to be forcibly removed from the defendant hospital and that the hospital likewise had permitted, ordered and caused the patient to be forcibly removed; that because of the forcible removal of the patient and the negligence of the defendant physician the patient died on the 10th of June. Damages were sought to be recovered for the death of the patient and likewise by the husband for the loss of his wife's services.

The defendant physician was a part-time house surgeon at the hospital. The decedent had applied to the hospital for prenatal care and arranged for hospitalization upon her confinement. She was first seen by the defendant physician about two months prior to her confinement, during which period she made three visits to the physician. At the April visits the physician had examined the decedent as to her pregnancy and found that she had a slight diabetic condition. He prescribed a strict diet and likewise advised the other necessary precautions for her condition.

The patient entered the hospital on May 16th at about 10:30 P. M., at which time temperature, pulse and respirataion were normal. She was delivered of a normal female child in good condition at about 11:50 P. M. on May 17th. Prior to her admittance to the hospital and while under prenatal care the urine examination made on March 31 showed 0.4 sugar. A blood examination made on April 4th showed sugar 0.130 per cent.

The mother and child both progressed for a period of about a week, when the defendant physician discovered an abscess on the left breast and that the patient had a temperature of 103 degrees. At this time the defendant physician suggested to the patient that the mass be opened and later in the same day he advised her father of the patient's condition and told him that the patient would have to be operated upon, to which the father replied that the physician should go ahead. The defendant physician called the visiting surgeon in consultation, who after examining the patient and the mass of the breast, advised that the same be operated upon. Then, after taking the proper antiseptic precautions, sterilizing his instruments and likewise sterilizing the field of operation, with the assistance of the nurse the defendant physician, with a scalpel, incised the breast abscess. A large quantity of pus flowed therefrom. The wound was dressed with iodoform gauze and the patient left in bed. The operation was performed about noon time of May 29th. This incising of the abscess was the last treatment rendered by the defendant physician to the patient.

About two hours after the performance of the operation the patient's father by telephone advised the defendant physician that he was going to remove his daughter from the hospital. The surgeon advised against this procedure, but the defendant was insistent and procured a private ambulance and then removed the patient from the hospital.

The patient was taken to her home and later the same day a gynecologist was called in to attend the patient. Upon examination he advised her removal to another hospital. She was thereupon removed from her home to this second hospital, where the gynecologist continued to treat the patient. While at the second hospital the pataient developed a series of abscesses first in the left and then in the right breast. The attending gynecologist incised the various abscesses at the proper time. The condition of the breasts became such that it was necessary to remove both of the breasts. After the removal of the breasts the patient kept running a high temperature and died a day or two after the breasts had been removed, her death being due to puerperal sepsis.

The surgeon who subsequently treated the patient was at a loss to determine the cause of the multiple abscesses and was of the opinion that the treatment of the defendant physician in no way contributed to the patient's death.

Both of the actions remained on the calendar for some period of time. The plaintiff being unsuccessful in his attempts to procure a settlement, motions were made on behalf of the defendant to dismiss the actions for lack of prosecution. After the institution of these motions the plaintiff, through his attorney, consented to the discontinuance of the actions, thus terminating them favorably to the defendant.

NEWS NOTES

THE ANNUAL MEETING

The One Hundred and Twenty-first Annual Meeting of the Medical Society of the State of New York, held in Niagara Falls on May 9-12, 1927, was characterized by quiet efficiency, and by action rather than talk. Few speeches were made, and none of them were long. No acrimonious debates occurred, and no factions developed. Some one remarked that the machinery of the Society had been well oiled. The fact is that the smoothness with which the sessions were run was due to the universal application of the Golden Rule. Disputes and debates have usually been between the representatives of two opposing groups,—the progressives and the conservatives. The differences between the two groups have been principally in the temperaments of their members. Some doctors are naturally conservative and have a veneration for the work well done by their famous predecessors. Other doctors are enthused with the modern spirit of progress, and are quick to advocate measures which involve changes in fundamental procedures long established. When the new proposals have been discussed on the floor of the House of Delegates, the inevitable results have been sharp clashes between the two temperamental groups. But no such clashes occurred during the last meeting, for everybody seemed to have joined the ranks of the progressives, and were actuated with a sincere desire to see the medical organization grow and develop along natural lines.

The Annual Meeting reflected the very great growth in the development of the activities of the State Society and its component organizations during the past year. Probably no previous year can approach the last one in the interest universally shown in organized medicine, and the response of physicians to their civic responsibilities. Problems of a civic and community nature must be solved by the collective action of the group on whom the responsibility rests. Physicians are charged with the responsibility for the practice of civic medicine, and they have met it effectively by the action of their societies. The great item of progress during the past year has been to promote more intimate relations of physicians with official governmental bodies and voluntary health organizations, and to develop agreements among all the varied groups of health workers as to the fields of activity which are peculiar to each. The crowning act of progress along civic lines has been the formation of a committee on public relations to adjust the fields of activity of the several health organizations, and to make available the best medical advice to the community.

The progress of the past year had left few of the old topics of dispute. State medicine was a thing of the past, while health centers had died a natural death unmourned, and in their places there had been developed a system of conducting all forms of public health work by the concerted action of the trinity of health workers,—the doctors, the departments of health, and the people themselves. Since the old sources of dispute have been settled spontaneously and amicably, there was small occasion for disputes in the House of Delegates, and the meetings of the State Medical Society were entirely harmonious, as all meetings are likely to be when effective action, rather than theory, is their basis.

The House of Delegates conducted its business with unusual celerity and smoothness. Every one recognized, for example, that the floor of the House of Delegates was no place in which to consider radical changes of the Constitution and By-Laws, such as the formation of a permanent committee on public relations. Half a dozen important amendments were introduced and will be acted upon at the session of 1928; and in the meantime, the discussion of their merits can be conducted in the meetings of the County Societies and the District Branches.

A great source of the debates and disputes in past years has been an ignorance of the work accomplished and planned by the leaders and officers of the State Society. Two factors have operated to remove that ignorance during the past year; first, the visits of the officers and committeemen to the County Societies and District Branches, and, second, extensive publicity in the JOURNAL. The officers have set a high record for visits to the component societies, and the societies have outdone one another in welcoming their visitors. Then, too, there has been a greatly increased use of the JOURNAL in reporting the activities of all the organizations. The members of the State Society were well informed concerning its affairs when they came together in their Annual Meeting. The publication of the Annual Reports of the officers and committees in the JOURNAL before the Annual Meeting also contributed largely to the satisfaction which the members felt regarding the conduct of the Society's affairs during the past year.

The local Committee on Arrangements did its work well, and every physician and lady present was warm in praise of the manner in which they were entertained. A pleasing touch was a rose left at the door of each visiting lady every morning as a greeting from the Medical Society of the County of Niagara. No one criticized the local committee for the regular morning rain, but everybody fully appreciated the way in which the clouds were swept aside on every afternoon while the visitors were entertained at golf and teas.

It is most pleasing to be assured that the people of Niagara Falls appreciated the visit of the doctors, as is shown by the following letters:

Mr. G. L. Bowe, Manager of the Convention Publicity Department of the Chamber of Commerce of Niagara Falls, writes to the Editor:

"May I take this opportunity to say that Niagara Falls feels they have had in the New York State Medical Society one of the finest conventions that ever met in Niagara Falls. Particularly do we feel that our city has been honored since it is our understanding that heretofore only seven cities in the State of New York have been capable of anywhere near successfully handling the Society's convention, and I sincerely hope that what efforts this office may have put forth in connection with the convention arrangements have been helpful. I am sure it was a real pleasure to work with the different members of your Society and I trust that at the proper time the Society may wish to return with another convention to Niagara Falls."

The Hon. William Laughlin, Mayor of the City of Niagara Falls, wrote to the Chamber of Commerce:

"Conventions of this character I believe are of inestimable value to Niagara Falls. I heard many of our citizens comment upon the very high type and high class of delegates and visitors attending the meeting. Conventions of a scientific nature like this have a great educational value, and I hope that your Department may induce more such splendid organizations to come to Niagara Falls."

The informal social features of the annual meeting attract the members quite as strongly as do the formal sessions. The most vivid memories which one carries away are those of meeting old and new friends, and exchanging views, humorous and serious, on all topics that interest doctors. The friendships formed at the meetings are the vitamines which infuse vigor and alertness throughout the great body of the medical profession. There is a compelling influence in a social luncheon which disarms suspicion and promotes interest in society affairs. The three or four social meals of which every member partook every day of the meeting were great factors in promoting the interest of the doctors in all phases of the practice of medicine.

Equally valuable were the semi-formal luncheons which were not announced on the programs. Dr. George M. Fisher, the retiring president gave a social luncheon to his associated officers and committeemen on Wednesday afternoon; and the secretaries of the county societies dined with the officers on Thursday noon and agreed that a repetition of last year's conference of the secretaries would be desirable.

Of course, everybody saw the Falls from every point of view, except that most of the visitors had an unaccountable aversion to ride in the Maid-of-the-Mist. Yet the trip on the boat is more quiet and safe than that on a New York City ferry, and it reveals the height and grandeur of the Falls as does no other view.

The editor-in-chief and the executive editor yielded to their reportorial instincts by taking over five hundred pictures of the Falls, including several of the Secretary beaming benignantly upon bridal couples on Goat Island.

The registered attendance was 800 including 100 ladies; but since the general registration desk was in the Prospect House while the headquarters was at the Hotel Niagara, the attendance was much larger than the figures might indicate. The names of the officers and the members of the House of Delegates, some 150 in number, should be added to the general registration, for they registered at the Hotel Niagara. Then, too, there were over 100 persons in attendance at the Commercial Exhibits. The total attendance at the meeting was well over one thousand.

THE COMMERCIAL EXHIBITS

One of the most important features of a large medical meeting is its comercial exhibits. Physicians and manufacturers are mutually dependent upon one another, and commercial dealers in doctors' supplies are as ethical as the medical men. The commercial houses are as anxious to show their products as the physicians are to see them.

There were thirty exhibitors at Niagara Falls, and others would have shown their wares if there had been space for them. The exhibits were held in the Prospect House apart from the Niagara Hotel, which was the headquarters of the State Society. Yet the exhibit rooms were fairly well filled nearly all the time, and those who came to see and learn were not distracted by an ever-changing crowd.

A feature that was unique and highly successful was a smoker and entertainment given to the exhibitors by the State Medical Society on the first day of the session in the Temperance House. Mr. Joseph B. Tufts, the Advertising Manager of the JOURNAL, arranged a short speaking program, followed by high class vaudeville acts and closing with light refreshments. About sixty representatives of the exhibitors were present, and all expressed themselves as feeling honored by the attention that was paid to them. The ladies connected with the exhibits were given a special supper in a room by themselves in the Prospect House.

Dr. O. S. Wightman, Editor-in-Chief of the JOURNAL, presided at a twenty-minute session which preceded the entertainment. The talks were brief and snappy, and were full of practical suggestions.

Dr. Frank Overton, Executive Editor of the JOURNAL, told of the policy of the editors and publication committee to assist the advertisers with their copy so that the quality of the advertisements in a literary and scientific way should be equal to that of the rest of the JOURNAL. He mentioned the tentative plan that the JOURNAL should have a department devoted to manufacturers and dealers in which the processes of production should be portrayed and the tests for purity and perfection be described. Examples of the proposed articles are the manufacture and sterilization of surgical ligatures, the manufacture of tablet triturates, and the standardization of digitalis products. No firm would be mentioned in the articles, but advertisements of the products described would be welcomed.

The speaker also said that the advertisers constituted a measure for estimating the popularity and value of the JOURNAL. The advertisers show their own appreciation of the JOURNAL by paying for space during the last year nearly double the amount of any preceding year, and for this the State Medical Society expresses its thanks.

Dr. George M. Fisher, President of the Medical Society of the State of New York, and Dr. James E. Sadlier, President Elect, expressed their appreciation of the support given by the advertisers, and said that the Society would value any suggestion from them for making the JOURNAL a better advertising medium.

Mr. D. F. Storer, representing the John Curtiss Company, advertising agents, gave a brief talk on the subject "How Can the State Journal Help the Advertisers?" He said that the usual procedure of a medical journal was that when an advertiser makes an over-enthusiastic claim for his product, the Editor throws out the whole advertisement, whereas the Editors of the NEW YORK STATE JOURNAL OF MEDICINE will edit the copy and by a slight change of a line or two, will make the copy entirely acceptable. He said that the advertisers appreciate the friendly attitude of the JOURNAL toward the advertisers, and that they sincerely desire to be as accurate and scientific and ethical as the doctors themselves. He said that a continuation of the friendly suggestions by the editorial staff was the best service the JOURNAL could render the advertisers.

Mr. W. P. Schmid, Eastern Manager of the Cameron Specialty Company, gave his ideas regarding the exhibits at the Annual Meeting next year. He suggested that an exhibitor's section be formed, and a room provided in which the exhibitors could demonstrate their products according to a pre-arranged schedule. Each exhibitor would submit his written address for editorial review, and the Society would provide lights and stereopticons and other means of exhibition.

Dr. Robert Rasin, of the Professional Service Department of the Dry Milk Company, New York, read a brief paper as follows:

"This courtesy, so unexpected, is however a pleasure, for it affords an opportunity to thank the Medical Society for this get-together which in my experience is unusual. This complimentary gathering is indicative of good fellowship and confirms a feeling that all of us are welcome guests of the New York State Medical Society.

"It has been stated that medicine has not kept pace with surgery; however, this statement is quite erroneous, for the most scientific minds and laboratories are employed by the various monufacturers, whether of drugs, chemicals, or apparatus, and have contributed wonderful opportunities toward the alleviation and cure of all ailments to which the human system is subject. We are further reminded of the fact that only such products as have been submitted to care and attention, prosper and prove worthy of the confidence and consideration of the medical fraternity at large.

"Now in regard to the question that has been put to me; What can the New York State Journal of Medicine do to help the advertiser? I would say, 'Closer personal contact with men representing the companies; closer contact with the exhibit representatives; help to extend good fellowship, and cooperation and professional courtesy to the professional service man.'"

Dr. Wightman, in summing up the talks, said that the suggestions would be presented to the officers of the State Society, and that he was entirely in favor of an exhibitor's section.

The Exhibitors' Meeting enabled the doctors and exhibitors to become acquainted with one another, and the exchange of ideas will be of great benefit to the Society as well as to the exhibitors.

THE SCIENTIFIC SESSIONS

Most physicians who attend the meetings of the Medical Society of the State of New York are attracted especially by the scientific sessions. The scientific programs this year were unusually practical and of a high order of merit. The members of the Committee on Scientific Work, who arranged the program, were men of wide acquaintance among medical writers and speakers, and of wide experience in program making, and under the leadership of the Chairman, Dr. S. J. Kopetzky, of New York City, they secured speakers whose papers were widely discussed and commended in the lobbies of the hotels,—a good sign of the value and popularity of the papers.

The program listed 106 subjects and 180 speakers,—a rather formidable list until one considers that they were distributed through nine sections besides the cancer exhibit, and over three days' time.

It is expected that the secretary of each section will secure the papers presented before his section, and will forward each one to the Editor of the Journal as soon as he obtains it, without waiting to get the entire list. Since there are one hundred papers to be published during the year in twenty-four issues of the Journal, each issue should contain four papers, and their publication should begin at once.

There has been no provision for reporting the remarks of those who have discussed the papers. These discussions have often been of great value, especially in regard to new points presented in the papers. When a reader of the Journal sees a new idea presented, he at once wishes to know the opinion of others regarding it, and this information is often found in the remarks of the discussors of the papers.

The principal means by which an editor judges the authoritative standing of a paper is the attitude of the medical society before whom it is read. When the editor receives a paper for publication, he looks for the name of the society before whom it was presented. Frequently he will advise the author to present it before a recognized society, and will tell him that if the society will approve the article, the Journal will publish it. The remarks of those who discuss the papers are, therefore, of value, and it is hoped that the secretaries of the sections will ask the speakers to submit their remarks for publication in connection with their respective papers.

THE CANCER DEMONSTRATION

Thursday, May 12, the last day of the meeting of the Medical Society of the State of New York, was given over to a cancer demonstration in three parts. First, there was an exhibit in the ballroom of the Niagara Hotel, including specimens illustrating the pathology of cancer, both gross and microscopic, demonstrations of methods of research on mice, and clinical lectures.

The second part consisted of moving pictures showing various forms of treatment and prevention.

The third part of the program consisted of four papers presented during the afternoon.

One great value of an exhibit such as that on cancer, and that on syphilis last year, is that it forms a vivid index which reminds the visitor of important points which he will study later. It is, therefore, planned to prepare a review of the exhibit and a resumé of the present status of cancer knowledge, and to publish them in a special cancer number of the Journal.

THE ANNIVERSARY MEETING

The 121st Annual Meeting of the Medical Society of the State of New York was held in the auditorium of the Chamber of Commerce building, Niagara Falls, on the evening of Wednesday, May 11th, 1927. This meeting is more properly called the Anniversary Meeting, for that is the title used in the Act of Incorporation of the Society. There is no specified order for the meeting, and so in recent years it has taken a semi-popular form.

The members were welcomed to Niagara Falls by Dr. Frederick J. Schnell, Chairman of the Committee on Arrangements, and Dr. Leo Wolf, representing the Mayor of the City.

Dr. George M. Fisher gave the President's Annual Address, in which he reviewed the problems which the State Society is considering, among them being the nursing situation, cancer research, workmen's compensation, physicians for rural communities, rural hospitals, health education of the public by the newspapers, and the practice of preventive medicine. The address is printed as the first article in this Journal.

Dr. Louis I. Harris, Commissioner of Health of the City of New York, spoke on the present status of the practice of public health, especially the relations of physicians to the other two great groups of agencies in the public health field, departments of health, and voluntary organizations. "Lay health organizations," he said, "are vigilant to spur the doctor to better practice, and are eager to experiment with new procedures. They are, therefore, both a help and a challenge to physicians."

Speaking of the cults, Dr. Harris said:

"The people generally do not want chiropractic and other cult practices, and they go to them when the doctors fail to give relief. A great field of work of the voluntary organizations is that of protecting the public from the cultists."

In closing, Dr. Harris made a plea that physicians in general practice assume the leadership that is rightfully theirs in all public health fields.

Edward J. Harrison, Dean of the College of Arts and Sciences of Niagara University, gave an inspiring address on the broad influence of the physician beyond the limited field of his medical practice. "The doctor," he said, "is above the practitioner of other professions, for he deals with life itself. The doctor is held in high honor because he practices sacrifice and service. He recognizes a duty to give society a reasonable leadership in all matters of health and life. In order to ulfill his mission, he needs an education and xperience much broader than that gained in alls of science. He needs to know cultural and social subjects, such as are given in liberal arts course in colleges.

"A practical plan of medical leadership includes the emancipation of the people from three forms of slavery:

"1. Economic, to show that financial reward is not the chief end of work nor the principal standard by which to measure usefulness.

"2. Social, to free men from the thralldom of propaganda which is the enemy of reason and deadening to the mind.

"3. Emotional, so that men will be guided by reason rather than by their fleeting feelings.

"The doctor is the inheritor of centuries of practice and research. His duties are social as well as medical, and what he says on any subject will be quoted. The public will support the leadership of the doctor if his outlook is broad and comprehensive."

Dr. Wendell C. Phillips, President of the American Medical Association, gave a brief address in which he urged physicians to throw off their shackles of secrecy and teach the people the broad principles of preventive medicine.

Dr. James E. Sadlier, in assuming his duties as President of the Medical Society of the State of New York for the year, said that the leadership of ten thousand physicians was a great task which he approached with seriousness. He said that the time to talk was at the end of his term of office, rather than at its beginning, and he hoped that the next presidential address may include as many accomplishments as that of Dr. Fisher.

THE BANQUET

The Annual Banquet of the Medical Society of the State of New York was held on the evening of Tuesday, May 10th, 1927, in the ballroom of the Niagara Hotel. The after-dinner speeches were brief and pointed. The principal address was given by Mr. William Ganson Rose, of Cleveland, who delivered a rapid fire of mingled wit and wisdom. The other speakers included Dr. George M. Fisher, retiring president of the Medical Society of the State of New York; Dr. James E. Sadlier, the incoming president; Dr. Harry R. Trick, President-elect; Dr. Wendell C. Phillips, President of the American Medical Association, and Dr. Pusey, Past President of the Association.

Dr. Frederick J. Schnell, Chairman of the Committee on Arrangements, was toastmaster. He stated that he had invited the Medical Association of the Province of Ontario, Canada, to participate in the meetings of the State Society, and that he had just received word of the sudden death of the President, Dr. E. Brandon, from blood poisoning.

An orchestra composed of Buffalo physicians gave a concert in the hotel lobby after the banquet.

LADIES PROGRAM

The reputation of the annual meeting and the desire of the doctors to attend it are effected by the opinion of the visiting ladies; and their influence will be greatly increased when the Women's Auxiliary is formed, for one of the arguments in its favor is if that will promote the sociability and attractiveness of the meetings of the State, District and County societies.

The local Committee on Arrangements anticipated the importance of the social features of the annual meeting by issuing a four-page program of social events especially for the ladies. The printed program, which was excellently carried out, was as follows:

Tuesday morning—Choice of rides to points of interest. Assembly in Lobby of Hotel Niagara, 10 A. M.

Tuesday afternoon—Inspection of Shredded Wheat Factory, 2 P. M. Bridge Tea, Shredded Wheat Auditorium, 2.30 P. M. Table Prizes.

Tuesday evening—Banquet at Hotel Niagara 7 P. M. Ball following. Music by Colgate Isle of Blues Orchestra.

Wednesday morning—Choice of rides to points of interest, or golf at Country Club, or visiting Power House and Paper Company. Assemble in Lobby of Hotel Niagara, 10 A. M.

Wednesday afternoon—Ride to Fort Niagara, 2 P. M. Assemble in Lobby of Hotel Niagara. Reception at Fort Niagara by Colonel Ingram and Company. Tea at Country Club, 4:30 P. M.

Illumination of Falls each evening.

Your morning newspaper and rose convey the best wishes of our Organization.

Hostesses—Mrs. William H. Hodge, General Chairman; Mrs. W. A. Scott, Chairman Reception Committee; Mrs. R. H. Sherwood, Chairman Automobiles and Rides; Mrs. Frank Guillemont, Chairman Registration; Mrs. A. M. Rooker, Chairman Shredded Wheat Bridge Tea; Mrs. N. I. Ardan, Mrs. E. E. Gillick, Assistants; Mrs. F. H. Towne, Chairman, Golf; Mrs. Elbert Ingram, Mrs. A. A. Palmer, Hostesses, Fort Niagara; Mrs. E. L. Burhyte; Mrs. G. P. Eddy, Co-Chairmen Country Club Tea.

Assistant Hostesses—Mrs. C. G. Leo-Wolf, Mrs. Frederick Schnell, Mrs. Oscar Baer, Mrs. L. M. Jayne, Mrs. H. A. Creamer, Mrs. Glenn W. Arthurs, Mrs. John L. Bishop, Mrs. F. I. Clark, Mrs. O. G. Harrington, Mrs. A. J. Lawler, Mrs. D. F. Patchin, Mrs. E. M. Rieger, Mrs. P. J. Sciarrino, Mrs. I. M. Walker, Mrs. E. W. Henry, Mrs. C. A. Wisch, Mrs. R. C. Martin, Dr. Anna Viele, Dr. Beatrice Smith, Mrs. G. L. Miller, Mrs. Frederick Leighton, Mrs. W. Roger Scott, Mrs. Robt. C. Martin, Mrs. Raymond S. Barry, Mrs. Charles C. Childs, Mrs. H. C. Dumville, Mrs. J. B. LaDuca, Mrs. F. R. McBrien, Mrs. N. W. Price, Mrs. L. J. Rozan, Mrs. W. C. Steele, Mrs. O. F. Walker, Mrs. G. Welch, Mrs. R. A. Wixson, Mrs. J. V. Farruggia, Mrs. A. L. Chapin, Mrs. Frank Talbot.

REPORT OF THE SPECIAL COMMITTEE ON PUBLIC RELATIONS

To the House of Delegates:

Gentlemen:

The undersigned, appointed under due authorization by the President of the Medical Society of the State of New York to meet with a committee appointed by the President of the State Charities Aid Association to consider problems arising on the common ground between medical practice and public health with a view to bringing about better understanding, and so far as practicable, harmonious action in the common interest of all concerned, are pleased to submit the following unanimous report:

Your committee met in New York, January 27, 1927, and considered in a general way the methods to be discussed and the policies to be adopted. It then went into session with the Committee from the State Charities Aid Association.

It was decided that the two committees should organize as a joint committee and Dr. George W. Cottis was elected chairman and Dr. Joseph S. Lawrence, Secretary.

The Committee held four meetings, each occupying the greater part of a half day. A Sub-Committee gave intensive consideration to the subject of county health units, and submitted a report which was accepted by the full Committee, recommending the establishment of county health units, and that the County Medical Societies should take the initiative therefore. The Committee considered general problems with which medical practice and health activities are concerned, and also considered a detailed questionnaire relating to many phases of concrete health activities, and the relations of practicing physicians thereto.

General Considerations

In view of the excellent progress in public health activities, and in view of the many benefits attributed thereto, it is generally agreed not only that present public health activities should continue unhampered, but also that they should be further developed in the future. For such activities to secure the best results, harmonious cooperation of all concerned is necessary. Heretofore and at present such harmonious cooperation has often been lacking with the result that health activities failed to accomplish their best results, and their effectiveness has been very often diminished.

Most of the basic principles upon which modern public health methods are carried on were established by the work of physicians. It is generally true that the success of public health activities has usually been in direct proportion to the interest taken therein by the medical profession. No other group has a better opportunity of studying public health conditions and health needs; no other group has a better opportunity for influencing the habits and modes of life of the public. For these reasons, and also because the work of the physician antedated that of health agencies, it is recognized that the physician has a very great interest in public health work, and that his activity in such work should be encouraged; and his cooperation at all times solicited.

All public health work should be undertaken with the assumption that the intimate relationship between physician and patient will not be disturbed, but will be encouraged. Voluntary health organizations should invite representation on their committees and boards from the organized medical bodies. New or drastic changes in the policies of such organizations should first be submitted to the representative medical organization for study and recommendations.

Relations Between Medical Organizations and Voluntary Health Agencies

It is fully recognized that County Medical societies, and county and other local voluntary health agencies are fully autonomous, and that no direction nor control over them can be exercised by state-wide organizations. In order, however, that the results indicated above, as being desirable, may be as fully secured as possible, it is believed that certain suggestions may appropriately be submitted for consideration to local health agencies and medical societies, action on their part of course being strictly optional.

It is believed that effective relations in the public interest will be promoted if voluntary health agencies on their part will include the following steps in their program:

(a) Invite the County Medical Society to designate a certain number of its members, say two, to become members ex-officio of its board of directors or executive committee, if there be one.

(b) Lay its annual program of activities before the County Medical Society for information and suggestions.

(c) Appoint a special committee to confer with a similar special committee appointed by the County Medical Society about matters that come up from time to time in which both groups are mutually interested.

(d) Report to the parent body of the voluntary health agency any matter as to which an accord has not been reached with the County Medical Society, in the hope that through conference between the parent body of the voluntary health agency and the State Medical Society any such matter may be negotiated and adjusted to the mutual satisfaction of all concerned.

(e) Conduct at least one open meeting each year to which the members of the County Medical Society are specially invited.

It is believed that these desirable results will also be furthered if the County Medical Society will include the following in its program:

(a) Accept the invitation from the voluntary health agency to designate certain of its members to serve as members ex-officio on the board of directors or executive committee of the voluntary health agency.

(b) Study and consider any program of activities that may be referred to it by the voluntary health agency for information and suggestions; and, if such program is approved, make a public statement to that effect, and otherwise support the program so approved.

(c) Appoint a special committee on public relations to confer from time to time with similar committees appointed by the voluntary health agency on matters of mutual interest to both agencies.

(d) Report to the State Medical Society any matter as to which an accord has not been reached with the voluntary health agency, in the hope that through conference between the State Medical Society and the parent body of the voluntary health agency any such matter may be negotiated and adjusted to the mutual satisfaction of all concerned.

In approaching the subject of concrete health activities, such as clinics, etc., it is believed that the following general statements, accepted by all the members of the Joint Committee, may be placed on record:

1. In all communities there exists a large amount of illness and poor health which does not seek and, therefore, does not receive medical diagnosis and treatment, at least not at a favorable stage.

2. Important new discoveries and improvements in preventive medicine should be made available at the earliest practicable time to all persons seeking medical aid.

3. Sound public policy demands that for all persons, irrespective of residence, there should be available the essentials of reasonably good medical diagnosis and care when ill.

4. The continued economic security and well being of the medical profession is an essential factor in meeting the preceding conditions.

5. In all health clinics and activities, the service of local physicians should be utilized and remunerated, and special skill or services should be secured when needed.

6. In order to conserve the largest usefulness and economic well being of the medical profession, and at the same time to bring progressive measures for the protection of health to the population generally, and to interest the population generally in seeking medical aid both curative and preventive, it is highly important that definite understandings be reached between the medical profession and others also engaged in the promotion of preventive health activities.

Your Committee gave very careful consideration to numerous detailed questions arising in programs in tuberculosis, mental hygiene, and other subjects, and arrived unanimously at detailed suggestions thereon which are appended to this report. We recognize that public health activities, and in some degree the practice of medicine, must change in the light of experience and of new knowledge. We submit these detailed recommendations as offering in our judgment helpful suggestions at this time to local health agencies, medical societies, and practicing physicians in the establishment of efficient and harmonious relationships in the promotion of public health, and in the adjustment thereof to the long established ideals and practices of the medical profession.

The members of this Joint Committee are keenly aware of the importance of the subject which they have been asked to consider, and are gratified that no obstacles have arisen to prevent unanimous agreement after full and frank consideration of all the facts involved, and believe that the adoption of the above recommendations by the State Medical Society and by the State Charities Aid Association, will tend to facilitate the more efficient conduct of health activities, to prevent misunderstandings and to promote the welfare of the people of the state.

Appendix A

Suggestions submitted by the Joint Committee of the State Medical Society and the State Charities Aid Association in regard to certain details of cooperation between practicing physicians and health workers in the conduct of health activities:

1. *Tuberculosis*

Tuberculosis clinics are necessary in most communities. In some localities the local practitioners can and will perform the necessary clinical services; in other communities they cannot. Until adequate local service is available, experts should be brought in. It is recommended that all County Medical Societies should consider organizing and carrying on post-graduate courses in tuberculosis.

In clinics where expert service is provided, local practitioners can render valuable assistance through proper cooperation with the expert, and such local practitioners should be remunerated from either public or private funds, depending upon local circumstances which can most advantageously be worked out with the cooperation of the County Medical Society.

Tuberculosis clinics should receive suspects and contacts referred by physicians or health officers, and also those making personal application. When a public health nurse discovers a suspect or contact case, she should receive the approval of the family physician before suggesting attendance at the clinic. If there be no family physician, the nurse may refer the case directly to the clinic. After the diagnosis of tuberculosis is made, the patient should be referred to a private physician when possible. Selection of physicians when there is no family physician should be left with whatever agency is conducting the clinic and the County Medical Society.

The medical director of the clinic, the public health nurse, and the private physician attending the case should cooperate to secure adequate and continued treatment, and the matter of developing cooperation to that end should be in the hands of the medical director of the clinic.

In the interest of public health, all cases applying to a tuberculosis clinic should be received for diagnosis, but no treatment should be offered except to patients who after investigation are found to be unable to afford the services of a physician.

2. *Mental Hygiene*

Clinics for the detection of mental deficiency and mental disturbance are necessary and desirable. Local practitioners should be expected to assist, and should be invited to participate in such clinics and to bring patients.

After a diagnosis is made and treatment has been outlined at the clinic, such mental cases not requiring commitment may generally be referred to private practitioners for treatment. Adequate and continued treatment calls for satisfactory cooperation between the clinic, the family physician and the public health nurse, and it is the duty of the clinic to seek and promote such cooperation.

3. *Pre-Natal Care as a Public Health Activity*

The Committee recognizes the value of adequate pre-natal care, but feels that as a public health activity it is still in the experimental stage, and only the following statements are warranted at the present time:

First: That the work is at present largely educational;

Second: That the demonstration in pre-natal work that has been and is being carried on in Tioga county by the State Health Department, assisted by the Maternity Centre Association, and with the cooperation of the Medical Society of Tioga county, should be thoroughly reported to other County Medical societies;

Third: In regard to pre-natal work, the Committee recommends that, after consultation with the County Medical Society, there should be established a public health nursing service, which will seek out the pregnant women of the community and if they are not already under medical care and observation, will bring them into contact with their physicians at as early a stage as possible.

4. *Welfare of Infants and Children of Pre-School Age*

The Committee believes that, where there are a number of infants and small children in a community, who, either through parental poverty or ignorance, do not receive adequate medical and nursing care, it is desirable to have child health stations. When such child health stations are established, they should be carried on under the direction of local physicians, whenever feasible, with the assistance of consultants, if desirable.

The responsibility for the conduct of child health stations involves the County Medical Society, the local administrative agency of such station, and any other interested group.

As to whether child health stations should receive for purposes of examination and diagnosis only children of indigent parents, or should be open to much larger groups, the Committee recognized that conditions in this respect at the present time differ as between the larger cities in which expert pediatric service is available and the rural areas and smaller cities in which generally it is not. In rural areas and smaller cities where pediatric services are not available, the Committee recommends that child health stations be open to all children whose parents may bring them for examination irrespective of economic status. In the larger cities it recommends that such clinics should not receive for examination children of parents who are able to pay for such examination at the rates at which it is to be had locally.

The interpretation of what constitutes treatment at child health stations should be left to the management of such stations and the County Medical Society.

Proper hospital facilities for the care of sick children should be made available in all parts of the state.

5. *The Control of Venereal Diseases*

Venereal disease clinics are essential for the diagnosis and treatment of cases of venereal disease in every community. As to how medical service should be provided, and as to whether local practicing physicians should participate in such clinics and, if so, on what basis they should be compensated, will depend upon local conditions.

The Committee suggests that public health authorities might assist private practitioners in securing adequate and continued treatment for all cases of venereal disease by disseminating advice and information from the clinics, by the services of public health nurses for following up cases, and by the continued free provision of salvarsan.

The Committee suggests that such clinics should receive all patients upon application and, later, through proper channels, investigate their ability to pay.

6. *School Hygiene*

The organization and conduct of school medical inspection are provided for in the Education Law of the state. The statute covers the subjects of medical examination and diagnosis, and follow-up work by school nurses. With respect to treatment, the statute provides that the school authorities shall notify the parents as to the existence of defects and physical disabilities. If the parents or guardians are unable or unwilling to provide the necessary relief and treatment of such pupils, such facts shall be reported by the school authorities to the school medical inspector, whose duty it is to provide relief for such pupils.

The Committee believes that all treatment should be performed by the family physician; that the school physician should submit to the parents the report of his findings; and that the parents should then be urged to have the treatment performed by the family physician or by some physician of their own selection.

Respectfully submitted,
George W. Cottis, *Chairman*
Wilber G. Fish
Thomas P. Farmer
Joseph S. Lawrence
W. Warren Britt
Terry M. Townsend

May 1, 1927.

SENECA COUNTY

The semi-annual meeting of the Medical Society of Seneca County was held May 12, 1927 at Seneca Falls. The morning session convened at 11 o'clock, and was occupied by a business session. Dr. Robert F. Gibbs of Seneca Falls was elected to membership and Dr. Robert F. Knight, formerly with the State Health Department, was reinstated to membership.

It was decided to inaugurate a summer meeting at the Seneca Falls Country Club, the first part of August. There is to be one scientific paper at this meeting, the rest of the time to be spent in recreational activities.

The following members were nominated for office:

For President, Dr. E. W. Bogardus, of Romulus; for Vice-President, Dr. W. M. Follette, of Seneca Falls; for Secretary and Treasurer, Dr. J. N. Frost, of Waterloo.

Dr. F. W. Lester reported for the Legislative Committee and urged more of the members to take advantage of the Group Insurance plan for physicians. He called attention to the fact that Seneca County had the second highest number of nurses for its population compared with all the other counties of the State.

Luncheon was held at the Gould Hotel. Following luncheon, Dr. S. A. Mumford, of the Clifton Springs Sanitarium, spoke on the subject of "Cardiospasm and Its Relation to General Practice." He first spoke of the classification of patients into two types, vagotonic and autonomic and described types of each. He spoke of the vagotonic type as peculiarly likely to suffer from cardiospasm and to have frequent vague digestive disorders, which after other pathology was carefully ruled out, could be readily explained by the symptoms of cardiospasm.

He then presented a number of cases with X-ray plates showing cardiospasm, detailed the type of treatment given these patients and spoke of their improvement under proper treatment. Some plates and histories illustrating differential diagnosis was also shown and explained. Dr. C. H. Jewett, Chief of X-ray staff of the Sanitarium, accompanied Dr. Mumford and explained the plates in detail. The paper was extremely interesting and very profitable to the general practitioner. The paper was discussed by Drs. F. W. Lester, George M. Brandt and A. Letellier of Seneca Falls, and Dr. T. M. Cole, of Romulus.

OTSEGO COUNTY

The Semi-Annual Meeting of the Otsego County Medical Society was held in Cooperstown, N. Y., on May 4th, at 5 P. M. The meeting was called to order by President F. H. Marx. The minutes of the March meeting were read and approved.

Dr. James Greenough of the Bassett Hospital was received into membership. Dr. M. H. Atkinson, having moved to Catskill, asked to have his name transferred to Catskill.

On motion the meeting to be held in September was voted to be held at Three Mile Point. It was to be a clam bake and the physicians of Cooperstown were appointed a Committee of arrangements. On motion of Dr. Lang the ladies were to be invited to the bake. On motion of Dr. Champlin the Society of Chenango, Schoharie and Delaware were to be invited to join with us for this occasion.

The matter of a County Laboratory was referred to a committee who should present the matter to the Board of Supervisors at their next meeting. Dr. Greenough, Cruttenden, Atwell, Mills and Champlin were appointed such committee.

Dr. Bissell having left the County and Dr. Warren being unable to attend the State meeting, Dr. R. D. Champlin was elected to act as delegate for the meeting in Niagara Falls in May.

After a dinner at the Fennimore, the members went to the Imogene Bassett Hospital where Dr. H. L. K. Shaw of Albany gave an instructive address on Malnutrition of children.

Members present: Drs. Marx, Augustine, Parish, Mills, Cooke, Champlin, Lang, Smith and Brownell of Oneonta; Ford of Otsego; Warren and Winnans of Franklin; Craig of Davenport; Wakeman of Andes; Maurer of Margaretteville; Loomis of Sidney; F. L. Winsor of Laurens; Swanson of Springfield Center; Cruttenden, Atwell, Greenough, Mackenzie of Cooperstown; Bolt of Worcester.

A. H. Brownell, *Secretary.*

BROOME COUNTY

The Broome County Medical Society held its regular monthly meeting on Tuesday April 5th, at the Arlington Hotel at 8:30 in the evening. After the usual business meeting, Dr. Harry A. Bray, Raybrook, N. Y., Medical Supt., N. Y. State Hospital for Incipient Pulmonary Tuberculosis, Raybrook, N. Y., gave an address to the Society on "An Appraisal of Certain Physical Signs in the Diagnosis of Incipient Pulmonary Tuberculosis," illustrated by lantern slides. Dr. Bray's paper was very interesting and instructive and was presented in a pleasing and scholarly manner. An active discussion with questions followed. As is the usual custom, a buffet luncheon was served to the members directly after the meeting.

A LETTER FROM DR. STROGANOFF

Following his receipt of the January 15 issue of this Journal containing the article of Dr. Stuart B. Blakely of Binghampton on Stroganoff's treatment of eclampsia and Russian posters on child welfare, Dr. Stroganoff sent Dr. Blakely the following letter dated Leningrad, February second:

"Dear Colleague,

I thank you very much for your sending of *New York State Journal of Medicine* and with great pleasure I read your paper. You wrote better than some one. But you have some mistakes. (1). I do not use "morphine sulfate" but "muriatic." (2). I give digitalis not at pulse rate 100, but 110 and over.

All rest is beautiful!

I read also upon your Annual Meeting at Niagara Falls, and with great pleasure should be there, if there was the question about eclampsia.

Did you read last number of "Zentralblatt für Gynaekologie," (N. 8, 1927)? What dreadful mortality from eclampsia in Germany (p. 490), where they not apply puctually my method. And you lose yearly 5,000 mothers and about 7,500 children: The strife with this disease has international importance. But as the governments, as the accoucheurs, make very little for the diminution of this dreadful mortality, although they speak very much about that. I mean, if you lost yearly 5,000—12,000 cows, or horses, your measures for diminution of such mortality would be more energetic.

With kindest regards to you and your wife,

Respectfull,
W. Stroganoff."

EMERGENCY MEDICAL SERVICE IN THE RURAL DISTRICTS

The New York *Times* of April 4 had a news item stating that the Grange of Genesee County had appointed a committee to confer with the Genesee County Medical Society regarding provision for obtaining the services of physicians in emergencies. The immediate occasion of the action of the Grange was the recent death of a boy whose mother was unable to obtain a doctor although she had called five during the night, and she lived only two miles from the city of Batavia.

It would not seem that this case is to be classed as rural. But whether it was rural or urban, the proper procedure was followed when the Grange, a lay organization representing the patient, appointed a committee to confer with the County Medical Society representing the physicians. This plan of action is that advocated by the Medical Society of the State of New York in forming its committee on Public Relations.

CANCER RESEARCH

Judges on the bench are frequently divided in their opinions; and it is therefore to be expected that laymen should draw some unexpected conclusions regarding medical subjects. The New York Herald-Tribune of May 4 has printed a letter from a Brooklyn layman who says:

"You will recall Mr. William L. Saunders recently offered a substantial reward for any one who may discover a preventive and cure for cancer.

"At the time of the announcement Mr. Saunders said: 'Discoveries are not always made by experts—physicians, like business men, are not always the best research workers.' The matter was placed in the hands of the American Society for the Control of Cancer, which organization sent me a form letter, the second paragraph reading: 'The decision upon which these awards are made is to be determined by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.' A layman stands no chance in the world to impress this array of men.

"It is very likely the last named body will O. K. any program that does not embody surgery in some form? Doctors have steadfastly declared the only relief from cancer was a speedy operation—the sooner after discovery the better. The question of diet and the accumulation of material foreign to the body is scoffed at by this group as having anything in common with cancer, its cause, prevention or cure.

"Can these men, trained to wield a knife, honestly and sincerely serve mankind by acting as judges on this very vital problem?"

The correspondent has no conception of the vast amount of cancer research work that has been done in which diet and intoxications have been thoroughly investigated and found to have no significance in cancer. While the surgeon regrets that at present an operation is almost the only known remedy that offers a hope for the cure of cancer, yet he will be the first to welcome the discovery of a better means of treating the disease.

MAN IN PAST AGES

It has often been said that interest in one's ancestry is a sign of old age. However, man today, physically and mentally, is almost identical with his ancestors, for he inherits their characteristics according to the strict laws of heredity. Certainly man has changed little during historic ages.

The New York *Times* for May 17, comments editorially on the proposed excavation of Herculaneum, the city of Hercules. Physicians will be interested in the revelations for they are expected to show the daily life of the people, and the sanitary arrangements of the homes to a far greater extent than the excavations of Pompeii, both of which cities were buried by an eruption of the volcano Vesuvius in the year 79 A.D. While Pompeii was buried under soft ashes, Herculaneum was sealed in hard lava so that the contents of its houses are well preserved.

But the 2,000 years of burial of Herculaneum are but a moment compared with the vast stretches of time which have elapsed since the first evidences of man were buried in the protecting earth. The New York *Times* of May 17 has a news item which tells of the discovery of pieces of bone which may have been fashioned by men millions of years ago. The article says:

"Pieces of bone, which may or may not have been fashioned by the hand of a tertiary primate, but which curiously resemble implements made by the Aztecs at a much later date, were exhibited last night at the American Museum of Natural History by Professor Henry Fairfield Osborn with the explanation that they had been dug out of Pliocene fossil beds in Western Nebraska, during the Summers of 1925 and 1926.

"If these bone objects were not the natural products of wind and sand action, Professor Osborn said, they must be construed as evidence that man lived in America in the Pliocene, or at a period of from two to three million years ago.

"Professor Osborn wished to make it clear to his audience that the supposed bone instruments may not be authentic, and that opinion at the museum is at present divided. He said he had not made up his own mind as yet. 'But whether these Nebraskan fossil implements are genuine or not,' he said, 'there was a very long bone-tool making age all over the world antecedent to the flint-working age, and subsequent to a still earlier wooden tool age.'

"In support of the ability of Pliocene man to fashion implements, Professor Osborn exhibited a series of flint rostro-carinates, or 'beak-keeled scrapers,' just received from the upper Pliocene beds of England, through J. Reid Moir. He said it was fairly well established that man lived in England 1,250,000 years ago, but that most authorities have been convinced that man has dwelt in America for 10,000 years.

"A paper by Harold J. Cook was read at the museum meeting. In it Mr. Cook declared that recent discoveries in Texas and New Mexico of Plistocene bison skeletons containing spear points and arrow heads gave evidence that man must have lived on this continent at least several hundred thousand years ago."

BRITISH BEER

The alcoholic question has many phases which trouble England as well as America. The New York *Times* of May 5 said editorially:

"By way of assault upon the Trades Union bill the British Labor Party has been invited to consider a six months' boycott on liquor and tobacco. The chief purpose is to hit Mr. Baldwin in his pocket nerve. The Exchequer derives about $650,000,000 annually from excise duty. Even the ingenious and optimistic Chancellor Churchill would have to do some active scurrying about to plug up the hole if Labor decides upon the heroic remedy. But Treasury deficits are the least of the danger. An English nation deprived of its beer for six months is apt to develop an utterly un-English ugly temper that bodes ill for the existing system.

"British per capita consumption of milk is less than one-fourth of that in the United States. The British public consumes 700,000,000 gallons of milk, as against 960,000,000 gallons of beer, and the beer bill is highest where there are most children in need of milk. The Bermondsey section of London demanded in 1924-25 no less than 5,500,000 gallons of beer, but got along with 1,210,000 gallons of milk.

"It is, however, a national habit a couple of thousand years old, counting from when British mead gave way to English ale, and it is doubtful whether even the present high tide of party feeling can make a serious breach in it."

VIVISECTION

The word vivisection, meaning cut up alive, carries a sinister meaning to the lay mind. Whatever animal experimentation may have been in the early days of science, it no longer bears the mark of cruelty, which has heretofore been the basic objection to the practice. But now there has risen a new class of objectors who wish to exclude dogs from experimentation on the ground that they are man's friend. The New York *Times* discusses this point on April 15 in the following editorial:

"When advancement in science has demanded it, even human beings have been willing laboratory material. While Dr. Walter Reed was developing the theory that yellow fever was carried by mosquitos, men volunteered for his tests. Many human lives have been sacrificed in the scientific battle against disease. It may be that people who feel that dogs should be exempted from surgical experiment are trying to let them off a job that the dogs themselves would be willing to take on. On occasion dogs have been willing enough to sacrifice themselves for their human friends."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

The Tired Child. By Max Seham, M.D., and Grete Seham, Ph.D. With a foreword by Isaac A. Abt, M.D. 12mo of 342 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, [c. 1926]. Cloth, $2.00.

Four Thousand Years of Pharmacy. An Outline History of Pharmacy and the Allied Sciences. By Charles H. LaWall, Ph.M., Phar.D. Octavo of 665 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, [1927]. Cloth, $5.00.

International Clinics. Edited by Henry W. Cattell, A.M., M.D. Thirty-seventh Series, Volume 1. Octavo of 304 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1927.

Lessons on Massage. By Margaret D. Palmer. Revised and the Massage Section Rewritten by Dorothy Wood, M.R.C.S., L.R.C.P. Sixth Edition. Octavo of 320 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.00.

Outlines of Common Skin Diseases Including Eruptive Fevers. By T. Caspar Gilchrist, M.D. Octavo of 54 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $1.50.

Mother and Unborn Child. A Little Book of Information and Advice for the Prospective Mother. By Samuel Raynor Meaker. Octavo of 209 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50.

Immunity in Syphilis. By Alan M. Chesney. Octavo of 85 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50. (Medicine Monographs Volume XII.)

Clinical Neurology for Practitioners of Medicine and Medical Students. Largely Based Upon the Book by Prof. Dr. Hans Curschmann. (A Free Translation with Changes and Additions.) By Edward A. Strecker, M.D., and Milton K. Meyers, M.D. Octavo of 410 pages. Philadelphia, P. Blakiston's Son and Company, [1927]. Cloth, $3.50.

The Specialties in General Practice. Compiled by Francis W. Palfrey, M.D. Octavo of 748 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $6.50.

A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology. By Torald Sollmann, M.D. Third Edition, entirely reset. Octavo of 1184 pages. Philadelphia and London, W. B. Saunders Company, [1926]. Cloth, $7.50.

Health Supervision and Medical Inspection of Schools. By Thomas D. Wood, A.M., M.D., and Hugh Grant Rowell, A.B., M.D. Octavo of 637 pages, with 243 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.50.

Applied Physiology. By Samson Wright, M.D. With introduction by Swale Vincent, M.D. Octavo of 418 pages, illustrated. London and New York, Oxford University Press, [1926]. Cloth, $4.50. (Oxford Medical Publications.)

The Treatment of Chronic Arthritis and Rheumatism. By H. Warren Crowe, D.M., B.Ch. Octavo of 196 pages, illustrated. London and New York, Oxford University Press, [1926]. Cloth, $2.75. (Oxford Medical Publications.)

Index and Handbook of X-Ray Therapy. By Dr. Robert Link. With a foreword by Prof. Holzknecht. Translated by T. I. Candy, M.B., B.CH. 12mo of 121 pages. London and New York, Oxford University Press, [1926]. Cloth, $2.25. (Oxford Medical Publications.)

The Psycho-Pathology of Tuberculosis. By D. G. Macleod Munro, M.D. 12mo of 92 pages. London and New York, Oxford University Press, [1926]. Cloth, $1.75. (Oxford Medical Publications.)

Heliotherapy. With Special Consideration of Surgical Tuberculosis. By A. Rollier, M.D. [Second Edition]. Translated by G. de Swietochowski, M.D. Octavo of 318 pages, illustrated. London and New York, Oxford University Press, [1927]. Cloth, $6.25. (Oxford Medical Publications.)

Elements of Hygiene and Public Health. An Introduction to Preventive Medicine for Students and Practitioners of Medicine. By Charles Porter, M.D. Second Edition. 12mo of 425 pages, with 98 illustrations. London and New York, Oxford University Press, [1926]. Cloth, $4.50. (Oxford Medical Publications.)

Diseases of the Intestines. By A. P. Cawadias, O.B.E., M.D. Octavo of 299 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

Applied Refraction. By Homer Erastus Smith, M.D. Octavo of 131 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $2.75.

X-Ray Diagnosis. A Manual for Surgeons, Practitioners and Students. By J. Magnus Redding, F.R.C.S. Octavo of 228 pages, with 80 Skiagraphic plates. New York, William Wood and Company, 1927. Cloth, $7.00.

Mineral Waters of the United States and American Spas. By William Edward Fitch, M.D. Octavo of 799 pages, illustrated. Philadelphia and New York, Lea and Febiger, 1927. Cloth, $8.50.

Modern Medicine. Its Theory and Practice in Original Contributions by American and Foreign Authors. Edited by Sir William Osler, Bart., M.D. Third Edition, thoroughly revised. Re-edited by Thomas McCrae, M.D. Assisted by Elmer H. Funk, M.D. Volume 4. Diseases of the Respiratory System—Diseases of the Circulatory System. Octavo of 1011 pages, illustrated. Philadelphia, Lee and Febiger, 1927. Cloth, $9.00.

The Modern Practice of Pediatrics. By William Palmer Lucas, M.D. Octavo of 962 pages, illustrated. New York, The Macmillian Company, 1927. Cloth, $8.50.

Nouveau Traité de Médecine. Publié sous la direction de G.-H. Roger, F. Widal and P.-J. Teissier. Fascicule IX. Affections du sang et des organes hématopoiétiques. Octavo of 802 pages, illustrated. Paris, Masson et Cie, 1927. Cloth, 80 Francs.

BOOK REVIEWS

The Pathology and Treatment of Diabetes Mellitus. Second Edition. By George Graham, M.D. 12mo of 230 pages with 26 illustrations. London and New York, Oxford University Press, 1926. Cloth, $2.75. (Oxford Medical Publications.)

The general arrangement of the first edition has been followed in the second edition, the first part giving an account of the physiology of the sugar metabolism and the second describing the different types of diabetes mellitus and the treatment of the disease. Chapters have been added on the principles and details of treatment with insulin and many alterations made in the text to conform with new facts.

The ladder diet in use at St. Bartholomew's hospital since 1915 has been adapted to the use of insulin. The author prefers this to the maintenance diet more generally used in the United States. The advantages claimed are simplicity and the ease with which variations can be made by the patient. Rest in bed is advised at the beginning of treatment for two weeks. There are ten diets ranging from a hunger day for two days to a diet of 1,562 calories in twenty days of P67, C48, F117. This last diet may be increased by 100 calories by adding 13 grams of protein and 5 grams of fat; this general plan is continued until a sufficient diet is reached. Woodyatt's method of estimating the ketogenic anti-ketogenic ratio is described.

The book is well written and of scientific and practical value. W. E. McCollom.

Histological Technique. For Normal Tissues, Morbid Changes and the Identification of Parasites. By H. M. Carleton, M.A., B.Sc., D.Phil. Octavo of 398 pages with 17 illustrations. London and New York, Oxford University Press, 1926. Cloth, $5.00. (Oxford Medical Publications.)

Mr. Carleton's book is an excellent and most successful attempt on the part of a brilliant scholar and teacher to alleviate the trials and struggles of those constantly confronted with the necessity for understandable information and ready help, by presenting his subject in a practical volume, couched in terms clear and concise and within the scope of the most humble lay technical worker or professional beginner.

Mr. Carleton's book takes for granted that those who are about to read his book are in search of information which he dispenses in a masterly fashion and most generously, never misleading and always pointing out the simplest effective methods, and explains always in detail why he considers them so.

The book is introduced by a very clear and interesting description of "Living Matter—The Cell—Nuclear Components—Cytoplasmic Component—Theories of the Structure of Protoplasm—Tissues," then proceeds to give all the ways and means of preparing tissues for microscopical examination.

The "Table of Errors in Section Cutting and Their Remedy," also "Table of Faults in Dehydration—Clearing and Embedding" are of value to all interested in this work as they include problems and their solutions that can only be encountered and mastered by long practical experience. They are invaluable to the inexperienced and even the most skilled worker will find some new and helpful suggestion in the list.

If every beginner had access to such a book, many discouraging errors and great loss of time would be avoided.

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At a glance one believes, and upon study is without a doubt convinced that Mr. Carleton has written a book of help and interest to all who are engaged in pursuit of the subjects presented. Margaret Padine.

Life Insurance Medicine. A Study of Some of Its Problems and Their Relation to Clinical Medicine. By Members of the Medical Department of the New England Mutual Life Insurance Company. Volume I. Octavo of 219 pages with illustrations. Boston, New England Mutual Life Insurance Co., 1926.

The volume is a splendid contribution to Life Insurance Medicine as well as to clinical medicine. The section on Glycosuria and its significance is illuminating especially with reference to a differentiation and methods of approach in selecting a non-diabetic and an established pathological diabetic. The historic and early work with glycosuria has been thoroughly considered.

That section of the book devoted to "The Cardio Respiratory Test" is most interesting and instructive. The author, Dr. Howard M. Frost, has made a real contribution to cardiology in placing before the medical profession this functional-circulatory test. Dr. Frost states, "The need for a more adaptable test of Cardio-Vascular function has been apparent for many years. Reasoning from the previous observation that a considerable change in systolic pressure resulted from blowing steadily against resistance, the idea arose that by varying the intra-thoracic pressure one might produce a strain upon the cardio-vascular system, with synchronous changes in blood pressure, cardial rate or rhythm which would offer some indication of the severity of the strain and of the efficiency with which it was resisted."

The description of apparatus is given in detail, as well as the technique for carrying out the test. Reactions to the test, both normal and abnormal are well described graphically with many case reports. The functional capacity and reserve of the myocardium is readily determined and a normal reaction curve established as a result of application and wide experience with this apparatus in competent hands. The actual presence of valvular disease is shown in many instances to be of little or in some cases no impairment at all in selection of individuals for standard life insurance. Numerous individuals studied previously and considered impaired lives after medical examinations have been found to show a normal reaction to strain put upon them by this functional test and have been accepted at standard rates for life insurance with an experience which now shows the practical value of this method in a study of 1,500 cases. G. Holbrook Barber.

The Reproduction of Life. A Handbook of the Science of Reproduction in Nature and Man. By A. J. Cokkinis, F.R.C.S. 12mo of 287 pages, illustrated. New York, William Wood and Company, 1926. Cloth, $3.50.

Book publishing houses are producing a considerable number of books on this subject. Some of them have a little virtue, others much, but this one falls in the former class, as the author takes things for granted that are the subject of much debate. Often these matters are entirely open for investigation. He believes in acquired characteristics in a broadness that no one accepts, and the theory of evolution becomes the law of evolution with him. Many well known facts are presented, but there is too much taken for granted for this book to have an important place among the books on the subject.

J. Arthur Buchanan.

OUR NEIGHBORS

BEZOAR STONES

The May issue of the *Illinois Medical Journal* contains a notice of a book on Borneo Jungles by Dr. William O. Krohn, of Chicago. The following quotation is Dr. Krohn's description of trade in bezoar stones:

"There is one species of commercial transaction in which the Dyak has the edge on the Chinese trader. Usually the Chinaman takes advantage of the superstition of the humble Dyak, but here is one instance in which the tables are turned and the Dyak has full opportunity to take the Chinaman into camp because of the latter's superstitious belief in the magical medicinal properties of bezoar stones. The Chinese have their emissaries gather these 'stones' from all over the world. Bezoar stones belong to the 'aristocracy' of a Chinese doctor's heterogeneous collection of remedies. Medicinally a bezoar stone is an 'ultra' to the Chinaman as birds'-nest soup is gastronomically.

"Speaking generally, bezoar stones are concretions sometimes found in the stomach or intestines of ruminants and some other animals and consist of mineral salts such as lime and magnesium, formed about a nucleus of some foreign substance. Some contain hair or vegetable fiber. They are divided into three groups: the oriental from the wild goat of Persia and various antelopes; the occidental from the llamas of Peru, and the German from the chamois. Of these three the oriental is regarded as having the highest medicinal value, but in no wise comparable to that attributed to those found in Borneo. Bezoar stones secured in Borneo are of two kinds:

"1. Those that are simply gallstones of a monkey. These are greenish brown in color and are accredited with the greatest medicinal virtues by the Chinese.

"2. Concretions that gather in an external wound of the porcupine. These, like the gallstones of the monkey, are of very light weight. They are of a brown color and taste like quinine.

"When a Dyak has a bezoar to dispose of, he assumes a kingly attitude like unto that of an exclusive dealer in diamonds or pearls. He allows it to be noised about that he has one or more such 'priceless jewels' in his possession and leaves it to his fellow Dyaks to convey this information to the first Chinese trader that visits the kampong. It is beneath his new dignity to approach the Chinaman. The Chinaman must come to him, as he sits in kingly state before his apartment of the tribal lamin. In the transaction that is sure to follow the Dyak does not, like the Chinese or other orientals, haggle and dicker, but sets his one price, which he will not reduce in the slightest, regardless of all discussion and argument. The Chinaman simply must come to his terms. It is gratifying thus to see the Dyak, in selling bezoar stones, score one on that slant eyed trader. But eventually the Chinaman gets even, when, with a stock of tinselled ornaments and other baubles, he revisits the Dyak settlement just before a celebration of the Feast of the New Year."

THE PHYSICIAN AND PREVENTIVE MEDICINE

The *Texas State Journal of Medicine* for May contains an editorial entitled "The Physician and Preventive Medicine" from which the following extracts are taken.—Editor's Note.

"Until recent years the only preventive medicine practiced was by way of a side line with the physician engaged in the practice of medicine. There was no such thing as 'public health'. Indeed, health was a matter of most private concern to most people, and the subject was not one for discussion in polite society. The family physician had not then become extinct. That is to say, the physician had not abandoned or been caused to abandon, his complete responsibility for the physical, mental and even at times moral welfare of the families who committed themselves to his care. It is true that he did not collect for any service, as a rule, except that rendered the family in time of distress—and frequently not then. Nobody else knew anything about the art of medicine, and certainly anything about the application of the science of medicine. The doctor had to be the authority on all such matters. Be it said to his credit, incidentally, he discharged this unpaid for obligation 100 per cent and better, considering the state of his knowledge and the opportunity that he had to do so.

(*Continued on page 632, adv. xvi*)

In the Broadest Sense . . . . .

> *"Nutritional disturbances are due to a disproportion between the nature of the food and the ability of the organism to digest and assimilate."*
>
> *—Abt's "Pediatrics."*

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(*Continued from page* 630)

"No matter what we do or how we do it, our purpose is to keep people from getting sick and to so improve their surroundings that when they do get sick they will be in a better position from a curative standpoint, than they would otherwise be. In other words, we get right back to the bedside, and no human being can comprehend public health or any other sort of medicine who has not thoroughly grounded himself in the fundamental principles involved in its practice.

"This is not to argue that every public health worker should be a doctor, nor that every doctor should be a public health worker. There is always a dividing line between the responsibilities that should be assumed by the lay health worker and those which should be directed by the trained and educated physician. Our success in the public health field depends absolutely upon our ability to determine in each instance just where this line lies. Because of the frailties of human nature, there will always be those laymen who resent the preëminence of the physician in this field, and who will strive to substitute for his services those of untrained, medically speaking individuals who may be designated as 'sanitarians,' 'public health nurses,' 'sanitary engineers,' or what not. On the other hand, there will always be physicians who resent the intrusion of the layman in this field and will arise in the dignity of their profession and damn them all. The answer to the situation lies between these, and it is one of the hopeful signs of the times that the layman and the physician are combining their efforts rather judiciously on the whole, if uncertainly in many particulars.

"Unquestionably, the director of public health activities, speaking broadly, should have a medical education in advance of entering this special field. It is just as necessary that this be the case as it is that the man who specializes in eye, ear, nose and throat work, or surgery, or any other subdivision of the field of curative medicine, shall have had training in general medicine.

"The physician should not only maintain his position as the proper and legitimate repository of medical knowledge, in whatsoever field, but assume his share of the responsibilities involved.

"The hope of the lay public in regard to its physical condition is that these matters shall always be considered as strictly personal and to be handled on a private arrangement basis. Officialdom and bureaucracy cannot possibly have a place in curative, and it should not have a controlling place in preventive medicine."

THE COUNTY DISTRICT AND STATE MEDICAL ASSOCIATIONS

The *Journal of the Medical Association of Georgia* for May contains an article on the State Medical Society and its component societies, by Dr. C. L. Ayers of Toccoa, Georgia. The article might equally well be applied to New York State and illustrates the fact that physicians and their organizations are the same throughout the nations, as the following abstracts will show.—EDITOR'S NOTE.

"The County Society is an absolutely essential unit of medical organization. Our state and national associations cannot succeed unless the county societies properly function. It is in the county societies where the eligibility of physicians is passed upon, and when a member is admitted into the county society he automatically becomes a member of the state association, and is eligible for membership in the A. M. A.

"In many of the Georgia counties, there are only a small number of physicians, but our state parliamentarian has ruled, that two members can organize a county society, one for President and one for Secretary. So every county in Georgia should organize, in order that it may be represented in the State Association.

"Although the number of physicians in many counties is so small that it is not practical to have at their meetings a scientific program, yet there are many things that can be accomplished by having regular meetings. In all matters pertaining to the public health, the opinions of the physicians in the community are sought, so they should get together and have a full and frank interchange of views, that they may have intelligent unity and harmony on all matters pertaining to health conditions. For instance, if there is an epidemic of any kind in the county, and one doctor advises one method of dealing with it, another doctor some other method, then the laity, or county officials are at sea as to what procedure to take. Likewise, in order to secure helpful legislation, the profession should be in harmony, and should advise without legislative bodies, and by so doing could secure such laws as would protect the health of the community and safeguard many lives.

"Also occasional meetings of the doctors in a county promotes mutual respect, and goodwill, and goes far to destroy petty jealousies which often exist among fellow practitioners.

"I have felt for a number of years that the District Society is rendering more service to a larger number of physicians of the state, than any other medical society.

"With our good roads and automobiles the district meeting is usually accessible to all the doctors in the district. The meetings being held

(*Continued on page 634—adv. xviii*)

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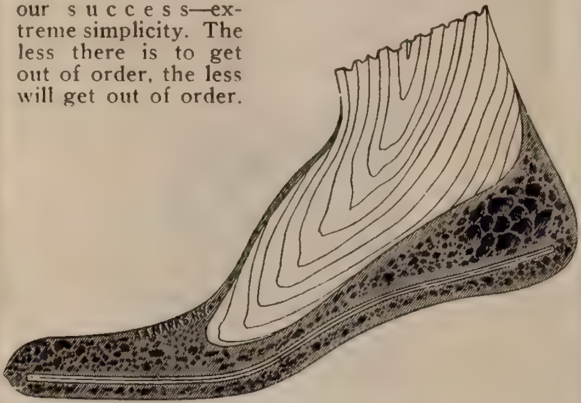

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(*Continued from page 633*)

twice in each year gives every physician an opportunity to present a paper, if he desires, an many more should avail themselves of this privilege than do. Some of the very best scientifi programs I have ever attended have been at district meetings.

"Membership in the State Association carrie with it many advantages. The scientific program are always good and if well attended is equivalent to a short post-graduate course. The socia entertainment is usually splendid, and more s now since the ladies' auxiliary has added so much to this feature. Membership in the State Association gives each member a splendid monthly Journal, which ranks among the best state journals in the United States. Membership entitles each member to the medical defense feature if he happens to need it. The scientific and commercial exhibits are usually good and instructive

"One of the greatest fields of service of the State Association is in the line of public health work, to enlighten the general public on health problems, and by helping to secure such legislation as will aid in preventing diseases, and thereby prolonging and adding comfort to life. In contrast to the indifference of former days, popular interest in preventive medicine is now widespread and rapidly growing.

"Membership in, and active participation in the work of a medical society, are of great educational value to the physician. It affords personal contact with fellow practitioners in the courteous discussion of medical subjects and professional problems and promotes mutual respect and goodwill.

"Concisely written reports of interesting clinical observations presented before medical societies, and for publication, are splendid means of self-education and furnish a valuable addition to medical literature.

"The desire for recognition and honor is natural, but all cannot be Presidents of the A. M. A., the Southern, or the State Association, but every reputable physician can be a member of his county, district, and state societies, and by so doing, better equip himself to serve those who employ him. After all, far more important than honor or recognition is the laudable desire which finds satisfaction in work well done, whether any one sees it is well done or not.

"If we would get the most out of our professional lives, we should be constantly endeavoring to add to our knowledge and equipment as physicians, and I know of no better way than the systematic reading of medical journals, an occasional post-graduate course, and the attending of medical meetings both County, District, and State."

QUARANTINE METHODS

The *Nebraska State Medical Journal* for April prints a circular letter issued by the State Bureau of Health explaining the method of reporting and quarantining cases of communicable disease. New York physicians will be interested in the method because it is radically different from their own.—Editor's Note.

"Note that the physician is only required to report his reportable cases to the secretary of the board having jurisdiction. In the county that is the county superintendent. In the cities, the secretary is the chief of police, and in the smaller towns, the city marshal. When the physician has so reported, he has done all that the law or rules require. It is no part of the physician's duty to establish and maintain quarantine, that being the duty of the police power of the state. In the county the quarantine officer is the sheriff, and it is his duty to establish and maintain quarantine or placard. The sheriff may delegate this to the attending physician if the physician sees fit to serve, but the physician is not required to act if he does not so desire. In the corporate limits of cities and towns, the physician must report to the chief of police or marshal. When he has done so, he has complied with all the law and regulations required, it being then the duty of the chief of police or marshal to establish and maintain quarantine.

"When the minimum time of quarantine is up, and the attending physician is satisfied that the case is safe to release, he should so notify the quarantine officer. Then it is up to the Board to see to the release. But if such Board does not deem it best to issue a release, the attending physician need not worry or bother himself further in the case, as he has discharged his full duty to his patient, and the responsibility for release rests with the Board.

"Uniformity and system in the matter of handling contagious diseases will make for efficiency the same as in any other activities."

AMBROSE PARÉ

The May issue of the Virginia Medical Monthly has the following observations on Ambrose Paré, the famous French surgeon, and father of surgery:

"Paré was a very practical man, full of common sense, and was more impressed by results than he was by the opinions of authorities. In 'The Apology and Treatise' in which he replies to Gourmelen's condemnation of his use of ligatures in amputations, while he cites authorities to show that bleeding vessels should be tied, he relies chiefly on re-citing successful cases to prove the correctness of his operation. His zeal in the quest for successful remedies is shown in the puppy fat

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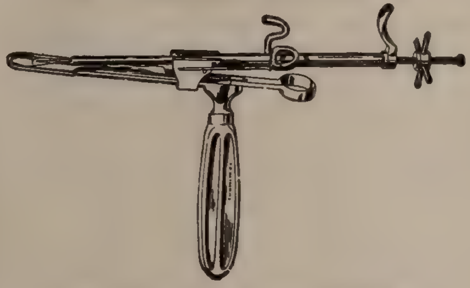

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(*Continued from page* 635)

episode. At Turin he met a surgeon who claimed to have an invaluable remedy for arquebus wounds, and it was two years before he could get from him the secret recipe, which consisted of new-born puppies boiled in oil of lilies, mixed with earthworms, prepared with oil of Venice. Arabian ideas in therapeutics were still dominant throughout Europe. Bezoar stones were thought to be universal antidotes. Charles IX had such a concretion of which he was very proud, and Paré persuaded the king to try it on a criminal who was condemned to death. Accordingly, the criminal was given a poison and immediately the bezoar stone, but died in seven hours. At the autopsy, Paré showed that he died of corrosive sublimate poisoning. His opinion of mummy and unicorn's horn, two remedies held in the highest esteem, is interesting. Both were costly remedies, and as the result, mummies were sometimes made in France. Paré says, 'Nevertheless, I believe that they are as good as those brought from Egypt; because they are none of them of an value. Thereupon we will send them back t Egypt, as we will the unicorn to inaccessib deserts.'

"Paré's practical nature is further show by his clinical observations. He was the fir to suggest that syphilis was the cause aneurysm. When alopecia is due to this di ease, the patient is to be rubbed with mercuri ointment 'until he enters the kingdom Bavaria,' a pun on the French word baver, t salivate. Paré was the first to discover autopsy metastatic abscesses of the intern organs following wounds. Finally, as an ev dence of Paré's common sense, is his exper ence during the massacre of St. Bartholome He pursued his calling with such singleness purpose, and was withal so useful, that hi religion was unnoticed. Charles IX is said t have commanded Paré to come to the king chamber and not to budge from it, saying tha 'it was not right that one who could save s many poor people should be thus massacred.'

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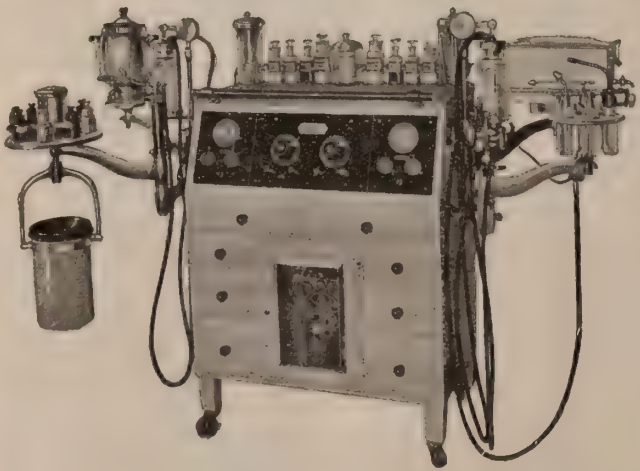

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THE WOMAN'S AUXILIARY OF THE MEDICAL SOCIETY OF NEW JERSEY

The progress of the Woman's Auxiliary of New Jersey will interest the doctors of New York State in view of the approval of the auxiliaries by the House of Delegates of the Medical Society of the State of New York.

The Journal of the Medical Society of New Jersey for May describes the formal organization meeting of the State Auxiliary which will be held on June 9, during the annual meeting of the Medical Society of New Jersey at Atlantic City. The program reads:

"Launching of the Women's Auxiliary to the Medical Society of New Jersey will take place at a meeting in room 'H' of the Hotel Haddon Hall, Atlantic City, Thursday, June 9, 1927, at 3 P. M. Dr. James S. Green, President of the Medical Society of New Jersey, will open the meeting and introduce Mrs. W. Wayne Babcock, of Philadelphia, Chairman of the Organization Committee of the Woman's Auxiliary to the American Medical Association, who will address the assemblage on 'The Reasons for Forming Auxiliaries to Medical Societies.'

"This address will be followed by a short talk on 'The Opportunities Knocking at the Doors of State and County Auxiliaries,' by Dr. J. Bennett Morrison, Recording Secretary of the Medical Society of New Jersey.

"The meeting will then be turned over to Mrs. Samuel Barbash, Chairman of the Organization Committee, who will report upon the work accomplished in organizing county branches, will present the list of delegates chosen by the county auxiliaries to attend this convention, and will introduce Mrs. A. Haines Lippincott, as the first President of the Woman's Auxiliary to the Medical Society of New Jersey, with authority to proceed with formal organization of such a body. Following presentation of the other temporary officers, appointed by President Green as previously mentioned, organization will proceed under the presidency of Mrs. Lippincott.

The same issue contains the following news of the State Society auxiliaries:

"As recorded in the March and April numbers of the Journal, plans for the organization of a Woman's Auxiliary to the Medical Society of New Jersey are developing rapidly and satisfactorily. At the present moment thirteen counties have organized and five others have engaged to consider the matter during the month of May; the remaining three may come into line before the June session of the State Society, at which time an amalgamation of the county branches into a state auxiliary is scheduled to take place.

In view of the fact that the American Medical Association will be meeting at Washington in May, and the Woman's Auxiliary to the National Association will hold its annual convention at the same place and time, and because we desire to have New Jersey represented at the convention, it became necessary to make special arrangement for selection of delegates from the state. Accordingly, anticipating the actual formation of a state auxiliary when county delegates shall gather in convention in June, the President of the Medical Society of New Jersey, Dr. James S. Green, at the request of the Organization Committee, decreed the formation of a skeletal organization and appointed the following temporary officers to serve until the state auxiliary shall have become formally organized; President, Mrs. A. Haines Lippincott, of Camden; First Vice-President, Mrs. Walt Conaway, Atlantic City; Second Vice-President, Mrs. E. R. Mulford, Burlington; Recording Secretary, Mrs. A. L. Stillwell, Somerville, and Treasurer, Mrs. James Hunter, Jr., Westville.

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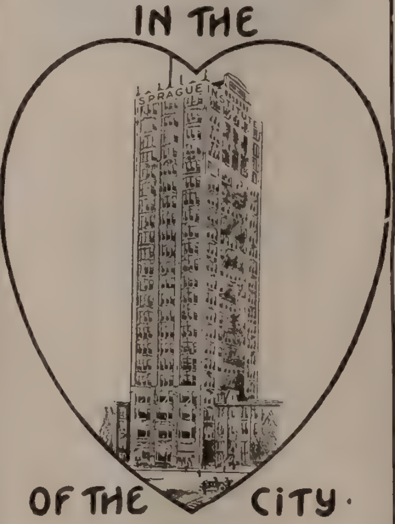

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For proper irrigation we must bear in mind the wise comment of J. P. Thornley, M.D. (in the *Medical Times*, July, 1924): "Like everything else, this simple little operation may be well done or poorly done and, except by accident, it is not one that any fool can do well. This the patient will appreciate more than the surgeon."

The Apparatus as employed in the FISHER METHOD of COLON IRRIGATION is fully described in our booklet, **sent** on request. See ad page xxvi.—Adv.

THE WOMAN'S AUXILIARY OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA

The Atlantic Medical Journal, the organ of the Medical Society of the State of Pennsylvania, contained news of the Women's auxiliaries of five counties:

From Beaver County:

After a delightful luncheon and the regular business, the meeting was continued with reports from the chairmen of committees.

The Hygeia campaign is being carried on most successfully, with a total of eighty-three subscriptions reported. We hope a few more months of work will add substantially to this number.

The chairman of Public Health reported the splendid success of the campaign for the immunization against diphtheria. Beaver County is among the foremost in the State in the percentage of immunizations which were carried out.

Five new names added to our membership was the report from the Membership chairman, increasing our total enrollment to fifty-six.

After a general discussion it was decided to hold a card party to reimburse our treasury. This was referred to the proper committees.

The Reverend Doctor Bostick, speaker of the day, then gave a very interesting book review of Channing Pollock's "Enemies," after which the meeting adjourned.

From Greene County:

After a short business meeting, Mrs. S. T. Williams, chairman of the entertainment committee, presented a program of musical numbers — violin and piano—given by Misses Louise Scott and Bess Moredock. Interesting selections were read by several of the members. Mrs. W. M. Parry gave a report on auxiliary meetings which she had attended in the States of West Virginia and Tennessee. Refreshments were served and a social hour enjoyed.

From Montgomery County:

Dr. A. C. Morgan, president-elect of the State Society, gave a very instructive talk on the work we, the doctors' wives, could do as Auxiliary members.

Dr. George A. Knowles, chairman of the State Society Legislative Committee, also gave a short talk on legislative matters.

When the Auxiliary was organized in 1924 it was decided to hold only three or four meetings a year, but the enthusiasm has so grown that we find holding the meetings every other month does not seem too often.

At the close of the meetings, refreshments were served to the doctors.

From Philadelphia County:

Dr. Frederick S. Baldi, President of the Philadelphia County Medical Society, addressed the meeting.

The Chairmen of the various standing committees made their annual reports, after which officers were elected for ensuing year.

During the past year the definite object of the Auxiliary was the purchase of and the payment for the beautiful Steinway piano which it presented to the Philadelphia County Medical Society. This has been fully accomplished, and the Auxiliary has also purchased some very attractive china and silver for its own use, and still there remains in the treasury a substantial sum of money.

From Westmoreland County:

The Westmoreland County reported on its election of officers and a bridge tournament.

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WHY DRY MILK

The production of clean milk is engaging the attention of health authorities to a greater extent than ever before. The heavy toll in lives which liquid milk has taken in the past and is still taking, notwithstanding many regulations and inspections by Health Departments, has called for efforts on the part of all milk producers to reduce this milk hazard.

In 1893 pasteurization was first attempted. Pasteurization has done much to eliminate milk-borne infections. However, in order to be safe, milk must be carefully pasteurized and health authorities everywhere are taking steps to see that the pasteurization is carefully carried out. This, of course, involves the human equation and there are records of many epidemics caused by milk supposed to have been pasteurized in which Pasteurization has been faultly.

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This pouch is recommended by great many leading Surgeons all ove the country, and recognized as a mo satisfactory appliance. See advertise ment on page xxiv.

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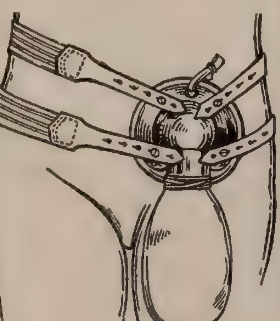

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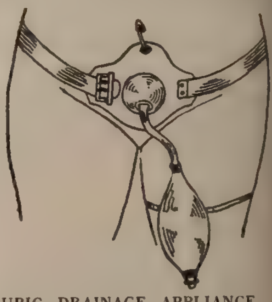

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NEW YORK STATE
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PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

VOL. 27, No. 12 NEW YORK, N. Y. JUNE 15, 1927

POLYCYSTIC KIDNEY WITH REPORT OF A CASE

By JOSEPH L. TENENBAUM, M.D.
Attending Urologist, Central Neurological Hospital, Welfare Island, New York.

POLYCYSTIC kidney is a congenital deformity consisting of cyst formation in the cortex. The origin of this condition is still a disputed question. The most plausible explanation is offered in the theory of embryonic malformation (lack of union between the tubules and the metanephrogenic anlage). It is often hereditary. Cystic degeneration may be fully developed in the foetus and present an obstacle in normal delivery. In most of the cases that come to our observation, the anomaly is latent for many years and starts to develop after middle age. The kidney grows larger and may attain enormous sizes. The bulk of the kidney consists of multilocular cysts, separated by layers of connective tissue. The cysts vary in size and number. Their content is liquid, viscid, albuminous or bloody. The cysts develop at the expense of the kidney substance. The latter is compressed, its capillaries are occluded and the parenchyma undergoes atrophy and cicatrization. The condition is essentially bilateral. The cysts do not have any direct communication with the lumen of the pelvis. Similar cysts have been observed in the liver.

Symptomatology: The symptoms accompanying this disease are not pathognomic. Many a diagnosis has been made by accident. The condition does not cause complaints unless the degeneration has progressed to a large degree. The symptoms can be divided into four groups:

A.—The largest group of cases exhibits diagnostic features which are commonly observed in chronic interstitial nephritis. The similarity of those two conditions is based on anatomical grounds, such as atrophy and scarring. Polyuria, low specific gravity and inability to concentrate the urine accompany every case of polycystic kidney. Albuminuria, a few hyalin casts, microscopic blood and a few pus cells may be present. Circulatory changes, such as high blood pressure, hypertrophy and dilatation of the heart muscle, are common occurrences. Bleeding from the nose, gums and lungs; edema, hydrothorax and ascites may result from cardiac failure. The main complaints, however, which alarm the patient, are preuremic symptoms, such as headaches, nausea, lack of appetite, vomiting, lassitude and the like. They may persist for years. As destruction of the kidney substance progresses and the excreting ability of the kidneys diminishes, there will be retention of nitrogen bodies in association with other signs of renal impairment. The preuremic stage gradually develops into uremia.

B.—Another set of symptoms is due to the growing size of the tumors. Backache, neuralgic pains in the loins with occasional renal colics, are often experienced. There are recurring symptoms of constipation and gastrointestinal disturbances which are partly due to direct pressure and partly to toxic absorption.

C.—From those are to be differentiated the symptoms which are growing out of complications, such as infection, abscess of the kidney, stone formation, etc. Either of them may be of such nature as to obscure the original picture. Pyelitis is a very frequent complication in polycystic kidney. Deformation of the pelvis and dislocation of the calices favor urinal stasis and infection.

D.—Hematuria is a frequent occurrence in polycystic kidneys. The amount of blood may vary from a few blood corpuscles in the urine to profuse hemorrhages. They contribute to the anemic condition of the patient. They are due to the same factors that are encountered in chronic nephritis. More alarming are profuse hematurias, some of which are caused by rupture of the cysts. The bleeding may be uncontrollable. A certain diagnostic feature of the hematurias in polycystic kidneys is the passage of masses of old blood, coffee-like, or even tarry in color. They are due mostly to bleeding occurring in the isolated sacs which subsequently rupture into the pelvis.

Diagnosis: The diagnosis of polycystic kidneys may offer several difficulties. In the early stages, recognition is almost impossible. The maladies most frequently mistaken for polycystic kidneys are hydronephrosis, neoplasm, echinococcus, perinephritic hematoma, solitary cyst, etc. Biliateral localization is quite pathognomic for polycystic kidneys. However, double-sided hydronephrosis, a neoplasm involving both kidneys or echinococcus may simulate polycystic kidneys. Palpation will often help to differentiate those conditions. A well developed polycystic kidney presents a large, elongated tumor with a hard, irregular, nodular surface moving on respiration. No fluctuation can be elicited.

Urological examination, consisting in catheterization of the ureters, functional tests and, especially, pyelography, is of great aid in arriving at a concrete diagnosis.

Catheterization will often reveal retention in one or both pelves, containing pale urine of low specific gravity. The amount of the residual varies. The discharge of urine is irregular and arhythmic (Ludowig). On retiring the catheter, one often discovers new areas not drained previously.

The functional test has a certain value as a comparative index of the function of each kidney, but more so as a test showing delayed secretion from either kidney. At times, the dye does not make its appearance up to 20 and 25 minutes in one or both sides.

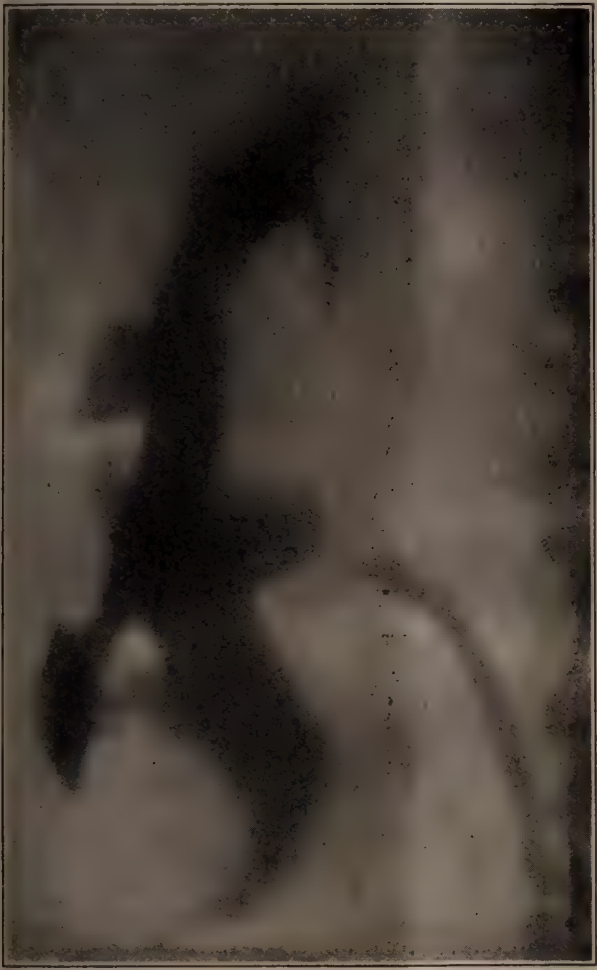
Pyelography gives the most interesting results. Owing to the size of the kidney, the pelvis and the calices are stretched out in their longitudinal aspect. Accordingly, the middle calyx is shortened or almost obliterated (dragon form). The upper and lower calices likewise vary in size and shape. Some present long, tapered projections (spider form), others are dilated with flattened-out or clubbed edges. Some of the calices may be compressed by cysts tending toward the pelvis with partial encroachment and filling defects simulating hypernephroma. However, the appearance of the pyelogram as a whole rarely fails to identify the condition.

Prognosis: Polycystic kidney is an incurable disease. The span of life from the time the diagnosis is made varies in each individual case, according to the progress of the disease. The statistics offer from one to twenty years of life. Blood chemistry and functional tests are barometers indicating the gathering of the storm. There are frequent remissions and exacerbations of symptoms. Intercurrent diseases, infections, excessive hematurias and cardiovascular failure, may accelerate the nearing end.

Therapy: The treatment is essentially symptomatic. The regime prescribed for the patient does not differ from that in chronic nephritis. It is to be borne in mind that the patient is a cardiac as well as a "nephritic" and that from the inter-relation of the circulatory and secretory systems depends his life and comfort. Accordingly, our medication will have to conform to both conditions. Thus, while limitation of purins, salt and spices is an accepted dietary rule, at the same time, one must be guarded against overstepping certain limits. The possibility of protein starvation and weakening of the heart muscle is one of the drawbacks of too restricted a regime. Forced fluids, while necessary for dilution of toxic substances and encouraging kidney secretion, have their limitations in cases of excessive hypertonia. The gastrointestinal tract, which bears the brunt of elimination, should not be neglected. Elimination through the skin should be encouraged. Another important point to remember is the fact, that while the diminished reserve power of the kidneys may suffice under ordinary circumstances, its insufficiency and unstable equilibrium may manifest themselves as soon as living conditions are being suddenly or gradually disturbed. The general condition of the patient, his ability to go about his work or to undergo any undue strain, should be tested in each individual case. In other words, the old truism to treat the patient, not only the disease, has its full significance in cases of polycystic kidneys.

As poor as the results of medical treatment may be, surgery has much less to offer. The condition does not lend itself to radical surgery. Nevertheless, one may be prompted to proceed with a nephrectomy on account of certain dangerous complications like pyonephrosis, tuberculosis, uncontrollable hematuria and the like. The fate of the patient depends, of course, on the function of the other kidney. As the degenerative process in the other kidney is not halted by nephrectomy, the latter offers only symptomatic relief. The mortality is as high as 30 per cent. Decapsulation and nephropexy advocated by some authors are technically difficult and offer scant relief. Nephrotomy has been performed with the same prospects. The best that can be done for those cases which are in need of immediate relief is incision or resection of the cysts. The use of the cautery (ignipuncture) is the method of choice. However, as many of the cysts lie deep in the kidney substance and cannot be reached by the operator, this procedure, while not as dangerous as the previously reported, is, nevertheless, far from being a radical cure. The following case is reported as an illustration.

Report of the Case: Mr. I. F., 50 years of age, married, father of three healthy children, was referred by Dr. S. Nagel on November 2nd, 1926, for urological examination. His hereditary history is of no special interest. His brothers and sisters are living and none of them has any urinary complaint. The patient had no venereal disease. He passed a healthy childhood and adolescence. He consumed no alcohol and was a moderate smoker. Fifteen years ago, the patient had renal colics for eight days, following which he passed two small stones in the urine. Since then, he had nothing to complain of, except that he was told that he has high blood pressure, which went up at one time to 250 systolic. Two months previous to the examination, the patient passed brown, coffee-like urine. After two weeks, the urine cleared up. He had repeated bleeding from the nose and itching of the skin. His present symptoms started a week ago with headaches, dizziness, lack of appetite and constipation, which was not relieved by enemas. He had frequent vomiting spells. He had fullness in the abdomen and was advised to see a gastro-enterologist. He had no blood in the urine lately and no urinary complaints, except some frequency during the last few nights, which he attributed to drinking of much water.



A. Pyelogram. Right Polycystic Kidney

Physical Examination: The patient is well built and well nourished, with a sallow, yellowish tinge of the skin and anemic mucous membranes. His lungs were negative. His heart was found markedly enlarged to the left. The heart sounds were clear with the second aortic accentuated. His blood pressure was 180 systolic and 105 diastolic. The abdomen was distended. In the left and right hypochondrium, two tumors were palpated, reaching down to the umbilicus. The tumors were elastic, hard, with no sign of fluctuation. The right mass seemed somewhat larger than the left. Examination per rectum proved negative.

B. Pyelogram. Left Polycystic Kidney

Urological examination revealed a small meatus of the urethra. On cystoscopy, the bladder was found normal. Both ureteral orifices were located and a catheter inserted into each ureter. Both kidneys were draining at a frequent and irregular rate. On aspiration, several small syringes of pelvic residual were obtained. The specimens contained a large number of pus cells. The culture proved negative for organisms. A functional test performed with indigo-carmine injected intravenously gave a faint greenish-blue return from the left kidney in 20 minutes and none from the right side up to 25 minutes. Two pyelograms were taken at different intervals.

The right pyelogram shows the typical dragonform of the pelvis and calices stretching out between the brim of the pelvic bone up to the eleventh rib. The left pyelogram gives evidence of a shorter and wider pelvis and middle calyx, with better developed upper calices. A comparison between the two pyelograms suggests more kidney destruction in the right than in the left side.

A blood chemistry performed on November 14th, 1926, gave the following results: Urea—120 mg., Creatinine—4 mg., Sugar—73 mg., and Uric Acid—10 mg., per 100 c. c. of blood.

Under suitable medical treatment, proper diet and rest, the patient's condition has been gradually improving, so much so that he was able to return to his work (designing). Pelvic lavages with silver nitrate solutions (½ per cent.) have been instituted in order to clear up the pyelitic infection. The patient was lost track of later.

Summary: Polycystic kidney is one of the most interesting maladies. Not unlike the neoplasms, cystic degeneration while based on congenital malformation, makes its appearance either in the very young or after middle age. Its development cannot be traced back to any particular factor. It is a progressing disease and results in tumor-like formation. As far as the prognosis is concerned, it shares the fate of malignancy. It does not metastasize, however. It is primarily a degenerative process with secondary atrophy and connective tissue proliferation, while neoplasm is primarily a process of neoplastic proliferation with secondary degeneration. The treatment is essentially symptomatic.

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BACKACHE—FROM THE ORTHOPEDIC STANDPOINT*

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OUTLINE

1. Introduction.
2. Normal Physiology of the Spine with Reference to the Use of the Body in Proper Posture.
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            - (iii) Flat Feet
            - (iv) The Congenital Visceroptotic or Carniverous Type
            - (v) The Broad Backed or Herbiverous Type
        - (c) Sacralization of the Fifth Lumbar.
    - D. Those Due to Neoplasms.
        - (a) Sarcoma
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    - E. Backache Due to Uterine, Pelvic and Abdominal Causes.
4. General Outline of Examination.
5. Conclusions.
6. Bibliography.

1. Introduction

OF all the afflictions to which the patient is exposed, the one which most taxes the skill of the specialist is "backache." The gynecologist, genito-urinary surgeon, internal medical man and the neurologist consider its diagnosis and differentiation a considerable problem. The orthopedic surgeon, who sees most of the cases, is also often at a loss for the proper diagnosis and for the treatment that will best hasten recovery.

Backache from all causes is very frequent in civil practice. The "lame back" constitutes more than 20 per cent of all the industrial accident cases[1], according to the statistics of Osgood. Where litigation is pending, whether in industrial or other accidents or if the patient is a neurasthenic, the subjective symptoms of backache are likely to be markedly exaggerated. The symptom complex is obscure and will tax the skill and patience of the most experienced surgeon.

The situation is further complicated by the fact that the osteopaths and the chiropractors make their strongest bid in promising sure and rapid cures of this malady.

With all these difficulties in mind, the dilemma of the general practitioner can be readily appreciated. He is usually the first one to be called on and he has to decide to what specialty it belongs and which specialist is correct in the diagnosis. This paper is intended to present to the general practitioner the recent findings and accepted methods in diagnosis, differentiation and general mode of treatment.

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2. NORMAL PHYSIOLOGY OF THE SPINE WITH REFERENCE TO THE USE OF THE BODY IN PROPER POSTURE

Goldthwaite[2] and his school at Boston have done meritorious work on the normal spine. I need not go into detail but will merely mention that they have demonstrated the great influence which the proper posture of the spine has on general health Goldthwaite[2] outlined the different types of the spines:

(1) The normal human type with its four curves: (a) the cervical, with the convexity anteriorly; (b) the dorsal, convexity backward; (c) the lumbar, curved forward, and (d) sacral, convexity backward. But all these curves are only slight. The exaggeration of any of these curves causes trouble.

(2) The second type, which is abnormal, is the congenital visceroptotic — slender or carniverous type.

(3) The broad backed or herbivorous.

(4) The mixed human type.

This classification is made use of in industries where many people are employed; a certain type of individual is selected for certain work.

The human spine is not an extremely flexible structure by itself. Motion takes place mainly at the cervical and lumbar regions. Motions permitted are flexion, hyperextension and side bending rotation. It must be remembered that the intervertebral discs by permitting compression give freedom to the motions. The discs atrophy with age hence the bowed back of old age. The joints of the spine are very many and complicated. There are 134 joints between the base of the occiput and the sacrum, demonstrating how even small injuries to the spinal column are apt to cause severe disability.

The Boston school has emphasized that habits of posture affect the physiology of the body, especially the digestive, respiratory and circulatory systems. (We breathe better when we stand erect. The typist makes less mistakes when she has a good chair. The seamstress or factory worker has no backache and turns out more work when the chair and the working table are properly arranged.) In preventive medicine the physical education in proper posture should play a very important role.

The rules and principles for acquiring and maintaining the proper mechanics of the body in its anatomic correct position are few and should be summarized by every physician. Thomas and Goldthwaite[3] suggest these short orders: "Stand tall, head up, chin in, chest high, abdomen flat, weight on balls of feet. Never over-correct the chest which tends to carry the shoulders too far back and to increase the lumbar curve causing the body weight to fall on the heels."

Radiograms of the spine show that even in normal individuals there are many anomalies. There are extra vertebrae, ribs or abnormally large transverse processes. (O'Reily[4], Moore[5].) These abnormalities may never give trouble and are discovered only accidently. Hence a diagnosis of a physical abnormality should not be made unless it can be otherwise proven to be responsible for the condition. Radiograph in antero-posterior and lateral views are essential in diagnosis.

3. CAUSES OF BACKACHE

The causes can generally be divided into five groups:

A. Those due to arthritis of the spine.

B. Those which are traumatic in origin.

C. Those due to attitudinal or mechanical strain—static backache.

D. Those due to neoplasms.

E. Those due to uterine, pelvic and abdominal causes.

A. I. ARTHRITIS OF THE SPINE

Arthritis of the spine occurs as primary arthritis of the spine (Spondylitis Deformans) or in connection with general arthritis (Hypertrophic arthritis).

(a) The form called Spondylitis Deformans or Spondylose Rhizomelique or "Poker Spine" is a chronic and progressive disease of the spine which terminates in ankylosis and deformity. It may be localized at first but tends to spread until the whole spine is involved. It is an ossifying periostitis which binds the vertebrae together. The vertebral discs gradually disappear and osteophytic outgrowths appear along the margins of the bodies of the vertebrae.

Clinical Feature of Spondylitis Deformans.—There is generally a history of an acute onset of pain and stiffness in the back sometimes radiating to the hips. Gradually the spine becomes stiffer and the figure more stooped.

Treatment.—Remove the cause, if possible. Keep the spine in a good posture so that if ankylosis does occur, it should leave the patient with a good straight spine. In the acute stage, a corset and then a brace should be used. Later on hot packs, baking, heliotherapy and massage may be instituted. Patient must be instructed in the proper exercises for developing the spinal muscles.

(b) In cases of chronic polyarthritis the spine is usually free but with hypertrophic arthritis (osteo-arthritis) the spine is a part of the general disease. The diagnosis is easy since many other joints are involved and the treatment is the same as in general arthritis.

II. Specific Arthritis

(*a*) *Tuberculosis of Spine* (*Pott's Disease*).—The pathology and diagnosis are well established. The disease is more common in children than in adults. The symptoms are pain, weakness and muscular rigidity with limitation of motion in the spine. Later on a "knuckle" appears. Tenderness is not a symptom. It is usually absent. Symmetrical paralysis and abscess formation are really complications and not symptoms. The radiographic findings are characteristic viz. a prevertebral spindle-shaped shadow around the affected area in the entero-postorior view. There is bony destruction from the outset. Methods of treatment are well established; immobilization in plaster or braces, heliotherapy, operation by Hibbs or Albee methods.

(b) *Typhoid Spine.*—The column is attacked by an infective process during convalescence. The bodies of the vertebrae, the intervertebral discs and the spinal ligaments are all involved. Widal test is positive. The condition does not often go to suppuration. The treatment is by prolonged rest and immobilization.

(c) *Acute Osteomyelitis.*—This may occur in accute infectious diseases. The bodies or the arch of the vertebrae may be affected. There is a great deal of local pain and tenderness and inability to move the spine. Sometimes a deep seated abscess makes its way to the surface. Treatment consists of applying extension to the spine and opening the local abscess.

(d) *Syphilis of the Spine.*—Usually found in the gummatous type. It is often very difficult to differentiate from tuberculosis, the most notable contrasts being less pain on motion, muscle spasm not striking especially in the uninvolved areas of the spine. Wassermann and the history help. Improvement after anti-syphilitic treatment is common. A rapidly developing painless deformity of the spine should always excite our suspicions of a Charcot arthropathy and lead to further search for symptoms that will substantiate the diagnosis.

B. Traumatic Backache

Traumatic backache is divided into (a) fractures, (b) sprains, (c) industrial lame back, (d) strains.

(a) *Fractures.*—Serious types of fractures with the history of a severe accident and its concurring symptoms of a general fracture are not included in this series. The history with the marked disability and the definite radiograms will establish the diagnosis. However, one meets slight grades of unrecognized fractures which result in symptoms resembling arthritis. This is particularly true when there is a fracture of laminae, transverse or spinous processes. It is a proper and important rule to have a radiograph taken of every injured spine no matter how trivial the injury is. The radiograph should be taken in two views—antero-posterior and lateral.

The treatment in general is recumbency usually on a Bradford frame. Then the spine is fixed by a corset or a back brace to be followed later on by massage and exercises.

(b) *Sprains of the Spine.*—They are common in cervical and lumbar regions. Either the muscles or ligaments may be affected. When the muscles are affected the symptoms are intensified on the occassions when the muscles or group of muscles are put into action. The onset is usually sudden following a blow. Relieved by rest.

In injuries to the lumbar region there may be discomfort on coughing or sneezing or while riding over rough roads. Pain often radiates down the buttocks, thighs or even calves. Radiograms are negative. Hard to differentiate between muscle and ligamentous injury but differentiation is not essential.

Treatment.—Applications of adhesive plaster strappings which should be prescribed for only three weeks, then gentle massage used. In cases of severe injury some support may be necessary.

Sir Robert Jones[6] suggests that optimism, explanation and re-education are the essential factors to successful treatment in this group of cases.

(c) *The Industrial Lame Back.*—There are cases of back pain arising in persons who habitually hold and use their bodies in positions of mechanical disadvantage. This is true irrespective of the nature of the labor. Osgood[1] says: "In hard working men, over forty, it is possible to discover the presence in the spine and other joints of what has been termed hypertrophic or osteo or degenerative arthritis." These may be revealed in the radiograms. The subjective symptoms of the early lesions of this type of arthritis may be nil, until some injury, even very slight, increases the local activity of the process. The symptoms are out of proportion to the nature of injury. The radiograms are usually the same.

Treatment.—Rest. Proper posture. May be necessary to apply a plaster jacket for a short time, then physiotherapy.

Preventive treatment is important. Osgood[1] says: "Although it has been sometimes opposed by organized labor, we believe a pre-employment physical examination by a physician who knows not only his medicine, but his mechanics would greatly lessen the number of back cases in industry. The labor unions should look upon this, not as an affront, but as an opportunity."

(d) *Lumbo-Sacral and Sacro-Iliac Strains.*—These constitute the most common conditions of backache brought to the family physician. This used to be called lumbago. The cause is usually a sudden lifting of a heavy load. The pain is either dull or acute, localized in an indefinite way over the lower spine and hip radiating to one side down to the knee and leg. The pain is usually asymmetrical; sciatica is a frequent symptom. There is a great deal of pain in turning from side to side in bed. The spine often shows a deflection or tilt to one side.

For the orthopedic surgeon it is necessary to differentiate between the two but for the general practitioner it is sufficient to consider them as one.

Smith-Peterson[7] has ably given the differentiation between these lesions as follows:

DIFFERENTIATION BETWEEN LUMBO-SACRAL AND SACRO-ILIAC

	Lumbo-Sacral	*Sacro-Iliac*
1. History.	More comfortable on either side or back.	Cannot lie for any length of time on the side complained of.
2. Distribution of pain.	Projected or referred along the distribution of 5th lumbar and first sacral nerves; i.e., dorsum of foot, first toe, mesial aspect of the sole and heel and antero-lateral and posterior aspects of the lower leg, dorsum of the foot, 2nd, 3rd, 4th, and 5th toes and laterial aspect of the sole of the foot.	Pain referred along the fourth and fifth lumbar and first and second sacral nerves; i.e., posterior aspect of thigh as well as any part of the lower leg, usually antero-lateral and posterior aspect of the lower leg and lateral aspect of the ankle.
3. Examinations.		
A. Motions standing. a. Flexion.	Lumbo sacral region rigid. Forward bending takes place at the hips and upper lumbar spine and dorsal regions.	Bends lumbar spine first then tilts the pelvis until the hamstrings become taut, then patient either stops or flexes his knee on the affected side.
b. Extension.	Lumbar spine kept rigid and bends knees.	Lumbar spine moves and pelvis tilts backward.
c. Lateral flexion or side bending	No motion in lumbo sacral junction—Only motion in the dorsal and upper lumbar spine. Freer on the side away from the affected.	(1) In acute inflammatory cases motion is more limited toward the side affected. (2) In sacro-iliac strain the reverse is true.
B. Motions sitting.	Flexion is limited.	Flexion is free.
C. Motions lying. a. Passive flexion (flexing knee and hip).	Pain present. The lumbar spine cannot be flexed.	Motion free except in severe cases.
4. Special tests. a. Straight leg raising of affected side. (One hand should be under the patient's lower spine.)	Pain does not come on till after the lumbar spine begins to move.	Pain brought on before the lumbar spine begins to move.
b. Straight leg raising of unaffected side.	Pain is at the same level when the other leg is raised.	It is possible to bring the opposite leg to a higher level.
c. Compression of the crests and pressure over the pubes. (Patient lies on his unaffected side. Examiner then puts his forearm on the affected side and leans on it.)	Pain is absent.	Pain is present.

The treatment of lumbo-sacral or sacro-iliac strain is rest and support; later on heat and massage followed by education of the muscles to flatten the lumbar spine.

The rest is obtained by the application of adhesive strappings applied across the lower part of the back so as to include both iliac crests. The strips are three inches wide overlapping each other about one inch. It is best to include a piece of felt over the sacrum under the adhesive plaster. The strapping should extend to the lower ribs.

This strapping is changed every five days for a few weeks then a brace is applied when baking and massage can be instituted.

(c) ATTITUDINAL STRAIN—STATIC BACKACHE

—Jones and Lovett[8] introduced this term to define disturbances caused by the erroneous deflection of body weight causing strain to spinal muscles, joints and ligaments. The deviation may be (a) in the lateral direction or (b) in the anteroposterior direction.

(a) *Erroneous Deflection of Body Weight in the Lateral Direction.*

(i) Slight deviation may give pain due to strain of the muscles. Real scoliosis (lateral curvature) sometimes produces pain. It is, however, not common. Scoliosis is easily diagnosed but treatment is complicated and prolonged and should be referred to an orthopedic surgeon.

(ii) Inequality in length of the lower extremity may cause backache. A difference of ⅛ to ¾ inch exists in many normal people without their knowledge. In many people, on the contrary, a very slight difference due to accident or disease will give a great deal of pain in the back.

The treatment is of course to equalize the limbs.

(b) *Erroneous Deflection of Body in Antero-Posterior Direction.*

We must remember that in the upright position the body is balanced against an anterior load. Any cause which increases the anterior load, necessitates greater muscular effort in maintaining the upright position and favors occurrence of this type of backache. Such causes are (1) large abdomen, (2) round shoulders, (3) flat feet which cause an inclintion of the pelvis thus producing back strain and discomfort.

In general this form of backache affects the lower spine and occurs mainly during or immediately after standing, walking or sitting.

Cochrane[9], a disciple of Goldthwaite, emphasizes that the two well marked variations from the normal spine are also predisposed to this form of backache.

(1) The congenital visceroptotic, narrow backed, long waisted, slender type of individual and (2) the thick set, broad-backed, heavy type. In the slender type of individual, relaxation of sacro-iliac joints are likely to be met with. In the heavy the lumbo sacral strain is most common.

(c) *Sacralization of the Fifth Lumbar Vertebrae.*

Studies by O'Reily[4], Moore[5] and others have proven that an abnormality in the transverse process of the fifth lumbar is very common. It predisposes to painful conditions and abnormal postures in the lumbo-sacral region. In some cases it is larger and much broader than normal. Sometimes instead of being bluntly pointed it is expanded or fan shaped. In these instances it may come in contact with the base of the sacrum especially during lateral flexion of spine. Irritation is set up; gradually a bursa is formed between the last lumbar and sacrum. If the condition is unilateral, the body is listed to the other side. Sometimes the transverse process fuses with the ilium or sacrum and is called sacralization of the fifth lumbar. These are often associated with strain and osteo-arthritic changes in the lumbo-sacral and sacro-iliac joints. The osteo-arthritic changes reduce the foramen through which the anterior division of the fifth lumbar nerve emerges. When it is pressed upon, referred pain to the knee and leg is produced.

Subluxation or relaxation of sacro-iliac joints is not as common as it was formerly believed. Outside of pregnancy or after very severe or crushing trauma its existence is not well established.

Diagnosis.—Sir Robert Jones[8] emphasizes and we agree that "there is no more difficult problem in diagnosis than the recognition of static backache and its differentiation from other types."

Treatment of static backache is general and local. The patients are usually below par, hence the general condition should be built up.

Local Treatments.—Strapping, then a sacro-iliac compressor and exercises. Very large transverse processes should be removed. If errors in the lower limbs exist, they should be corrected. Baking with electric light or alpine lamp is helpful but it can not supplant fixation.

Exercises.—(1) Spinal motion—flexion, extension, lateral bending and rotation. (2) Developing and strengthening of the muscles of abdomen, lateral abdominal walls (flanks) and back.

Radiography of the Sacro-Iliac Joints. — Osgood[10] states boldly and acutely: "The separation of sacro-iliac and pubis may often be within normal limits and has nothing to do with the symptoms. We may know that the displacements demonstrated (especially in medico legal cases) are often due to the asymmetry of the X-ray tube and not to the asymmetry of the patient. It depends therefore for whom the physician testifies."

To determine the cause of separation of sacro-iliac and pubis, plates should be taken at various angles, taking into consideration anomalities before more definite information can be obtained. A radiograph is of value in ruling out injury or disease of bone, determining the extent of arthritic changes, if present, and detecting congenital anomalities.

D. Backache Due to Neoplasm

Sarcoma, osteoma and metastasis are found. Hard to diagnose them. One has to depend mainly on the general symptoms. It is common in spinal cord tumors and malignant diseases of the bones. We can alleviate the symptoms only slightly by support.

E. Backache Due to Uterine, Pelvic and Abdominal Conditions

Uterine trouble is more often overestimated than underestimated. However in women backache of pelvic origin is often indistinguishable from static backache and the gynecologist should be consulted. In case of young girls it is safer to assume the cause to be static.

4. General Outline of Examination

Osgood and Morrison[1] advise the following routine in examining a patient with backache:

1. Strip the patient and note the general body

form and the muscular development and tone.

2. Patient standing.
   a. General statics, body posture in relation to the centre of gravity, abdominal contour, weight bearing lines of the feet.
   b. Note exaggeration of the normal curves of the spine, abnormal curves, deviations.
   c. Motions of the spine, active and passive.
   d. Muscle spasm, general and local.
   e. Chest expansion.
3. Patient sitting.
   a. Motions of the spine, active and passive. (In lumbo-sacral cases, forward flexion will be still limited; in sacro-iliac it will be free because of support of the pelvis and relaxation of the hamstrings.)
   b. Reflexes, disturbances of sensation and motion in the limbs.
   c. Condition of the circulation; blood pressure, heart, lungs, tonsils, teeth, etc.
4. Patient in dorsal recumbency.
   a. Measurements of the length of the lower limbs and the comparative size of the calves and thighs.
   b. Contours of all joints by inspection and palpation.
   c. Motions of all joints, active and passive.
   d. Flexion of thighs on pelvis with knees bent. (In lumbo-sacral lesions, this may be expected to be painful; in sacro-iliac, not painful because the pelvis moves more as a whole.)
   e. Flexion of the thighs with the knees straight, hand beneath lumbar spine to detect relation between expression of pain and movement spine. (Helpful in discriminating between low spinal and sacro-iliac lesions.)
   f. Ability to assume and symptoms caused by the opisthotonos position. (Agnew's sign.)
   g. Abdominal palpation. Special reference to faecal masses in colon.
   h. Points of tenderness, especially the pubic symphosis.
5. Patient in lateral recumbency.
   a. Symptoms caused by lateral compression of crests. Care taken to have patient lie on side of lesion and to sustain the pressure on the crests. If painful, suggests sacro-iliac lesion.
6. Patient in ventral recumbency.
   a. Contours of spine, pelvis and hips.
   b. General and local muscle spasm.
   c. Points of tenderness in back and along nerve trunks. Note especially coccygeal, sacral, sacro-iliac, posterior-superior spines, ilio lumbar ligaments, lumbo-sacral joints and spinous and transverse process tenderness.
   d. Symptoms and signs elicited by extreme flexion of the knees.
   e. Symptoms and signs elicited by hyperextension of the thighs.
   f. Anatomic relationships of bony prominences.
   g. Rectal and prostatic examination.
7. In what position in recumbency is patient most comfortable? (In sacro-iliac lesions, for example, the patient is usually uncomfortable if he lies long on the side of the lesion. A lumbo-sacral case is usually comfortable lying on either side or on the back.)
8. Roentgenological examination.
   a. Antero posterior and lateral views of spine well above and below suspected region.
   b. Stereoscopic views of the lumbo-scaral and sacro-iliac regions.
9. Such laboratory examinations as are considered likely in the individual case to yield important data. Urine, blood, spinal fluid, Wassermann, etc.

5. CONCLUSIONS

1. Backache requires the most careful examination and differentiation. No hasty diagnosis should be made.

2. There is no more difficult problem in diagnosis than the recognition of static backache and its differentiation from other types.

3. The diagnosis of railroad spine, functional spine, relaxation of sacro-iliac, sciatica or lumbago should rarely be made.

4. Abnormalities in the vertebrae both in number and shape are found even in apparently normal individuals. These anomalies predispose to backache but are not the real cause.

5. Any injury of the spine should be treated as a fracture unless proven otherwise. Even slight and trivial traumata should be subjected to careful radiographs and study.

6. Radiography of the spine:—two views should be taken of every case—antero-posterior and lateral views, to rule out injury or disease of bone, determine the extent of arthritic changes if present and detect congenital anomalies. Separation of sacro-iliac and pubis cannot be definitely determined by the radiographic plates.

7. The rules and principles for acquiring

and maintaining the proper mechanics of the body in its anatomic correct position are few and should be memorized by every physician.

8. In spondylitis deformans and hypertrophic arthritis the spine should be immobilized in a plaster of Paris jacket. The source of infection should be sought and removed if possible.

9. Osteo-arthritic changes found at the lumbo-sacral and sacro-iliac joints reduce the foramen through which the anterior division of the fifth lumbar nerve emerges. When it is pressed upon, referred pain to the knee and leg is produced.

10. Tuberculosis of spine is easier to diagnose than the other forms of specific arthritis and the physician should be well versed in its main clinical features.

11. Fractures of spine should be treated with immobilization in plaster of Paris jackets or double plaster shells and Bradford frame. If cord complications are present it should be watched for a very long time to decide whether or not operation is necessary.

12. Sprain of spine should be treated by strapping, then massage and exercises.

13. Lumbo-sacral and sacro-iliac strains should be treated by adhesive plaster strappings then baking, massage and exercises followed by education of the muscles to flatten the lumbar spine.

14. In static backache the etiological factor should be corrected hence flat feet or inequality of feet should be remedied, the posture improved by proper exercises and temporary support if necessary.

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REGULATION OF MASSAGE BY NEW YORK CITY DEPARTMENT OF HEALTH

By S. DANA HUBBARD, M.D., NEW YORK, N. Y.

IN the early part of 1916, the attention of the authorities was called to violations of the Medical Practice Act and various irregularities relating to massage as it was being operated in the City of New York. These conditions brought about an ordinance (Code of Ordinances, Chapter 14, Article 1, Article 15) causing all persons practicing massage to be registered with the Department of Licenses annually, the fee for which was $3.00 for each operator and $10.00 per year for each massage institute; license being renewable on December 1st of each fiscal year. A later amendment required the presentation of certificates of training. We would therefore quote the Statute (Ordinance 171) which is as follows:

> "Schools of massage duly licensed under this ordinance shall be recorded in the office of the Commissioner of Licenses upon receipt of a certificate signed by the Commissioner of Health of the City of New York, certifying that, in his opinion, *the course of instruction in the school is adequate and the staff competent to give the necessary instructions in massage."*

Accordingly, applicants for massage licenses are referred by the Department of Licenses to the Department of Health for visæ of the credentials of these applicants. In the *Boston Medical and Surgical Journal* of December 9, 1926, volume 195, number 24, there is an interesting article that is very comprehensive relating to "Physiotherapy: Its Use by the General Practitioner," by James Warren Sever, M.D., F.A.C.S., wherein the subject of massage is very comprehensively and informingly treated from the medical point of view.

The Statute of the City of New York (Section 175, Definitions) states that, "A person who applies manual or mechanical massage or similar treatment to the human trunk or limbs shall be deemed to be within the terms of this ordinance a massage operator, but no person comprehended within the provisions of Section 219 of the Sanitary Code, entitled nurses, or Section 173 of the Public Health Law, relating to osteopathy, shall be deemed to be intended within the provisions of this ordinance."

By practical application of this Statute, officials have interpreted that barber shops and beauty parlors who limit their hand or mechanical manipulation to the face and head are exempted from the operation of this statute.

Establishments which have in their windows, exposed to public view, a sign "massage" have been informed either to secure an institute license or remove the misleading sign from public gaze which is violating this statute through such use.

With the recently amended Medical Practice Act of May, 1926, wherein there was included a physiotherapy clause, complications have arisen as to interpretation of the two acts. Of course, legally it is understood that the state act takes precedence and is superior to the local or Municipal Statute, but what constitutes "mechanical manipulation" and what constitutes "physiotherapy," in the use of certain devices — electrical vibrators, electrical heat lamps and similar appliances—has caused some confusion to the authorities in the regulation of masseurs.

For the information of the public, we would, therefore, attempt to interpret the massage ordinance in order that the public may understand the point of view of the Commissioner of Health in the operation of the Statute as required in the section relating to his supervision.

Manual manipulation, technically and scientifically applied, supplements the work of the physician. The use of the electrical vibrator, as is done in barber shops and beauty parlors frequently, would be, in our opinion, proper application of massage by a masseur.

WHAT CONSTITUTES MASSAGE?

It generally is recognized that massage has five definite, well recognized methods of application.

1. Stroking, effleurage.
2. Kneading, petrissage.
3. Friction, firm deep circular movements for breaking up adhesions.
4. Tapping, tapotement.
5. Vibration, which may be done by the finger tips or the palm of the hand, used as a hammer.

In our opinion, this is, as a rule, better performed by the use of an electrical vibrator either directly applied or through the hand of the operator, and this use would not violate the state act regarding Physiotherapy.

The principle purpose of massage is either muscle training or re-education of muscles. This may be performed through one of the following methods:

(a) Improving the circulation and through this the nutrition.

(b) Through exercise passively administered to maintain muscle tone, thereby preventing the degeneration of muscle fibre atrophy from disuse or in the case of adhesions in tendons or joints to aid in breaking adhesions and restoring thereby the function of the part.

(c) To strengthen weakened muscles whose nerve supply is unimpaired.

(d) To aid in co-ordinating nerve centers where a partial destruction has occurred. Here re-education by habit, acquired through massage, increases the strength of not only the whole muscle but of the limb.

In performing this function, with all muscle training, intelligent examination must be made to *diagnosticate indications,* because simply applying massage unintelligently to a limb and not to a specific group of muscles affected, will not make massage helpful, but, on the contrary, might do harm, through over exercising a weakened group of muscles in need of rest. If the wrong group of muscles are exercised and over-developed from such practice, deformity may be caused and the likelihood of causing deformity is great in zealous patients especially the young.

After determining what groups of muscles are to be developed, the type of exercise best suited to the muscle, the amount of exercise is very essential in this problem.

WHO SHOULD GIVE MASSAGE?

Good massage properly applied means adequate training and proper anatomical knowledge. These two requisites should always go together. One of the causes of failure of massage, as an aid in healing, has primarily been due to the failure to distinguish, between scientific massage properly applied and unskilled rubbing which merely requires human strength and dexterity.

Physicians, as a class, know practically nothing about massage, principally from the want of training.

A person properly trained in physical therapeutics and massage can give better treatment, get better results with less waste of time than can either physicians or untrained so-called rubbers or massage attendants.

No massage should be given in any case following an injury or fracture unless the instruction for such treatment is under the supervision and direction of a surgeon and then only in such doses and at such intervals as the doctor prescribes.

Manipulation of joints or parts following fractures or injuries should never be undertaken without express direction from the surgeon, otherwise harm may result and the patient made to suffer unnecessarily.

It is a good rule always to follow that when forcible passive motion causes pain, "Don't do it." The presence of pain and irritable joint following a sprain, fracture or injury, leads only to the aggravation in the symptoms. What such a part needs is rest, possibly fixation. The bad effects of forcible motion are seen best in cases of injuries of the elbow, especially in children.

It is hoped that we have made ourselves clear in regard to the dangers applying to massage not supervised and the use of massage by the untrained. Muscle atrophy is a real danger and must be combated and this can be successfuly done in the hands of the expertly trained masseur without the use of which technical results almost invariably will be disappointing and convalescence tediously prolonged.

Physicians are, therefore, earnestly requested in both hospital and private practice to watch the application of the position of massage in New York.

THE PRIVATE PRACTITIONER AND PREVENTIVE MEDICINE *

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MANY do not realize that it was during the eighteenth century that the medical profession began to show an interest in preventive medicine. Some of the achievements at that time which, mind you, were not initiated by governmental boards but by individual physicians, were the reformation of obstetric practice, the study of infant mortality, the establishment of dispensaries, hospitals and medical schools, industrial welfare work, notification and disinfection as a means of controlling communicable diseases and the systematic study of epidemiology.

It took considerable effort on the part of William Hunter to get the medical profession to recognize obstetrics as a respectable medical procedure, and it was many years before a physician who did obstetric work was considered eligible for membership in a medical society. Hunter practiced preventive medicine when he preached natural delivery instead of forceps. It was he who used to exhibit his forceps covered with rust to indicate that he never used them. Oliver Wendell Holmes, the great poet, essayist and medical teacher, was one of our pioneer epidemiologists when he discovered the "contagiousness of child-bed fever." His essay on that subject is one that every physician should read. Holmes was not a public health official. He was a practicing physician. Credé was an obstetrician, yet his method of preventing ophthalmia of the new-born is one of the most valuable preventive measures practiced.

I merely mention these historic incidents to show that preventive medicine is not the duty of some governmental agency only. All of you, consciously or unconsciously, are practicing preventive medicine every day of your lives. When you put on rubber gloves for delivery you are possibly saving a life; when you allow nature to take its course and avoid, if possible, a forceps delivery, you are not only avoiding a possibility of infection, but you are lessening the chances of tear with subsequent gynecological pathology and perhaps chronic invalidism on the part of the mother. When you direct the pregnant woman as to her diet, you are preventing the illness of the child to-be; when you prescribe cod liver oil and orange juice for the infant, you are practicing preventive medicine by insuring the child against rickets and scurvy; when you administer salvarsan to the case of early syphilis, you are not only practicing curative medicine, but you are preventing the subsequent infection of others from that source. I could go on indefinitely calling your attention to instances of preventive medicine in your practices, but I shall add only one more—when you treat intelligently one of the acute infectious diseases such as diphtheria, scarlet fever or acute rheumatic fever (if that be included in such a group) you are practicing preventive medicine as well in that you are lessening the chance of subsequent cardiac involvement.

Public health is merely the aggregate state of health of each individual in the community. Public health then should not be regarded by physicians as a somewhat uninteresting function of a government bureau or department; the medical profession in their own practice should adopt all methods directly intended to prevent disease.

The functions of the physician in preventive medicine may be divided for purposes of discussion into three main groups. Let us consider first the diseases dependent on sanitary conditions. You may think that here is a group of diseases the control of which is essentially and solely the function of govern-

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* Address to Staff of Nassau Hospital, April 14, 1927.

mental agency. True, yet the medical profession has certain responsibilities. You, by virtue of your profession and education are or should be leaders in your respective communities; especially is this so in the smaller municipality. As members of the medical profession I am sure none of you would desire to revert to the days when you were treating six to ten cases of typhoid fever every day during the late summer and fall; nor would you want to go back to the time when every summer you signed certificate after certificate registering the death of babies from diarrhea. Improvement in these conditions has been brought about by better water and milk supplies, due in no small measure to the activities of physicians. Here in parts of this country today sanitation is being grossly neglected and it is the duty of the medical profession to lead the way to better conditions. In his daily contact with patients the physician has a better opportunity for instructing the general public on such matters than any other individual.

The second function of the physician in disease prevention has to do with infectious diseases per se. Here you have several duties laid down by statute and regulation. The disease must be reported promptly to the health authorities in order that proper precautions to prevent further spread of the disease may be taken. There is another reason for prompt reporting—that immediate steps may be taken to find the original source of the disease. Here I feel there is an opening for better work by the medical profession as a whole. The sooner an epidemiological study can be started, the better are the chances of bringing it to a successful conclusion. Briefly, to get at the source of an outbreak of a communicable disease, it is necessary to find something in common to a group of cases of that disease. If there are delays in reporting the individual cases, it means that the source of infection is at work for so much longer a time. The tendency of physicians is to wait until a diagnosis is firmly established before the case is reported —legally of course this procedure cannot be questioned—but if cases of epidemic disease were reported when the physician is reasonably sure of his ground, some additional cases could unquestionably be prevented.

The physician has another duty with reference to communicable disease which, I am sorry to say, is not infrequently neglected. I refer to the examination of family contacts. I suppose this is rarely overlooked in diphtheria or scarlet fever; but how many physicians advise such an examination when they find a case of pulmonary tuberculosis?

In this connection also should be mentioned the duty of the physician attending a child suffering with either measles or whooping cough when there are children under three in the household. It may be advisable to administer to such young children convalescent measles serum or pertussis vaccine. In any event, the physician should instruct the parents as to the need for careful observation of the young children and the necessity of putting them to bed immediately upon the appearance of the earliest manifestation of the disease.

Still another function of the family physician is to teach his patients to isolate every sick child in the family until it is definitely proven that the illness is not of an infectious nature. If all did this, there would be far fewer secondary family infections.

Lastly in considering the group of infectious diseases we come to the administration of specific prophylactic measures. No physician, qualified to be such, today questions the efficacy of vaccination to protect against smallpox and typhoid fever. None will advise against it if the patient asks for it; yet how few there are who take the aggressive, so to speak, and urge their patients "to come around to the office and get it." Last year, when smallpox appeared in this county, I was amazed to find the large number of unvaccinated children. Of course, you may rightly say this is a parental responsibility. I do not question that, but I do feel that the physicians should take the opportunity when visiting a family for any cause to urge vaccination. What I have just said also holds good for toxin-antitoxin to prevent diphtheria. The health authorities can hold campaign after campaign, clinic after clinic; but in the final analysis the extent of immunization to diphtheria will depend on the activity of the family doctor in urging it. I believe that it is a proper procedure for a physician to write to the mother of a child, when that child is six months old, and advise her to have the child immunized.

The third function of the physician in preventive medicine includes measures which he not infrequently overlooks. The practicing physician is in the best possible position to render service to his patients in prenatal, maternal and infant hygiene. The opportunities for instructing mothers in these phases of personal health are almost innumerable. Is there any ethical reason why after attending a mother in her confinement and puerperium, the physician should not insist that the baby be brought to him for regular periodic examination? If it be granted that this is proper practise, why is it not equally proper to advise further periodic examination during early childhood? But why stop there—let such examinations continue throughout adolescence and adult life.

This brings us naturally to the subject of periodic physical examinations of all persons. That this is a measure to be advocated is unquestionable; but the average physician of today is trained to interpret signs and symptoms in the obviously sick person rather than to look for the abnormal in an individual who feels "perfectly well." In my opinion the periodic physical examination, the so-called "health examination," cannot reach its maximum value until the medical colleges alter their curricula and provide the proper and necessary training for this purpose.

In the meantime, however, the present day physician with the means at his command can accomplish worth while results along the lines I have attempted to sketch very briefly, and thereby add to the peace and happiness of his community and of the state.

CHRONIC APPENDICITIS

A CLINICAL AND PATHOLOGICAL STUDY FROM THE LENOX HILL HOSPITAL

By ROBERT C. SCHLEUSSNER, M.D., NEW YORK, N. Y.

THE object of this study was to determine whether definite chronic inflammatory reactions of the appendix gave rise to a group of symptoms and clinical findings which could be grouped together as forming a definite chronic clinical picture. Such a clinical picture might then be properly designated as "chronic appendicitis."

For the purposes of this paper, we would limit the term "chronic appendicitis" to those clinical syndromes in which there is a more or less continuous symptomatology of at least two weeks duration. It is realized that recurrent attacks of acute appendicitis with no interval symptoms, are an established fact and the term "chronic appendicitis," as above defined, specifically excludes these cases.

The approach to the subject was made from the study of the pathological lesion. It becomes necessary then, to describe the lesion which was the basis of the study. The specific description may be prefaced by the general statement that appendices were sought out which had the mildest possible lesions which were still definitely inflammatory. The serosa and muscularis usually showed a greater or less degree of fibrosis, together with oedema and congestion. There was always some degree of inflammatory cellular infiltration of these same coats. The infiltration consisted of varying proportions of polymorphonuclear leucocytes, lymphocytes, eosinophiles, plasma cells and mast cells and varied considerably in intensity, Appendices showing only highly acute and intense inflammatory reactions were not considered clinically. We also excluded from clinical consideration, appendices in which the pathological department had made a diagnosis of chronic catarrhal appendicitis or chronic obliterative appendicitis. For in the former class (chronic catarrhal appendicitis) are placed appendices with minor changes, confined mostly to the submucosa and mucosa and open to varying interpretations, according to the standard of normal adopted. The latter class (obliterative appendicitis), while definite from the pathological anatomical standpoint, is of doubtful pathogenesis and would require separate consideration.

In fixing the standards as above, it is realized that we are avoiding the question of the relation of the doubtful lesions of the appendix to clinical symptoms. The comparison of symptoms with the pathological lesion under the conditions defined is only a part of the subject of so-called chronic appendicitis, but it is believed to form a basis upon which consideration of the less well defined lesions of the appendix must rest. Our object, as previously stated, was to determine whether or no a clinical chronic appendicitis ever rested upon an unquestionable chronic inflammatory lesion in the appendix, how often it occurred and what the symptomatology and findings were under those conditions.

With this object in view, the study was approached by reviewing the records of the pathological department during the two years, 1923 and 1924. All appendices diagnosed anatomically as chronic appendicitis, subacute appendicitis, or acute and chronic appendicitis (altogether some 97 in number) were selected for study. In many instances the acute reaction was so intense as to mask any fibrosis and these appendices were excluded from further study. In a few instances the lesion was confined almost entirely to the submucosa and mucosa and these appendices were excluded by the standard assumed. With the above appendices excluded there remained 37 specimens in which the inflammatory reaction was so mild or the fibrosis so marked that one might fairly assume the process to have been subacute or chronic in point of time.

The next step taken was the review of the clinical records of the patients whose appendices had shown these assumed subacute or chronic changes. From the clinical aspect it was possible to form three distinct groups.

Group 1. This group was comprised of the cases having the history and physical findings of the usual case of acute appendicitis. The symptoms varied in duration from 12 hours to 2 weeks. None of these patients had had any previous attacks. This group was by far the largest, including 21 cases.

Group 2. This group was comprised of the cases having the same time duration as those in group 1. But these patients had had one or more previous attacks at varying time intervals. In no case, however, had there been any symptoms in the intervals between attacks. This group included 12 cases.

Group 3. This group was comprised of cases that had had symptoms of at least two weeks duration and this is the group that we wish to consider in detail. The clinical syndromes occurring here are the only ones which could, by definition, be considered under the general heading of chronic appendicitis. The group contains but 4 cases and the longest history is of only six months duration. The detailed histories follow:

Case 1. History No. 7501. Female, age 34. Four months previous to admission she had had an attack of abdominal cramps. These lasted several days and during this time the patient vomited once. Thereafter she had more or less continuous pain on the left side of the abdomen. At irregular intervals there was belching of gas and sour eructations occurred. Eight days ago the patient began to have severe persistent diffuse abdominal pain. She vomited once. Constipation has always been present.

Examination showed tenderness in the right upper and lower and the left lower quadrants but only on deep pressure. The temperature on admission was 101 but dropped to normal after several days in bed. Blood count showed 14,500 white cells, with 89% polymorphonuclears. X-ray examination of the gastro-intestinal tract, including a colon bismuth enema, showed tenderness over the hepatic flexure and some apparent fixation of the colon.

At operation the appendix was found bound to the lateral abdominal wall and the omentum was adherent over the coecum and appendix.

Pathological Report.—The appendix was 6 cm. long and 1cm. in diameter. The serosa was roughened and covered by hemorrhagic adhesions in places. The lumen is patent, dilated in the proximal 5.5cm. and obliterated distal to this. The wall measures 2 to 3mm. in thickness. The mucosa is pale and ragged. The lumen contains soft faecal material. Microscopically the serosa shows a well marked and quite uniform fibrosis, with quite well developed collagen fibrils. There are many small blood vessels present and throughout there is a diffuse cellular infiltration consisting mostly of plasma cells, though a small proportion of lymphocytes and polymorphonuclear leucocytes are present. There is a distinct oedema present. The muscularis show no fibrosis but exhibits a mild though distinct diffuse cellular infiltration of eosinophiles, with a few plasma cells and lymphocytes. The submucosa and mucosa showed no marked inflammatory changes.

Case. 2. History No. 5384. Female, age 23. Five weeks before admission patient began to have a sticking pain in the right lower quadrant and generalized abdominal cramps. The pain was especially well marked on arising in the morning. It was relieved by eating, but 15 minutes after eating burning pain would develop in the epigastrium and would be accompanied by nausea and regurtitation. The patient was treated for some weeks with alkaline powders and a special diet, but did not improve. She had never had an attack similar to the present one.

Physical examination was entirely negative excepting slight tenderness in the right lower quadrant. X-ray examination of the gastrointestinal tract showed a normal stomach and duodenum, but there was a small six hour retention in the stomach. On the 24 hour plate a possible appendix was visualized, but nothing abnormal was indicated. No blood count was charted.

At operation the appendix was described as tortuous and somewhat elongated. The mesoappendix was adherent to surrounding structures. The plevis and upper abdomen were explored and found normal.

Pathological Report.—The appendix was 6 cm. long and 1 cm. in diameter. The serosa was pale and glistening, though the vessels were injected. The wall was not thickened and the lumen was patent throughout. The mucosa seemed normal. Microscopically the serosa showed a very marked thickening due to fibrosis of a recent type, with numerous hemorrhages and a profuse cellular infiltration consisting of polymorphonuclear leucocytes and lymphocytes. The muscularis also showed a well marked cellular infiltration, predominantly eosinophilic. Sumbucosa showed a moderate eosinophile infiltration.

Case 3. History No. 7408. Female, age 44. Six months ago the patient had pain in the abdomen which lasted two days. It subsided but returned in two weeks and has been present every day since. It has no relation to meals and does not radiate. It disappears when she lies down and is worse after she has been on her feet all day.

Physical examination revealed slight rigidity and tenderness in the right lower quadrant. There is a first degree prolapse of the uterus with a rectocele and cystocele. Temperature is normal. Blood count showed 14,000 leucocytes with 66% polymorphonuclears, 24% lymphocytes, 2% eosinophiles and 6% transitionals. X-ray examination of the gastrointestinal tract was negative except for slight tenderness over the coecum.

This case was seen in consultation by the surgeons who believed the symptoms were due to the pelvic condition.

The operators notes do not describe the operative findings, but it seems probable from the operative description that the appendix appeared normal.

Pathological Report.—The appendix was 4 cm. in length and 8 mm. in diameter. The serosa was roughened and somewhat injected. The wall measured 2 to 3 mm. in thickness. The lumen was constricted up to 2 cm. from the distal end where it opened into a cyst-like cavity about 7 mm. in diameter. The mucosa appeared atrophic. Microscopic examination showed a moderate thickening of the serosa in places due to a fibrosis of a rather mature type, with small hemorrhages and a few scattered lymphocytes. The muscularis showed a rather scant though definite cellular infiltration consisting of eosinophiles and lymphocytes. There is a mild but definite fibrosis of this coat. The submucosa shows no definite change. The mucosa is atrophic in the dilated area.

Case 4. History No. 2291. Female, age 15. For the past three weeks the patient has had attacks of pain in the right lumbar region. The pain was cramplike in character and did not radiate. It was accompanied by nausea and vomiting. The pain comes and goes at irregular intervals. The patient has been constipated since the onset of the present illness. Two years ago there was an attack similar to the present one.

Physical examination showed moderate tenderness over McBurney's point on deep pressure. Temperature and blood count were normal.

At operation it was noted that the appendix was somewhat inflamed, but there were no adhesions.

Pathological Report.—The appendix was 5.1 cm. long and 8 mm. in diameter. The vessels of the serosa were injected in places. The lumen was narrowed in places. Microscopically the serosa showed patches of well marked fibrosis with thin walled vessels and quite abundant lymphocytic infiltration. The muscularis showed an occasional eosinophile along the course of the blood vessels with occasional small groups of lymphocytes. The submucosa showed quite marked thickening due to fibrosis and showed a scattering of eosinophiles. On the whole a slight intrinsic inflammatory reaction which is open to some doubt.

SUMMARY

An attempt was made to definitely correlate undoubted mild inflammatory lesions of the appendix with a symptomatology of at least two weeks duration. The pathological reports, microscopic slides and clinical histories which had been collected during a period of two years, were the basis of the study. This material was taken from the various ward services of a general hospital and represented about 175 active public beds. Those appendices showing the mildest possible inflammatory reactions about which there could be no doubt were sought out. The clinical histories and findings of the patients from whom these appendices were removed were then investigated. While 37 appendices were found which met with the pathological requirements, there were only four instances where the symptoms had persisted more than two weeks. In these instances the symptoms had lasted respectively 3 weeks, 5 weeks, 4 months and 6 months. Case 3 had an associated gynecological condition which might have accounted for the symptoms, and in case 4 there is some doubt about the pathological lesion.

CONCLUSIONS

The mildest inflammatory reactions of the appendix which are still within the realm of definite inflammation, are very rarely associated with symptoms of more than two weeks duration before the conditions obviously call for surgical intervention.

There is no typical symptom complex constituting clinical chronic appendicitis as defined in this paper. Both pain and indigestion may be present and neither has any distinctive features.

In so far as the clinical course indicates, there is no relation between duration and intensity in inflammatory reactions of the appendix. It would seem wise therefore to divorce the terms "subacute" and "chronic" from any time relationship in indictaing types of appendicitis as viewed by the microscope.

In conclusion we should like to acknowledge the courtesy of the hospital, particularly the pathological department and the record room, in permitting us the use of their facilities.

NINETY-NINE YEARS AGO*

By JOSEPHINE COLEGROVE, NEW YORK, N. Y.

We are inclined to think wistfully of the good old days, when a physician hung out his shingle and forthwith entered upon the practice of medicine. It seems ideally simple. But since reading the advice of Mrs. B. to Mrs. L., in the year 1829, on the subject of choosing a family physician, I am a little dubious. It is rather terryfying to think of passing in review before her judicial eye. She is explicit and certain. Indeed, she shows no reluctance in settling any of the problems which arise in the four hundred pages of "Domestic Duties, or Instructions to Young Married Ladies on the Management of Their Conduct in the Various Relations and Duties of Married Life," an amazing catechism written by a Mrs. William Parkes.

Mrs. L., the pupil, remarks, "The choice of a medical attendant is the subject on which I now wish to know your opinion." The opinion is immediately forthcoming.

"Nothing is of greater importance than this choice; and yet there are few events in life which are more regulated by accident. Locality, a fashionable reputation, or the recommendation of a gossiping acquaintance, may bring an individual into your house, to whose skill your life is to be intrusted, and upon whose integrity your character is to be reposed; upon such slight grounds do we not infrequently place our confidence, and then are astonished if we find it has been given to an unworthy object. . . .

"The first object is to ascertain that the person you are about to employ has been regularly educated; that he is a man of strong intellect, discrimination, and good sense. Without these qualities, a good education will avail him little; it cannot give him either acuteness of judgment, by which he alone could be enabled to observe the nice distinctions which characterize diseases, and to display individual skill, when circumstances occur to require a difference in management from the usual.

"Great danger may arise from calling in ignorant and irregular practitioners. Such men establish their reputation by the boldness of their measures, which kill rather than cure. It is surprising that so much infatuation prevails in this country, in favor of these irregular practitioners, many of whom, if they have any knowledge at all, must have attained it by intuition; yet, people will have the folly to resort to them, and to reject men whose lives have been spent in alternate study and practice. It is not just to the regular practitioners to encourage these spurious offsets; and it is injurious to society to do anything which shall increase their numbers, or give them confidence with the multitude.

"The medical man should be firm in his determinations, but not obstinately so; with sufficient liberality and candour, he should be willing to listen to any suggestion and recommendation, even if it proceed from an unprofessional person. His manner should be cool and collected; nor should any unforseen turn in the progress of a disease, ever deprive him of his self possession. His whole deportment should entitle him to respect and confidence which should give weight to his persuasive powers, when called into action by an untractable patient. He should be cheerful and mild, gentlemanly in his habits, and possess a large store of patience to enable him to listen, even with the appearance of interest, to all the details of an invalid's complaint."

At this point Mrs. L. remarks that in drawing this *beau ideal* of a medical man, conversational powers should not be omitted. Mrs. B. accepts this as a just observation, and proceeds:

"After professional ability, the next point to be ascertained is respecting the moral character and the nice sense of honour maintained by the person to whom you are about to give access to your abode at all times. From his deficiency in these important qualities, may result serious inconveniences.

"The worst traits in the professional character, are the habit of gossipping and being addicted to scandal. Possessing these failings, he carries with him from one house to another an influence not less malignant nor less fatal to happiness than the worst of pestilential diseases. He sows the seeds of dissession, distrust, and illwill among relatives, friends, and neighbors."

Such is the inquisition awaiting the aspiring physician. Can he be blamed for a slight retaliation? Mrs. L. reports:

"I have heard a medical man complain of the ignorance, and even imbecility, which he meets with in many houses, in which a female cannot be found, who can or will dress a wound or blister; or who knows how to foment a limb or apply a poultice; and that these and many other little offices, which can with most propriety be performed by a wife or a mother, are usually done by the rude and careless hands of a hired attendant. Do you not think this kind of ignorance is disgraceful in a well educated female?"

Mrs. B., deeply grieved, admits this lamentable truth, and adds, "I have, I am sorry to say it, seen some ladies object to do all these little services to an invalid, from over delicacy; and have preferred the indulgence of weak feelings and false notions, to the humane desire of comforting and alleviating the pains of an invalid friend. Ignorance from this cause, is, indeed, disgraceful."

But if the medical man resents the apprehension which he and his talents arouse, he may take consolation, perhaps, in the fact that his accomplice, the nurse, is viewed with positive consternation.

Mrs. L. comments, "It is very singular, that in the present state of society, when improvement has extended itself to every rank and profession, that this class of people (nurses) has remained stationary in mind, manners and prejudices. Indeed, were I to describe a sick nurse from those I myself have known, I should say, that infirmity, ignorance, grossness of habit and manners, want of feeling, except where her own interests are concernced, want of cleanliness, and a contemptible disposition to intrigue with servants, form the chief of her characteristics."

Mrs. B. is prompt in her response: "Such I believe a nurse too frequently to be. Let us now inquire what her qualifications ought to be.

"A nurse should possess both physical and moral qualities to render services really useful to the sick. She should be healthy, and not beyond the middle age of life; strong of body, and capable of enduring fatigue and loss of rest. She should be easily roused from her sleep, watchful and active in all her habits, but at the same time quiet and gentle. A bustling and talkative nurse is a great annoyance to an invalid. She should be trustworthy, temperate, not a snufftaker, cleanly in her person, and orderly in her habits; and in her manners, rather taciturn, and willing to be guided by those above her. She should be able to evince firmness in resisting the caprices of the patient. She should also be able to read and write, for without these requirements she should never be permitted to administer medicines to the sick."

As a horrible warning, Mrs. B. then relates a "melancholy little anecdote" about a nurse who couldn't read or write, and who gave the patient an opium embrocation instead of a bark draught, with the result that "her family, who a moment previously had been indulging the joy her expected recovery had excited, were instantly bereft of a treasure, and plunged into the deepest grief."

Touching on a few further details, such as the undesirability of the habits of a glutton, and ill temper, and conceit, her final remarks are that, "Above all things, she should not be addicted to quackery, nor should she ever presume to prescribe medically."

Yet, after all, with the exception of some of the more lurid details, was it such bad advice? Echoes even seem to drift down to us now. But, of course, things are different today. The nurse has acquired an almost appalling efficiency—she even goes to college! As for the physician, a fashionable reputation still has its uses in the luring of patients, but at least the entire journal of his life need not be opened on demand. But the patient, alas, seems sadly degenerated, a mere number on a case record. This is the one thing Mrs. B. never thought of.

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* Domestic Duties: or, Instructions to Young Married Ladies, on the Management of Their Households, and the Regulation of Their Conduct in the Various Relations and Duties of Married Life. By Mrs. William Parkes. Third American; From the Third London Edition, with Notes and Alterations Adapted to the American Reader. New York: Printed by J. & J. Harper, 82 Cliff Street, 1829.

COINCIDENT TUBAL AND UTERINE PREGNANCY

By **AUGUST JAMES RAGGI, M.D., NEW YORK, N. Y.**

ALTHOUGH the occurrence of pregnancy in the uterus and Fallopian tube at the same time is mentioned briefly, if at all, in many of our text books on Gynecology, the condition I believe is frequent enough to warrant a more thorough study and yet rare enough to justify the report of a case.

Tubal pregnancy occurs usually in the central portion of the tube, occasionally in the external and rarely in the internal or uterine end. The union of the fecundated ovum and spermatozoon takes place at the abdominal end of the tube or before the ovum has escaped from the Graafian follicle. The ovum is drawn into the tube by the wave-like motion of the cilia. Any condition, such as inflammatory changes, which interferes with this course may cause its arrest in the tube.

I shall not burden the reader with an extensive review of the literature on the subject, but instead I shall go over the history of this case in detail as it is very illuminating both from a diagnostic as well as a therapeutic point of view. However F. F. Simpson* as early as 1904 collected 113 cases including his own in the literature to that date.

Previous History:

Mrs. M. C. Age 26, Housewife, Married 11 years. Three children. Youngest child four years old. Two miscarriages since last labor. Curetted after first miscarriage three years ago. Menses regular for past year. Menorrhagia ten or twelve days.

Admitted to St. Vincent's Hospital August 6, 1924, complaining of occasional attacks of severe pain in the right lower quadrant for two weeks. On August 3, she was seized with a very sharp pain in the same region. Vaginal bleeding, spotty in nature, but never very profuse, has accompanied patient's condition since the onset. Vaginal discharge for four or five years.

Examination: Pale. Severe anaemia of mucous membranes and conjunctiva. HB. 45% W. B. C. 13,000 Polys 79%. Urine showed Albumin 3 plus, Acetone 2 plus. Temperature 102, Pulse 96, Respiration 28.

Abdomen: Large tender mass in the right lower quadrant. Rigidity.

Vaginal: Uterus moderately enlarged and fixed to a large boggy tender mass in the right broad ligament. Free fluid in cul-de-sac.

Diagnosis: 1. Ruptured Ectopic. 2. Ruptured Pyosalpinx.

Operation: Revealed an abdomen full of clots with a ruptured tube adherent to the right pelvis and intestines. The right tube and ovary were removed.

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* *American Journal of Obstetrics*, March, 1904.

Pathological Report: August 6, 1924. Tube shows Acute purulent Salpingitis. Blood clots contain chorionic villi. Ovary shows active corpus lutei. Diagnosis: Tubal Pregnancy and Acute Salpingitis. Dr. A. Fraser, Pathologist.

The patient made an uneventful recovery and left the hospital August 21, 1924, apparently none the worse for her experience.

On June 9, 1926, I was again called in to see this case. She complained of severe pain in the left lower quadrant since the afternoon of June 5, 1926. Pain cramp-like in character was accompanied by spotty bleeding from vagina. She was greatly prostrated and in a cold perspiration. Last menstrual period April 21, 1926.

On examination the abdomen was generally tender and definitely rigid in the left lower quadrant. Uterus slightly enlarged and adherent to a tender mass in the left broad ligament. Cul-de-sac painful but no free fluid. Referred to hospital with a provisional diagnosis of Ectopic Gestation, but she did not decide to enter the hospital until two days later. Condition seemed improved on admission. Pain still present and cramp-like in nature but not so severe.

Examination: June 11, 1926. Abdomen: Tenderness left lower quadrant but no rigidity. Cervix patulous. Fundus enlarged, about the size of a small grape fruit, 4 in. x 6 in. Small tender mass in left broad ligament. HB. 80% W. B. C. 12,400 Polys 70%. Temperature 103°. Pulse 100. Respiration 18. Red Test:

1st Hr.	16%
2nd Hr.	20%
Total	36%

The diagnosis was changed to Threatened Abortion with Salpingitis.

June 13, 1926: Patient felt much better, pain moderately gone.

June 17, 1926: Uterus had increased in size but still some pain in left broad ligament but very much less.

June 19, 1926: Patient felt exceedingly well, temperature normal, and decided to go home.

The diagnosis of a Threatened Abortion with a flare up in left tube seemed to be fairly certain and inasmuch as the pain had apparently subsided she decided to go on to term under observation at home.

On June 27, 1926, I was again called to see her. The pain recurred the following day and was accompanied with considerable bleeding. The pain was sharp in character but chiefly on the left side, and required the administration of morphine to control it. Cervix was patulous and fundus corresponded in size to about end of the second month of pregnancy with a small tender mass in the left broad ligament. She refused to go to the hospital and on July 1, 1926, she passed a foetus which was kept for my inspection, followed by secundines. The foetus was intact in its sac measuring about 2½ in. in diameter corresponding approximately to the seventh or eighth week.

Everything went along fine until July 9, 1926, when the pain again recurred worse than ever and accompanied by moderate bleeding. I advised immediate removal to hospital as mass in the left broad ligament had apparently increased in size and was extremely tender. Her temperature was 105; Pulse 120; Respiration 22. She had just had a very severe chill.

Admitted to St. Vincent's Hospital July 9, 1926, ice bags applied to abdomen. The following morning her temperature was 103, pulse 110, respiration 20. HB. 70% W. B. C. 13,400 Polys 81. She was extremely ill and insisted that the character of the pain was the same as she had two years previously (Ectopic).

On examination the mass in the left broad ligament was very tender although the size apparently was not increased. It was decided to operate upon her immediately.

Operation: July 10, 1926. On opening the abdomen a slight amount of free blood clots was found. The left tube was immediately inspected and an unruptured tubal pregnancy was brought to view, with the fimbrated extremity acutely inflamed and full of blood clots (tubal abortion). The tube was removed; pelvis mopped dry and abdomen closed.

Pathological Report: Specimen consisted of an enlarged tube full of blood clots. Section shows Chorionic villi and hemorrhage. Diagnosis: Ectopic Gestation. Dr. T. Curphey, Pathologist.

She made an uneventful recovery and left the hospital July 26, 1926 (16 days after operation), having been up and around the ward for four days feeling fine and happy.

The chief point of interest in this case was the difficulty in differentiating between a threatened abortion complicated or caused by a flare up in the adnexa and an ectopic gestation in an inflamed tube. The fact that the right tube had been removed in an operation two years previously did not facilitate a diagnosis of Coincident Pregnancy. The passage of a well developed decidual membrane should not be confused with the ovum itself. Had a tubal abortion taken place in this woman with a subsidence of the pain and little hemorrhage I probably never would have suspected the true condition.

EDITORIAL

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For list of officers of County Medical Societies, see this JOURNAL, page xxvi.

THE DISTRICT BRANCH MEETINGS

The experience of last year demonstated that the District Branch meetings occupy a position that is unique and essential in the official organizations of the physicians of New York State, for they afford the principal opportunity for discussing the affairs of the County Society—the fundamental unit of medical organizations.

The unusual success of the District Branches last fall was due largely to a careful preparation of their programs through conferences of the officers of each District Branch with the officers of the constituent County Societies. These conferences are now being held in preparation for the coming District meetings, with the expectation that they will arouse a cumulative interest in the activities of the County Societies, the District Branches, and the State Society.

JAMES E. SADLIER.

PRESIDENTS' ANNUAL ADDRESSES

May and June are the months of annual meetings of the medical societies of many states and of the nation, and their official Journals are full of their proceedings. Their programs are developed along a standard plan which seems to fit the desires and inclinations of the members. The plans of the meetings fall under three heads, 1. those of the legislative bodies, the houses of delegates, in which questions of a civic and economic nature are considered; 2. those of the scientific sections, devoted to the practice of medicine in all its phases; and, 3. the commercial exhibits at which the physicians meet their friends who supply them with the physical means for practicing medicine.

The sessions of the houses of delegates are usually begun with presidential addresses, which shape and direct the entire proceedings. Presidential addresses are often looked upon as perfunctory affairs that are given under the compulsion of custom; but medical editors and reporters find them to be mines of news. Those of the meetings of recent years have been of increasing interest and value, culminating in their highest point in the 1927 meetings. The reason is probably that the presidents now do far more than those of a generation ago when office holding was largely honorary. Today he receives the greatest honor who has given the greatest service to his medical brethren and to the public.

There is a striking similarity between the presidential address of a physician and a carefully prepared sermon by a church pastor. Presidential addresses, like sermons, may be divided into three classes, 1. doctrinal; 2. inspirational, and, 3. educational.

Presidents have creeds, founded on the medical code of ethics, which is the medical golden rule. The words "I believe" occur frequently in every presidents' address, and rightly so. Ministers of the Gospel have no monopoly of fundamental doctrines which are the compelling rules of their lives. Every president gives expression to his doctrinal creed spontaneously and naturally; and the reason is that physicians generally are actuated by lofty motives, which are worthy of the church.

Presidents naturally adopt an inspirational style of address, and "urge" the members to do their duty. They present the beauties of the straight and narrow path of ethical practice, and the destruction that awaits those who follow the broad way of self-advertising. There is also a growing tendency to urge physicians that their works shall give concrete expression to their creeds.

Presidents almost invariably make the latter half of their annual addresses of an educational nature, and review the activities of their terms of office. Those parts of their addresses are of special interest to readers of medical journals for they have a lasting historic value. The activities which presidents now discuss would have seemed strange a decade ago. Take, for example, the work of Committees on Public Relations. The practice of civic medicine was an unknown term a few years ago when state medicine was an actual threat employed to drive physicians into public health. Presidents now are pointing out the opportunities that await the medical profession to assert their leadership in all forms of public health as well as private practice.

Future historians will find the presidential addresses of the year 1927 to be mines of information which reflect accurately the aspirations and accomplishments of their medical constituents.

SURVEYS BY THE NEW YORK ACADEMY OF MEDICINE

Surveying of govermental and community activities by citizen groups has become an important adjuvant in the functioning of our democratic society. There can be no enlightened public opinion without knowledge of facts ascertained by independent and competent citizens' bodies.

In the domain of health and hospital activities of New York City, the Academy of Medicine has acted as a fact-finding body through its Committee on Public Health Relations. Numerous surveys were made by this Committee which resulted in many improvements of the activities of the operating agencies, whether official or voluntary.

In 1912 through the good offices of this Committee of the Academy, the Associated Out Patient Clinics was established. It did yeoman's service in formulating for the first time in medical history the standards for Out Patient work.

In 1917 the Academy Committee made a survey of dispensaries which resulted in the establishment under the United Hospital Fund of a Committee for Dispensaries Development. The Rockefeller Foundation appropriated over half a million dollars toward the work of this Committee, which was recently completed.

In 1920-1921, the Public Health Relations Committee carried on a survey of hospitals, the report of which was published by G. P. Putman's Sons under title of "The Hospital Situation in Greater New York."

In order that the vast store of information collected during the survey, concerning all phases of hospital work should not become only of historical value, the Committee suggested to the United Hospital Fund that a special Bureau be organized to keep alive and up-to-date, all the facts pertaining to hospital organization and hospital performance. Accordingly, a Bureau was established under the name of the Hospital Information and Service Bureau, which has been operating on an increasing scale since 1922. From its inception the Bureau has been very closely linked with the work of the Academy of Medicine by having as its director the Executive Secretary of the Public Health Relations Committee.

In the June issue of the *Bulletin* of the New York Academy of Medicine there appears a very interesting address by the President of the Academy, Dr. S. W. Lambert, in which he dwells on certain of the problems of the United Hospital Fund in relation to the medical profession. In it he emphasizes the close bond which exists between the Fund and the Academy and the need for a closer understanding between the board of trustees of hospitals and the medical boards. Incidentally he points out the need for a better appreciation by laymen of the services rendered by physicians to the hospitals. The contribution of medical men should absolve them from financial solicitations toward hospital maintenance. Pointing out the increasing amount of costs in hospital care, which are in part due to the legitimate demands of the medical staffs for proper diagnostic and therapeutic equipment, he very wisely concludes by the statement: "Although all this is a legitimate expense, it must be watched to avoid extravagance."

Hospital economics is a subject which is justly receiving a great deal of thought on the part of those concerned with community problems.

MINUTES OF THE ANNUAL MEETING

An account of the proceedings of the annual meeting of the Medical Society of the State of New York is contained in three issues of this JOURNAL. The annual reports of the officers and committees are found in the JOURNAL of May first.

A descriptive account of the several sessions is found in the June first issue.

The official minutes of the House of Delegates are printed on page 670 of this issue.

The papers read before the scientific sections will be published throughout the year, and some will be found in each issue.

A special number in the early Fall will be devoted to the cancer exhibit.

LOOKING BACKWARD

This Journal Twenty Years Ago

Pre-clinical Medicine.—The manuals on Periodic Health Examinations emphasize the importance of the pre-clinical signs of disease, meaning those which occur during the early stages before the patient is disabled with his illness. The importance of these signs were well recognized twenty years ago, as is shown by the June, 1907, issue of this Journal, whose leading article is on Danger Signals from the Skin, by L. Duncan Bulkley, M.D., New York. The author discusses the following nineteen conditions in a manner that is entirely up-to-date at the present time.

1. Syphilis, with special reference to blindness and brain tumors.
2. Eczema in a general nervous and physical breakdown, especially in errors of diet and in eyestrain.
3. Acne, especially in digestive disturbances and in menstrual disorders.
4. Psoriasis, often called "The eruption of health," but often pointing to kidney trouble.
5. Chronic Urticaria, clearly pointing to intestinal disorders.
6. Erythema multiforme, in auto-intoxications.
7. Pruritus in lowered nerve vitality (whatever that may be).
8. Xanthoma Diabeticorum.
9. Boils and carbuncles, indicating "Lowered Vitality."
10. Dermatitis maligna, or Paget's disease of the breast.
11. Acanthosis nigricans with multiple capillary Angiomata—if on the abdomen, points to intestinal cancer.
12. Lupus vulgaris.
13. Purpura rheumatica.
14. Petchial and erythematosus rashes in chronic infections.
15. Purpureal lesions in spotted fever.
16. Rose spots in typhoid.
17. Pigmentary alterations, as in Addison's disease.
18. Sweating and flushing of the skin, (now recognized as evidences of neuro-circulatory asthenia).
19. Dermatitis medico-mentosa.

MEDICAL PROGRESS

Experience with the Scarlet Fever Antitoxic Serum.—N. Lunin of the Childrens' Hospital, Leningrad, mentions the persistency of the recent visitation of scarlet fever in Russia which has led to the manufacture of a pure antitoxin at the Institute for Experimental Medicine. A hundred patients were selected for its exhibition. It was assumed at the outset that septic cases and cases more than five days old were not amenable to serum treatment, and so far as possible these were excluded. Of the 100 cases six ended fatally, but from complications. In all cases the specific action of the serum was manifest, the symptoms due to the disease toxin subsiding, and the earlier the case the more striking the improvement. Serum sickness was very common, taking the form chiefly of urticaria, but no serious consequences were seen. The technique used in the United States for freeing the serum from unnecessary albumins was apparently used in the interest of prevention of serum sickness. The total number of cases treated in Leningrad in five hospitals is now over 700 and only severe cases have been thus treated. The mortality for this series has been a little over 10 per cent. The new serum differs but little from the old Moser serum but is more concentrated. If the first exhibition seems negative in result it is still possible to get positive results by persisting in its use. Serum sickness is chiefly to be expected in children with the exudative diathesis. It does not appear that any attempts at standardization of the serum have yet been made, and it is also apparent that attempts to free the serum from adventitious protein have not yet been completed, judging from the frequency of serum sickness.—*Deutsche medizinische Wochenschrift,* March 11, 1927.

Scarlet Fever Serum.—Prof. J. Husler, director of the Childrens' Division of the Munich City Hospital, gives his experience with the Dick serum which was introduced into Germany in 1925, as follows: He has used it in 34 cases of moderate to severe scarlet fever, but of this number only a minority were desperately ill. A specific action on the fever and exanthem was unmistakable and the altered mental state was striking. Some of the brighter children said they were well and wanted to get up. In other words the antitoxin actually produced a detoxicating effect. But to go to extremes by saying that the disease has become completely robbed of its terrors, the author says, is an exaggeration. The serum does not prevent some of the complications and sequelæ. If it did possess this power we should feel obliged to give it to all patients, even those with minimal manifestations. This in turn would expose sensitive children to the danger of serum sickness, and between mild scarlatina and severe serum sickness Husler would prefer the former. Since 1912 the author has made use of convalescent serum in treating scarlet fever and the parallel between this and the American antitoxin is striking. The former, like the latter, exerts a marked antitoxic action and often has seemed to save life, but it does not prevent complications nor does the fact that it is a human product prevent it from causing anaphylaxis when given in large doses. Owing to the great difficulty in getting supplies of convalescent serum the antitoxin will replace it, and this can probably be improved further with time as regards standardization, etc. Of the prophylactic value of the American serum the author speaks encouragingly. — *Muenchener medizinische Wochenschrift,* April 29, 1927.

Cause of the Onset of Labor.—H. Knauss of Graz refers to the now ancient theory that labor onset is determined in some way by the pituitary hormone, which was believed not only to stimulate the uterine muscle but also to activate the ovarian hormone and hence incidentally, by restoring the function of ovulation, to terminate gestation. The author has been at work along another line, viz., the maturity of the uterine muscle-cells which go through a certain cycle of development and which when at their physiological maximum, automatically determine the onset of labor. It may be shown decisively that the nervous supply of the uterus has nothing to do with the phenomenon. No one has ever succeeded in bringing on normal labor by the administration of any kind of drug until the muscle cells have reached a certain phase of development. However, we know that the growth of these uterine muscle cells is presided over by the ovarian hormone, for in all animals (with the possible exception of apes) double ovariotomy during pregnancy is followed by absorption or expulsion of the fetus. The hormone in question undoubtedly comes, Knauss holds, from the corpus luteum. The pituitary hormone appears to be able to intensify normal contractions of the uterus into labor pains, but there is no absolute evdience that it normally determines labor. The author's studies on rabbits appear to show that by the three-hundred and first or three-hundred and second day of gestation the uterine muscle cells begin to develop spontaneous contractile movements which suffice to set labor in motion. A day or so before term an infinitesimal quantity of pituitrin suffices to bring on labor promptly, but for the day before that a far larger dose is required and so on, until the time when no amount of the drug will exert this action.—*Muenchener medizinische Wochenschrift,* March 4, 1927.

Clinical Causes and Diagnostic and Prognostic Significance of Jaundice.—In presenting a summary of the present status of our knowledge of jaundice, David Reisman (*American Journal of the Medical Sciences,* May, 1927, clxxiii, 662) quotes from the literature to show that no definite proof has been brought that bile is chiefly formed outside of the liver, in the so-called reticulo-endothelial system, or that the liver is merely an excretory organ for bile made elsewhere. He is inclined to believe on clinical grounds, that bile can be formed extrahepatically. The classification of the causes of jaundice into mechanic and dynamic is, in the main, satisfactory, though perhaps a little too rigid. After reviewing the causes of obstructive jaundice and of toxic and infectious jaundice, Reisman reports three cases of epidemic jaundice, in the last of which bile was detected in the urine before the color of the eyeballs attracted attention. Cases of this kind are in the beginning usually called influenza—often abdominal influenza—during the period of apparently causeless fever, nausea, and vomiting. The subsequently discovered jaundice is considered a sequel or a complication. The whole process, Reisman believes, is a unitary disease due to the same obscure transmissible infection which with modern technique should not long elude discovery. Epidemic jaundice seems to bear a relation to acute yellow atrophy or acute degenerative hepatitis. This is illustrated by the case of a physician who fell ill a few weeks after attending 18 or 20 cases of epidemic jaundice and died of acute degenerative hepatitis. One cannot escape the belief that an infection was at work and that the doctor had received such an intensive dose of the poison that he developed what is comparable to an acute yellow atrophy of the liver. In discussing congenital and acquired jaundice it is shown that many features are common to both types and that the differences are scarcely fundamental. In determining the cause of jaundice, it is well to remember that painful jaundice is usually due to mechanical causes, especially to stone, cholecystitis, or cholangitis. If the jaundice is painless, the possibilities are many; with clay-colored stools and choluria, the suspicion falls on the pancreas or some nearby structure. A large gall-bladder is suggestive of disease of the pancreas. Glycosuria also favors the diagnosis of pancreatic disease. A variable icterus index speaks in favor of stone, a constant or increasing figure is most common in extraductal or noncalculous obstruction. Functional liver tests at present give information as to the state of the liver rather than as to the causes of jaundice. In hemolytic jaundice, barring the graver anemias and hemolytic poisons, the prognosis is favorable. Cure is often achieved by splenectomy. No form of obstructive jaundice should ever be taken lightly. In the presence of jaundice the surgeon should limit his interference to the essential minimum.

Conjunctival Icterus as a Sign of Appendicitis.—Dr. C. P. Caplesco, of Bucharest makes a second contribution on this subject six years after the first. Up to that time he had recorded fifty cases of diagnosis of latent appendicitis in which conjunctival icterus was present and which influenced him in arriving at the diagnosis. All of these patients were subjected to appendectomy and all of the appendices showed evidence of disease—hyperemia, increase in volume, and content of bloody matter, feces, or calculi, with the mucosa showing black points and ulcers of various sizes, and the submucosa fibrotic or sclerotic. The icterus was attributed by the author to a toxin elaborated by the diseased appendix. During the intervening six years he has operated on 750 patients with some form of appendicitis—acute, chronic, or latent—and has found his symptom present in every case. Adding the original 50 cases the total of positive finds is now an even 800. He is about ready to set up the dictum that there is no appendicitis without conjunctival icterus. The converse of course is not true—that is, every case of conjunctival icterus does not mean appendicitis, but it would be of much interest to learn how large a proportion of the icterus cases do suffer from these lesions and also what is the frequency of this discoloration. There is a minimal degree of icterus which is not reckoned as pathological. Of one material of 254 school girls 11 to 18 years of age, 99 showed icterus to an abnormal degree. In 100 male students from 19 to 26 years of age no less than 81 showed icterus. The author does not venture an opinion as to the percentage of these students who actually suffered from latent appendicitis, but he thinks the figures show that at the preferred age of appendicitis icterus of the conjunctiva is extremely common, and he evidently believes that it is due to some abnormality of the appendix in the majority of these cases.—*Bulletin de l'Académie de Médecine,* Paris, April 19, 1927.

Three Temperature Types After Nephrectomy for Tuberculosis.—F. Cathelin of the Paris Urological Hospital describes three types of temperature following nephrectomy in the tuberculosis of which the first and by far more common is the afebrile, or apyretic, which is present in more than one-half of all cases and occurs in the classical type of renal tuberculosis. In this type the apyrexia is total from the author's viewpoint but that does not mean that it does not rise above our classical 98.6° F., for according to him "normal is anywhere between 97.7° and 99.5° F." In the last 121 of the author's cases no less than 71 were "afebrile." The second type is termed by the author the acute febrile and is relatively rare, occurring in some ten per cent only. Even by the evening of the day of operation and usually within the first 24 hours the temperature may go as high as 104° and even 105° and upwards (105.8°). This type is encountered in subjects with old tuberculous foci elsewhere—bones, joints, lymph nodes. The prognosis is favorable and defervescence soon sets in. The collateral lesions mentioned are presumably cicatrized and may have shown no activity for very many years. The third and last type is a continuous oscillating fever and is encountered in about one fourth of all cases. There are often collateral lesions as in the second type but these are apparently still active or at least not permanently healed. The first rise of temperature is seen the day after operation and the fever is of moderate intensity, appearing late in the day, the patient being afebrile in the morning. The type is that of hectic fever, so much so that the author terms it "surgical consumption." Convalescence is tedious and the patient may be kept in the hospital for months on account of both the general state and the refusal of the wound to close permanently.—*Le Bulletin Médical,* 1927, xli, No. 16.

Some Varieties of Headache.—In an address before the Stafford Division of the British Medical Association, published in the *British Medical Journal,* April 2, 1927, 3456, Lord Dawson discusses the pathogenesis of headache. Among the etiological factors, which vary in different individuals and even in the same individual at different periods of life, he finds heredity; anxieties, fears, repressions and other psychic conditions; fatigue and exhaustion; gastroenteric disorders (proneness to fatigue, leading to failure of motility, and perhaps secretion, the brain and solar plexus being in error), and hepatic insufficiency. In some cases several of these factors may contribute, whereas in others one will dominate. Eyestrain, tobacco, and alcohol may be exciting factors. In cases in which psychic causes are responsible, the best treatment is to show the patient the nature of the problem. As regards the alimentary tract, once-cooked foods, the avoidance of fats, and in some cases restriction of sugars are important. Persons in whom gastroenteric disturbances are induced by fatigue should be careful to be warm when eating and to partake of light food when tired. When the headache is mainly due to hepatic insufficiency the routine administration of calomel and a saline is beneficial, but for many, if not most, headache-subjects strong aperients are harmful. Castor oil in doses of 1 to 3 drachms once or even twice a week helps many, and others can take the lighter aperients like cascara or senna. Any palliative must be taken at the outset. Salicylate and bromide and sal volatile suit many. Phenacetin is invaluable and amidopyrine helps a few.

For those prone to acidosis sodium bicarbonate is indicated. Luminal is in some cases helpful, but its effects must be watched, as it is not well borne by some patients. Skilled massage of the head and neck, and manipulation which includes gentle traction of the head from the trunk, bring great relief to some persons. Headache illustrates a problem which will increasingly occupy the attention of the medical profession—that of the keeping of man in the path of "physiological righteousness."

Relief of Migraine by the Administration of Concentrated Salts.—H. C. Rook (*The Lancet,* April 2, 1927, ccxii, 14) observes that the old idea that migraine was of hepatic origin has gradually given away to the modern theory of fatigue, eyestrain, or some endocrine defect. It appears that a combination of the old and modern theories is the correct view, and that migraine, at least in a percentage of cases, is caused by hepatic toxins, which in predisposed subjects may be produced by nervous overaction or inhibition. On the basis of this theory, Rook prescribes 2 to 4 ounces of 50 per cent solution of magnesium sulphate one hour before rising, and following this the patient is instructed to lie semiprone on the right side. At the end of an hour a large tumblerful of hot water or hot weak tea is taken. This is most important, since if the salts are not evacuated within two or three hours, a feeling of intense depression is produced which may result in an attack. The day or half-day previous to taking the salts is a starvation period. Each patient must be treated with regard to individual peculiarities; usually the treatment should not be carried out oftener than once a week, and with some persons it is sufficient to give the salts once a fortnight. Certain articles of diet must be strictly limited. These are fats of all sorts, and in certain cases eggs; also chocolate, cocoa, coffee, and alcohol, especially spirits. Regularity of habit should be urged, and as far as possible freedom from worry and fatigue.

Monocytic Angina.—According to Haken of Berlin, this affection was first isolated in 1922 by Schultz and Baader and owes its name to the peculiar blood picture in which the large mononuclears of Ehrlich show a marked increase. Thus far, owing to its mild course, monocytic angina has attracted but little attention, but the author in his present paper relates three fatal cases with autopsy in all. The patients were children from 4 to 8 years of age. The duration of the disease in these patients was from 3 to 15 days. Clinically the disease was of the septic sore throat type, a necrotizing angina with a very thick and discolored deposit. The flora obtained by cultivation showed no type. In one were found diphtheria bacilli and later the Vincent symbiosis, in the second only staphylococci, and in the third diphtheria bacilli with later a few hemolytic streptococci. Two of the patients then seem to have had an initial diphtheria, at least from the bacteriological standpoint, but the bacilli disappeared from the throat at an early period and the subsequent course of the disease did not resemble diphtheria at all. The first child received a single injection of antitoxin at an early period but no favorable reaction was seen. In all three children the spleen was enlarged, but only two showed enlargement of the cervical regional lymph-nodes. The increase of monocytes in the blood was from about 25 to 32 per cent over normal. Etiologically the disease is a puzzle both from the absence of a typical causal organism and from the lack of a contagious or infectious element. The author does not mention in this connection the septic sore throat which at times has been associated with an infected milk supply, and perhaps he has never heard of it—*Deutsche medizinische Wochenschrift,* April 1, 1927.

Circuminjection of Autogenous Blood in the Treatment of Carbuncles. —Louis Carp (*Archives of Surgery,* April, 1927, xiv, 4) reports 12 cases of definite progressive carbuncles in nondiabetic patients treated solely by the circuminjection of autogenous blood, without the utilization of other accessory measures, such as incision, local heat, or narcotics. After the injections the infection did not spread, except in one case; there was quick relief from pain and constitutional symptoms; no reaction was observed after injection. Most of the slough liquefied. The injected blood seemed to remain in the tissues, with gradual modification, for from several days to two weeks, as evidenced by induration or ecchymosis, or both. A violaceus color around the carbuncle appeared after an average interval of six days. All the patients showed a minimal scar at the time of discharge from the hospital. There was no recurrence of the infection locally. Carp believes that the time for cure was probably shorter than it would have been by surgical procedure, although it was impossible to have a series of exactly the same carbuncles with surgical therapy as a control. The technique consisted in preparing the infected area in the usual manner, administering an anesthetic, preferably gas and oxygen or ethyl chloride inhalation, withdrawing blood from the median basilic vein into a 20 c.c. syringe, and immediately injecting it just beyond the margin of induration of the carbuncle. Intracutaneous or subcutaneous injection is begun under considerable pressure, but the needle is pushed perpendicularly deeper and deeper until little pressure is required to force in the blood. From three to six punctures are made, a sterile needle being used for each injection. The author discusses at length the possible mechanism of the curative phenomena.

Some Clinical Aspects of Primary Carcinoma of the Pancreas.—B. M. Fried calls attention to the difficulties in the diagnosis of primary carcinoma of the pancreas, and asserts that it is often impossible to differentiate between a pancreatic and an hepatic tumor, or between a tumor and an inflammatory condition of the pancreas. The complexity of diagnosis is largely due to the topography of the pancreas. In the early stages primary carcinoma of the pancreas, like carcinoma elsewhere in the body, runs a silent course. The first symptoms depend upon the part of the organ primarily involved. In cancer of the head of the pancreas the dominating factor is pressure upon the ducts resulting in icterus and enlargement of the gall-bladder; in cancer of the body the irritation, or possibly the involvement by the new growth, of the solar plexus, causing excruciating epigastric pain, is the outstanding symptom. Jaundice is lacking. Severe pain may also be present in cancer of the head or tail of the pancreas when, due a protracted course, the new growth from these parts of the organ has probably reached the body and has invaded the solar plexus. In primary carcinoma of the body of the pancreas at the onset of the disease the pain is usually confined to the epigastrium, and comes on in paroxysmal attacks at various intervals. Later the pain is more constant, sharp, not related to meals, frequently resembles the gastric crises of tabes, and radiates to the spine or the thorax. There is often a diarrhea accompanied by colicky pain and tenderness. A case is reported in which there was a history of excruciating epigastric pain of one year's duration in a man of 70. Necropsy revealed a tumor which to all appearances originally started in the caudal part of the pancreas and progressed toward the body. Here, as in primary cancer of the head of the pancreas, the outstanding symptoms were not due to involvement of the organ, but were "borrowed," so to say, from its topography. —*Boston Medical and Surgical Journal,* April 21, 1927, cxvi, 16.

LEGAL

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THE ADDRESS OF THE PRESIDENT OF THE UNITED STATES

At the recent annual meeting of the American Medical Association in the Arcadia Auditorium at Washington, President Coolidge delivered a noteworthy address. A large gathering of physicians from every part of the country greeted the President and listened with interest and just pride while he extolled the aims and the principles of the medical profession.

There is all too little recognition and appreciation on the part of the lay public of the Doctor and the purposes for which he spends his life. Perhaps from this fine, cogent and sincere address delivered by a man who justly has acquired and increasingly holds the respect and confidence of everyone, irrespective of party affiliation, may come a clearer and a juster understanding on the part of the lay public of what it is for which the medical profession has striven and is endeavoring to accomplish.

"Those who have witnessed the general paralysis which prevails when even a moderate epidemic breaks out," the President declared, "cannot help but realize that one of the most important factors of our everyday existence is the public health, which has come to be dependent upon sanitation and the medical profession. We are constantly in receipt of the beneficial activities of these efforts in the disposition of waste, the water we drink, the food we eat, and even in the air we breathe. * * * In its main aspects it is preventive, but in a very large field it is remedial. Without this service our large centers of population would be overwhelmed and dissipated almost in a day and the modern organization of society would be altogether destroyed. The debt which we owe to the science of medicine is simply beyond computation or comprehension."

To the critics and the assailants of the medical profession these words, coming as they did from the Chief Executive of the nation, should have the weight and respect and the influence to which both by their truth and the authority which uttered them they are entitled.

How keenly conscious of the true nature of science and of the efforts which it is every hour putting forth in the interests of mankind the President was, appeared when he continued: "But great effort is being put out all around us and a constant advancement of knowledge is in progress. This has been especially true in the science of medicine. Many of the diseases which laid a heavy toll on life have been entirely eradicated and many others have been greatly circumscribed. The average length of life has been much increased."

And still further: "If there is any one thing which the progress of science has taught us, it is the necessity of an open mind. Without this attitude very little advance could be made. Truth must always be able to demonstrate itself. But when it has been demonstrated, in whatsoever direction it may lead, it ought to be followed. The remarkable ability of America to adopt this policy has been one of the leading factors in its rise to power. When a principle has been demonstrated, the American people have not hesitated to adopt it and put it into practice. Being free from the unwarranted impediments of custom and caste, we have been able to accept whole-heartedly the results of research and investigation and the benefits of discovery and invention."

These truths, could they once become generally understood and recognized, would put an end once and for all time to charlatanism and quackery. There is no more open-minded body of men in any field of endeavor than the members of the medical profession. They do not oppose the cults and the quacks because of jealousy or from any other improper motive. All that they say is that they will refuse to endorse and approve so-called medicines and cures whose real power to achieve that which it is claimed for them has not been demonstrated. They refuse to subscribe to claims incapable of demonstration. "Truth," said the President, "must always be able to demonstrate itself." When any assertion is capable of demonstration, there is no one more ready to embrace it than the Doctor, because every scientific man recognizes it as a fundamental tenet of his faith and that, as the President declared, for the "progress of science" there is "the necessity of an open mind."

With a clear appreciation of all that the medical profession has done, the President went on, "There is no finer page in the history of civilization than that which records the advance in medical science. The heroism of those who have worked with deadly germs and permitted themselves to be inoculated with disease, to the end that countless thousands might be saved, was less spectacular, but no less far-reaching than that on the battlefield or of an isolated rescue from a burning building or a sinking ship."

Citing William Osler as his authority, the President called attention to the fact that the average working life of English speaking men had been doubled within three centuries, and that most of that gain had been made within the last fifty years.

"The development of preventive medicine," the President continued, "has been one of the outstanding features of that period. Whereas in the old days the doctor healed, if he could, those who had become afflicted, the greatest stress today is laid upon keeping the body sound and efficient. Proper methods of living are taught and suitable diets are prescribed. Hygienic conditions for the home, the workshop and the factory have been adopted. Periodic physical examinations are urged in order that disease may be turned back before it has become seriously developed."

The increasing capacity of physicians to work together for the accomplishment of the fundamental aims of their profession, and their willingness to adopt and apply any knowledge once it has borne the test of scientific scrutiny, were duly noted by the President.

"Cooperation and tolerance," he said, "which have been developed so widely in industrial and social relations," are now found in a marked degree in the medical profession. The work being done by the American Medical Association is a striking illustration of this. In years gone by physicians were apt to be suspicious and intolerant of other schools and of other methods of treatment. There has been a great change. The modern broad-minded physician is willing to use or to recommend whatever methods seem best suited to the case in hand. Furthermore, he is the strongest advocate of prevention. He it is who is taking the lead in the development of everything which promises to promote health and to reduce sickness to the minimum, even though its tendencies are to diminish the practice upon which he relies for his income."

The truly humanitarian and unselfish motives that inspire the medical profession were fittingly acknowledged by the President of the United States when he declared "Our larger cities support free dispensaries, our hospitals have provision for free service, and of all the professions, with the possible exception of the ministry, our physicians give most unsparingly of their time and their skill for the alleviation of human suffering."

Casting his eye over the horoscope of the future, Mr. Coolidge closed his address with these words, constituting at one and the same time both a prophecy and a tribute to the healing art and all those who follow it: "What part the physician will play in the further advancement of the well-being of the world," he said, "is an interesting speculation. It is a well-known proverb that 'Cleanliness is next to godliness.' No one can doubt that if humanity could be brought to a state of physical well-being, many of our social problems would disappear. If we could effectively rid our systems of poison, not only would our bodily vigor be strengthened, but our vision would be clearer, our judgment more accurate and our moral power increased. We should come to a more perfect appreciation of the truth. It is to your profession in its broadest sense, untrammeled by the contentions of different schools, that the world may look for large contributions towards its regeneration, physically, mentally and spiritually, when not force but reason will hold universal sway. As human beings gain in individual perfection, so the world will gain in social perfection, and we may hope to come into an era of right living and right thinking, of good will, and of peace, in accordance with the teachings of the Great Physician."

BROKEN NEEDLE IN HYPODERMIC INJECTION

A woman about 24 years of age called upon the physician at his office for the purpose of arranging for her care during her expected confinement. At this time she was about eight months pregnant. She stated to the physician that she was still troubled with nausea and vomiting. The physician advised the injection of a lutein preparation made from the corpus luteam of the ovary which he stated had proved successful in previous cases in controlling nausea during pregnancy. For the purpose of administering the medication a hypodermic needle was prepared, the physician taking a new needle, about three-quarters of an inch in length, which had not been previously used. After sterilizing the needle the site of injection on the patient's leg was likewise sterilized with an antiseptic soap, alcohol, ether and lysol solution. The injection was then made in the anterior aspect of the thigh about a third of the distance from the knee. The patient seemed to be nervous and had not fully made up her mind whether or not she wanted the injection. The patient was accompanied by her mother who had told the physician to proceed with the giving of the injection, telling the patient that the same would not hurt. Just as the physician was about to administer the hypodermic injection the patient grabbed his hand. He cautioned her not to move and to keep quiet. He then inserted the needle in the leg and when the same was partially inserted the patient again grabbed the physician's hand, causing the physician to press heavily upon the needle so that the same broke at the hilt. The physician immediately notified both the patient and her mother that owing to the movement of the patient and the grabbing by her of the doctor's hand, the needle had broken and that part of it was in the patient's leg. He then endeavored with his fingers and with forceps to remove the needle, but was not able to locate the same. The physician further advised both the patient and her mother that the needle was sterile and that if it were permitted to remain in the leg it would not cause any injury; that she should return home and that he would make arrangements for the attempted extraction of the needle by means of an electro magnet.

During the evening of the day when the hypodermic injection was administered and the needle had broken, the patient's husband telephoned the physician, stating that the patient's leg was swollen and that she was suffering intense pain. The physician then called upon the patient at her home, at which time she complained of pain in the leg and the physician prescribed cold compresses of boric acid solution. Upon examination he found no swelling of the leg, no irritation or apparent infection. On the morning of the following day he again called upon the patient at her home, examined her leg, found no swelling, irritation or infection and advised that he would arrange for the attempted extraction by an electro magnet. The physician located an electro magnet at a physicians' supply house, and arrangements were made for the use of the magnet on the following morning. The physician took the patient to the supply house and applied the electro magnet to the patient's leg, but was not successful by this means of extracting the needle. Thereafter, an X-ray was taken which showed the presence of the needle in the leg, but not imbedded in the bone. After examination of the X-ray the physician advised the patient that surgical interference was not necessary at that time, that the needle would not migrate and would not cause any injury, and advised that it be left alone for the time being. He further advised against surgical interference during the pregnant condition of the patient. Several days later he again called at the patient's home, examined the leg and found no swelling, irritation or infection. The patient, however, was limping while she walked. A few days thereafter the husband of the patient called at the physician's office and advised that he was taking his wife to a hospital. No further treatment was rendered by the physician nor was the patient again seen by this physician.

Actions of alleged malpractice by the patient and her husband were instituted against the physician. In the complaints it was alleged that the defendant as a physician had been engaged to administer to the patient for the pains from which she was suffering shortly prior to the birth of a child, and that the defendant physician was careless and negligent in and about the care of the patient and particularly about the care of her right leg, where he had inserted a hypodermic needle in such a negligent and careless manner as to cause the needle to break off in the patient's leg; that the needle had entered the bone where it has remained ever since and that by reason of the carelessness of the defendant in the hypodermic administration, the patient was caused great pain and anguish and her leg to become swollen and inflamed and her general health to become greatly impaired, for which she sought to recover money damages.

The husband in his action sought to recover damages for medical expenses claimed to have been incurred in the further treatment of his wife and for the loss of her services.

On behalf of the plaintiff a motion was made for a preference upon the trial calendar on the ground of the impecunious condition of the plaintiff and need for money in order to procure further medical treatment alleged to have been rendered necessary by reason of the defendant's negligence. The preference for a trial was granted. When the action appeared on the calendar for trial a dismissal was had of the complaint because of the non-appearance in behalf of the plaintiffs and judgment dismissing the complaints was entered in favor of the defendant.

HOUSE OF DELEGATES

HOUSE OF DELEGATES

The Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Niagara Hotel, Niagara Falls, on Monday afternoon, May 9th, 1927. Speaker, Dr. E. Eliot Harris; Vice Speaker, Dr. Harry R. Trick; Secretary, Dr. Daniel S. Dougherty.

The Speaker announced that the secretary would call the roll by counties for the purpose of determining the presence of recognized delegates. A quorum being present, the Speaker declared the House organized for business.

1. Report of the Committee on Credentials

The Speaker: The first order of business is the report of the Committee on Credentials, Dr. Dougherty.

The Secretary: Mr. Speaker and Gentlemen the Committee on Credentials has the pleasure of reporting that there is no duty for it to perform, as there are no disputed delegations.

2. In Memoriam of Drs. Campbell and Jones

The Vice Speaker: The Speaker has asked me to read the following communication:

Since the last meeting of the House of Delegates death has taken two ex-Presidents who were life members of this House, our beloved Dr. William Francis Campbell and Dr. Owen Elon Jones. Out of respect for our deceased life members I shall ask the House to rise and remain standing in silence for two minutes.

The House thereupon rose and remained silent for two minutes in respect to the memory of Dr. William Francis Campbell and Dr. Owen Elon Jones. (Sec. 56.)

3. Approval of Minutes

The Vice Speaker: The next order of business is the reading of the minutes of the previous meeting. They have been published. Are there any corrections or additions? If there are none, they will stand approved as printed, and it is so ordered.

4. President's Address

The next order of business is the address of the President. (Reference Committee's report in Sec. 45).

5. Reference Committees

Dr. H. S. Patterson, New York: It has been customary heretofore that the addresses be referred to the various reference committees. I suggest the appointment of a reference committee on this address.

The Vice Speaker: That does not require a second. Mr. Secretary, you will kindly read the reference committees appointed by the Speaker.

The Secretary read the appointments as follows:

Reference Committee on Credentials—Daniel S. Dougherty, New York, Chairman; Morris Maslon, Warren; Le Roy Becker, Schoharie; George Mord, Richmond; Harvey W. Humphrey, Lewis.

Reference Committee on President's Address—Horace M. Hicks, Montgomery, Chairman; Walter T. Dannreuther, New York; Thomas C. Chalmers, Queens; James H. Flynn, Rensselaer; Norman L. Hawkins, Jefferson.

Reference Committee on Reports of Secretary, Treasurer and Trustees—George A. Leitner, Rockland, Chairman; Charles L. Nichols, Columbia; Charles L. Davis, Genesee; Gustave A. Fensterer, Nassau; Mary D. Rose, New York.

Reference Committee on Report of Committee on Legislation—Terry M. Townsend, New York, Chairman; Ralph E. Brodie, Orleans; W. Grant Cooper, St. Lawrence; John A. Hatch, Yates; George B. Stanwix, Westchester.

Reference Committee on Report of Committee on Public Health and Medical Education—Henry S. Patterson, New York, Chairman; Reeve B. Howland, Chemung; Robert DeCeu, Erie; Charles R. Barber, Monroe; A. Sloan, Oneida.

Reference Committee on Report of Committee on Scientific Work—Arthur J. Bedell, Albany, Chairman; George S. Lape, Broome; Carl Boettiger, Queens; Dudley R. Kathan, Schenectady.

Reference Committee on Reports of Council and Censors—Leon M. Kysor, Steuben, Chairman; Frank L. Eastman, Ulster; Addison H. Bissell, Otsego; Joseph B. Hulett, Orange; Elias H. Bartley, Kings.

Reference Committee on Reports of Councillors—Chauncey R. Bowen, Allegany, Chairman; Frank Guillemont, Niagara; Albert W. Ferris, Schuyler; William H. Cantle, Westchester; V. S. Hayward, Bronx.

Reference Committee on Report of Legal Counsel—J. Richard Kevin, Kings, Chairman; I. J. Landsman, Bronx; Charles E. Scofield, Kings; Willard H. Veeder, Monroe.

Reference Committee on Report of Committees on Medical Economics, Public Relations, and Cardiac Diseases—Floyd S. Winslow, Monroe, Chairman; James Pedersen, New York; Robert M. Elliott, Seneca; Luther C. Payne, Sullivan; J. Leonard Byrnes, Washington.

Reference Committee on Report of Special Committee on Nurses—William A. Jewett, Kings, Chairman; William R. Thomson, Wyoming; Charles R. Borzilleri, Erie; Aaron Sobel, Dutchess-Putnam; William M. Patterson, New York.

Reference Committee on New Business—A—John Douglas, New York, Chairman; Howard T. Langworthy, Kings; Lucius H. Smith, Wayne; S. S. Ham, Schenectady.

Reference Committee on New Business—B—Robert H. Halsey, Chairman; Raymond C. Almy, Cayuga; Thomas N. Jenkins, Albany; Alec N. Thomson, Kings; Ward B. Hoag, New York; E. R. Cunniffe, Bronx.

Reference Committee on New Business—C—Thomas P. Farmer, Onondaga, Chairman; Baldwin Mann, Erie; R. Paul Higgins, Cortland; Alton B. Daley, Greene; James P. Brady, Monroe.

The Secretary: I move that the reports, as they all have been printed, be referred to the respective committees without reading.

Seconded and carried.

6. Resolutions Regarding Cosmetics—Dr. Hubbard

The Vice Speaker: Is there any new business to be brought before the House of Delegates?

Dr. S. Dana Hubbard: With the permission of the House I would like to present the following resolutions for adoption:

Whereas, Attention has been called, from time to time, through the courts, newspapers and scientific magazine articles, of cases of dermatological irritation and poisoning through the use of cosmetics containing dangerous chemicals;

And, Whereas, Illness and deaths have been occasioned through such practices, and harm almost invariably follows such practice;

And, Whereas, Physicians and public health departments have in numerous instances analyzed package preparations of proprietary articles sold for personal embellishment and known to contain dangerous chemicals, like lead, arsenic, barium, wood alcohol, various amines, particularly para phenylene diamin, and various solvents, coal tar derivatives, benzol, etc.;

And, Whereas, Seldom, if ever, is the public warned by label, device, or other mark of the presence of such dangerous chemical;

And, Whereas, Drugs and chemicals used for cosmetics, or personal adornment, are not included in the National Pure Food and Drug Act;

Be It Therefore Resolved: 1. That it is the sense of this House that this use of dangerous chemicals is a menace to the welfare of the public and against the best interests of the public health;

2. That it is recommended that all pharmacal manufacturers and proprietary remedy producers be publicly advised of this dangerous practice;

3. That it is the recommendation of this body that all packages containing material, alone or in combination, intended for cosmetic use, be properly labelled, when such contains a drug or chemical which when improperly or frequently used may cause irritation of the skin or illness;

4. That any remedy for use in ornamentation containing an appreciable amount of any drug or chemical contained in the list of known dangerous chemicals, be required to bear the usual POISON label and a red label be used as is generally done in pharmacies when handling materials for external use;

5. That the State Society approves of efforts to require public regulation of all dangerous chemicals used in the embellishment of the human being, and that such preparations be made subject to the same rules and laws as govern drugs in the State Pharmacy Act;

6. That the Delegates to the American Medical Association from this body, be herewith instructed to present resolutions to the House of Delegates of that body, memorializing Congress to approve of an Act requiring cosmetics to be subject to the same rules and regulations in interstate traffic and commerce as are required of drugs generally;

7. That in order to prevent deceit and fraud in these sales or use of cosmetics, any amendment considered, regarding publicity or information, shall be fair, truthful, and no claim to be made which is not within the accepted scientific knowledge of any article or ingredient or combination of such materials, not only in and about the package, but wherever such claims are made;

8. That any preparation sold for self-use, without a prescription (Rx), and containing an appreciable quantity of a known poison shall be labelled with the word and insignia usually applied to such materials and the nature of the drug, together with the approved antidote with suggested first aid be clearly printed on each such package.

The Vice Speaker: This resolution will be referred to Reference Committee A, on New Business (Report in Sec. 23).

7. KINGS COUNTY AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

Dr. Goodrich, Kings: Mr. Speaker, with a cordial earnest desire to contribute to the safety, the soundness, the fraternalism and the greatest possible progress of the Medical Society of the State of New York and with the definite aim of perfecting the development of mutual confidence and co-operative efficiency which would result from a truly representative government, the delegation from Kings County presents the following amendments to the Constitution and By-Laws of the Medical Society of the State of New York:

The Constitution now reads as follows:

Article IV. "The Council shall be composed of (a) officers of the Society, (b) Chairmen of the Standing Committees, (c) the Editor-in-Chief, (d) the retiring President for a term of one year after his term of office has expired."

This is to be amended to read:

"The Council shall be composed of the President, the Secretary, the President-Elect, the Treasurer, and the President and Secretary of each of the District Branches."

Article V. now reads as follows:

"The officers of the Society shall be a President, a President-Elect, two Vice-Presidents, a Speaker, a Vice-Speaker of the House of Delegates, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, five Trustees, and one Councillor from each District Branch, who shall be the President thereof. He shall be elected by the District Branch in which he resides for a term of two years. The officers, except the Councillors, shall be elected for one year or until their successors have been duly chosen. They shall take office at the termination of the annual meeting."

This to be amended to read:

"The officers of the Society shall be a President, a President-Elect, two Vice-Presidents, a Secretary, an Assistant Secretary, a Treasurer, an Assistant Treasurer, a Speaker, a Vice-Speaker, five Trustees, and two Councillors from each District Branch, who shall be the President and Secretary thereof. They shall be elected by the District Branch in which they reside, for a term of two years. The officers, except the Councillors, shall be elected for one year or until their successors have been duly chosen. They shall take office at the termination of the annual meeting."

Amend the By-Laws:

Section 26 to be repealed and amended to read:

"The Executive Committee of the Council shall be constituted as follows: The President, the Secretary, the Treasurer, and four of the eight Presidents of the District Branches, those from 1, 3, 5, 7, serving for one year and those from District Branches 2, 4, 6, 8, the next. The Executive Committee shall, when elected, organize immediately and elect a Chairman, a Vice-Chairman and a Secretary. The Executive Committee shall hold regular meetings at times and in places that shall be fixed by the Chairman and at other times subject to the call of the Chairman, and any two members of the Executive Committee may require the Chairman thereof to call a meeting for such time and place as shall be designated by them in writing, of which the members shall have at least three days' notice. Four members shall constitute a quorum. It shall prepare a budget to be acted upon by the Board of Trustees."

Section 38 to be repealed and amended to read:

"The Speaker shall preside at all meetings of the House of Delegates and shall perform such other duties as parliamentary usage may require."

Section 62 to be repealed and amended to read:

"The President shall report to the Council the committees that he shall deem expedient for the purposes of the meeting of the House of Delegates and the members of these committees shall be elected by the Council at the meeting of that body in February preceding the meeting of the House of Delegates."

Section 20 of the By-Laws to be repealed and amended to read:

"It shall meet once during the months of October, December, February and April of each year, the time and place to be selected by the President, and it shall meet at other times upon the request in writing of five members of the Council upon the call of the President."

I submit these, sir.

The Vice-Speaker: All suggested amendments to the Constitution and By-Laws must lie over for one year.

8. WESTCHESTER COUNTY RESOLUTIONS ON STATE BOARDS OF NURSING ADMINISTRATION

Dr. Stanwix, Westchester: The Medical Society of the County of Westchester calls attention to a situation resulting from the present administration of the Bureau of Nursing of the Board of Regents of the State of New York. The increasing power granted by the Legislature to this Bureau has resulted in an autocratic control of the nursing profession. The work of Hospitals and Training Schools for nurses has become so handicapped under the administration of this Bureau as to severely curtail their former efficiency. The care of the sick has been subordinated in creating standards which should only be applied to the adminstrative and teaching nurse.

The interference in the management of local hospitals has created an intolerable situation to which the attention of the Governor and Legislature of this State is respectfully called.

Wherefore, the Medical Society of the County of Westchester at a regular meeting held at Bronxville on April 19th, 1927, resolved that legislation be suggested to establish a Board of Nursing Administration, quite independent of the Board of Regents. That the personnel of this Board of Nursing Administration be appointed by the Governor or Legislature on the nomination of

1. The New York State Nurses Association.
2. The Medical Society of the State of New York.
3. The New York State Hospital Association.

That the details of this proposed relief legislation be worked out by a joint Committee appointed by the three societies mentioned.

That the Medical Society of the County of Westchester instructs its delegates to present these resolutions at the May Meeting of the State Society and attempt to organize a Committee to further the enactment of this relief legislation.

That copies of these resolutions be forwarded to the Governor and the Westchester County members of the Legislature and to the Presidents of the three Societies mentioned.

Signed, Harrison Betts, Secretary.

The Vice-Speaker: Referred to Reference Committee C on New Business (Report in Sec. 26).

9. COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

Dr. Kopetzky, New York: In view of the fact that there have been in the last number of years amendments to our Constitution and By-Laws, all of which are rather scattered, and in view of the fact that there are amendments presented today which must necessarily lay over for a year before being considered, I move you, sir, the appointment of a committee to revise the Constitution and By-Laws—a committee of five appointed by the Speaker to report to the House of Delegates at the next annual session.

The Secretary: I would recommend—I don't want to make an amendment, but I would recommend that in appointing a committee of that kind, the appointment be made by the President.

Dr. Kopetzky: I am willing to accept the suggestion. Seconded and carried.

10. PRESCRIPTIONS FOR ALCOHOL

Dr. Chalmers, Queens: I offer the following resolution:

WHEREAS, The Congress of the United States, under the authority of the Eighteenth Amendment to the Constitution of the United States passed an enabling act known as the Volstead Law, and

WHEREAS, Said Volstead Law provided, in part, that "No physician may prescribe more than one pint of spirituous liquor to be used by a patient within any period of ten days" (Section 7, Title II, National Prohibition Act, 41, Statute 305) and,

WHEREAS, The Supreme Court of the United States has decided by a majority of five to four in the case of Lambert vs. Yellowley that the Congress has power to limit the amount of whisky which a physician may prescribe for a patient to one pint in ten days, irrespective of the patient's condition or the physician's opinion as to the patient's needs, and

WHEREAS, In the course of the minority opinion of the Supreme Court, Mr. Justice Sutherland said,

"It is now said by the majority (of the Court) at one point, that the preponderating opinion of practicing physicians is against the use of all three (spirituous, vinous and malt liquors) and, at another point, that only a minor fraction hold the other view. I am quite unable to assent to these generalizations. On the contrary, the impossibility of determining from anything now before the Court what is the preponderating opinion upon this subject, is very clear," and

WHEREAS, The assumption by the Congress in the enactment of the Volstead Law, of the right to limit the amount of spirituous or vinous liquors which physicians may prescribe as therapeutic agents in the treatment of disease, is dangerous, hazardous and detrimental to the public health, and

WHEREAS, In view of this decision of the Supreme Court, no one is able to foresee to what extremes of restrictive legislation the Congress may go or what drug, therapeutic agent or professional privilege may be curtailed, and

WHEREAS, Whisky, brandy and vinous liquor are included in the list of drugs in the latest edition of the United States Pharmacopoea and are necessary therapeutic agents in the treatment of disease, and

WHEREAS, The limitation of the therapeutic use of these drugs is not within the purview of the National Prohibition Law or the Volstead Act, which relate to the control of the use of spirituous or vinous liquors for beverage purposes; and

WHEREAS, It is recognized as the right of the Congress to enact such laws and regulations as will prevent the diversion of spirituous or vinous liquors for beverage purposes only, provided there be not thereby curtailed the right of the physician to prescribe and administer in good faith such liquors in such amount and dosage as in his scientific judgment the need of his patient may require; and

WHEREAS, It is not only the right but the sacred duty of Americans, inheriting as they do, the inestimable privileges of Anglo-Saxon liberty, to petition for a redress of grievances,

Therefore, Be It Resolved, That the House of Delegates of the Medical Society of the State of New York at its annual meeting at Niagara Falls on May 9th, 1927, and representing as it does more than ten thousand duly licensed physicians of this State, mindful as it is of the solemn duty of the doctor to render to his patient whatever treatment the true teachings of science declare to be necessary or beneficial in caring for the sick and resenting with stern disapproval any arbitrary and unscientific curtailment of this obligation, realizing full well that to prevent the physician by arbitrary regulation from using for his patient's benefit whatever therapeutic agent his scientific knowledge and his conscience dictates, emphasizing its disassociation with any political issue, commonly referred to as "wet" or "dry," in unmeasured terms condemns this unjust, unwise, unsound, arbitrary and unscientific curtailment of and reflection upon the medical profession as a whole, and therefore, not in its own behalf but in that of the lay public, whom it seeks to serve, earnestly petitions for the immediate repeal of this section of the Volstead Law, and

Be It Further Resolved, That the delegates from New York State to the House of Delegates of the American Medical Association be instructed to present and by all proper means to advocate the adoption of a memorial to the Congress of the United States, demanding the immediate repeal of that Section of the Volstead Law and to employ all legitimate and honorable means for the education of the American public on this vital question.

The Vice-Speaker: Referred to Reference Committee B on new business. (Report in Sec. 16).

11. ATTENDANCE OF DELEGATES AT THE AMERICAN MEDICAL ASSOCIATION

Dr. Chalmers: I have here, Mr. Speaker, another resolution:

WHEREAS, In the past years one or more delegates of this Society to the American Medical Association have not attended the meetings of the House of Delegates of the American Medical Association, and

WHEREAS, The roll call of the delegates to the American Medical Association is held on the afternoon of the fourth day of the meeting of the House of Delegates of the American Medical Association for the election of officers;

Therefore Be It Resolved, That any member of this Society permitting his name to be presented for election as a delegate to the House of Delegates of the American Medical Association, pledges himself that, in so far as it is within his power, he will attend all meetings of the House of Delegates of the American Medical Association that may be held during the term for which he was elected as such delegate. Referred to Committee A on new business. (Report in Sec. 24).

12. NASSAU COUNTY'S LAY SECRETARY

The Vice-Speaker: Is there any further new business?

Dr. Fensterer, Nassau County: I have the following resolution:

WHEREAS, The Medical Society of the County of Nassau has for a period of more than three years employed a salaried layman as Executive Secretary, and

WHEREAS, It is the unanimous opinion of the members that, during this period, the secretarial duties have been more thoroughly and satisfactorily performed than it would be possible to expect were a busy practicing physician responsible for such a task, and

WHEREAS. During the cited period the society has evidenced the most encouraging growth in membership, attendance at meetings, and cohesive enthusiasm, which flourishing condition we attribute in no small measure to the efficiency of the secretarial office, and

WHEREAS, It has come to the attention of the Society that the Medical Society of the State of New York has declined to recognize officially this lay Executive Secretary, now therefore

Be It Resolved, That the delegates of the Medical Society of the County of Nassau be, and hereby are, instructed to take such steps as may be necessary to bring to the attention of the House of Delegates of the 1927 Annual Meeting of the Medical Society of the State of New York the many advantages which it enjoys by reason of the efficiency of its lay Executive Secretary, and as a constructive suggestion to urge upon the other component county societies that they give thoughtful consideration to the advisability of the employment of such a person, and be it further

Resolved, That the said delegates be instructed to do all in their power to bring about a change in the policy of the Medical Society of the State of New York to the end that it may hereafter be the privilege of each component county society to elect if it so desires, either a physician secretary or a lay executive secretary, in either case the person so elected to be fully and completely recognized as the secretary of the society in all official matters wherein a secretary shall have jurisdiction.

Dr. Trick: You offer this as an amendment?

Dr. Fensterer: I offer it as a resolution and amendment to the existing by-laws.

The Vice Speaker: Any amendment to the Constitution and By-Laws will lay over a year.

Dr. Fensterer: That is for the Legislation Committee to recommend. We only ask you to recognize our lay secretary. If there is any legislation that would be necessary, that I believe would be the prerogative of the Legislative Committee as appointed.

The Secretary: Mr. Speaker, this is an amendment; the whole resolution is an amendment to the Constitution, as it is a provision that a layman can be elected secretary of a County Society. Therefore it cannot be taken up as a resolution. It must come up, sir, as an amendment to the By-Laws or Constitution, whichever class it is, and lay over for a year, and necessarily will have to be presented as an amendment.

Dr. Fensterer: I will present it as such. I present it as an amendment.

The Vice-Speaker: It will have to lay over for a year.

The Secretary: Apropos of the resolution and amendment offered by Dr. Fensterer, I move that a copy of this be referred to the Committee on Revision of Constitution and By-Laws, and that this action be taken with all such matters presented to this meeting, and all other suggested amendments.

Seconded and carried.

13. NASSAU COUNTY COMMENDATION OF GRADUATE INSTRUCTION COURSES

Dr. Fensterer: I have another resolution; this is not any recommendation of change of By-Laws; it is something we are going to thank the Society for.

WHEREAS, The Medical Society of the County of Nassau has enjoyed and been greatly benefited by a series of weekly post-graduate lectures during the months of January, February, March and April, 1927, and

WHEREAS, This course was supplied without cost to us by the Committee on Public Health and Medical Education of the Medical Society of the State of New York, and

WHEREAS, this County Society recognizes fully the great amount of detail required to arrange an unbroken series of lectures over such a period of time, now therefore be it

Resolved, That the members of the Medical Society of the County of Nassau shall now give cordial and unanimous voice to their appreciation of the service rendered to them by the Committee on Public Health and Medical Education of the Medical Society of the State of New York, and similarly express their gratitude to each of the speakers who have come to them, by instructing their duly appointed delegates to the 1927 Annual Meeting of the Medical Society of the State of New York to present these resolutions on the floor of the House of Delegates of the said meeting.

We enjoyed those meetings, they were wonderfully instructive, and we are going to continue them.

The Vice-Speaker: This requires no action.

The Secretary: It will be placed on file.

14. KINGS COUNTY—PUBLICITY IN THE NEW YORK STATE JOURNAL OF MEDICINE

Dr. Goodrich, Kings: WHEREAS, the minutes of the Medical Society of the County of Kings show that the Medical Society of the State of New York, through its regularly authorized officials, has twice within a year refused to open the columns of its Journal to publish therein resolutions which had been regularly carried by the component Medical Society of the County of Kings, and,

WHEREAS, The membership of the Medical Society of the County of Kings feels aggrieved at this refusal to acquaint other component county societies of the alternative measure to the Webb-Loomis Medical Practice Act, and further, to its reasons for opposing the Webb-Loomis Act, and,

WHEREAS, The continuation of such an attitude would be prejudicial to the good feeling which must always exist between the Medical Society of the State of New York and the component county societies, be it

Therefore Resolved, That the Medical Society of the County of Kings hereby asks the Medical Society of the State of New York to direct the columns of its Journal be always open for the publication of resolutions adopted by county societies when requested and that on moot matters affecting the welfare of all practicing physicians of the State of New York its columns be impartially open to opponents and proponents of pending legislation.

The Vice-Speaker: Referred to Reference Committee A on New Business (Report in Sec. 28).

15. PROTEST AGAINST THE MILLER BILL AMENDING THE WORKMEN'S COMPENSATION LAW

The Vice-Speaker: Is there any other new business? If there is none, are any of the reference committees ready to report?

The Secretary: I have a letter, Mr. Speaker, just received by registered mail. I don't know what it is, but it is addressed to the Annual Meeting. Shall I read it?

The Secretary read the letter signed by the following physicians of Erie County, protesting against the Miller Bill to amend the Workmen's Compensation Law: Edward E. Haley, John V. Woodruff, M. J. Helminiak, Charles Leone, R. L. Cooley, Joseph Burke, Charles W. Bethune, William Priess, L. Edward Villaume, M. A. Sullivan, William K. O'Callahan, H. J. Hammond, Francis J. Butlak, J. M. Flannery, James E. Dolan, James P. Kinney, H. D. Duryea, W. F. Burke, L. H. Chely, M. J. Littlefield, S. A. Moore, F. J. Carr, J. C. Sullivan, J. L. Gallagher, James W. Nash, Francis Argus, Edward A. Twist, F. J. Rice, James J. Brown, Eugene J. Hanavan, W. G. Grove, Alfred Luhr, C. D. Moses, A. R. Gibson.

The Vice-Speaker: None of these men are members of the House of Delegates. It is rather doubtful as to giving it a place in our proceedings. It might be referred to one of the committees on new business.

I so move. Seconded and carried. (Report in Sec. 30).

The Vice-Speaker: Referred to reference committee B on new business.

The Vice-Speaker: Is there any other new business? If there is none, is any reference committee ready to report?

16. REFERENCE COMMITTEE ON PRESCRIPTIONS FOR ALCOHOL

Dr. Halsey: Reference Committee B on New Business, after studying the resolution regarding prescribing of spirituous liquors introduced by Dr. Chalmers (Sec. 10), recommends to the House of Delegates that action be taken as recommended in the resolutions.

Seconded and carried.

17. REPORT OF REFERENCE COMMITTEE ON THE REPORT OF THE SECRETARY, THE TREASURER, AND THE TRUSTEES, PUBLICATION OF JOURNAL AND DIRECTORY

(The reports were printed in the JOURNAL of May 1, on pages 456, 458, and 461).

Dr. Mary D. Rose: We heartily commend the efficient work of our Secretary as incorporated in his annual report. We approve of the recommendations of the Secretary that the printing of the Directory and JOURNAL be placed under our Publication Department, and that a proper Financial Deparment be formed for the same.

18. CHANNELS FOR TRANSMITTING REPORTS

We approve of the suggestion of the Secretary that all reports and official communications go through regular organized channels, and we respectfully request that all such be sent to the Society's office; and furthermore recommend that all resolutions and motions be in writing and in duplicate, one for the Reference Committee and one for the Secretary's file.

19. HONOR COUNTIES

We especially wish to emphasize our honor counties, Cayuga, Chemung, Delaware, Essex, Fulton, Greene, Lewis, Nassau, Orleans, Rockland, Schoharie, Schuyler, Seneca and Thompkins.

20. TREASURER'S REPORT

We recommend that the Report of the Treasurer be accepted as printed in the State JOURNAL.

I move the report be adopted.

Seconded and carried.

21. ELECTION OF RETIRED MEMBERS

The Secretary: While we are waiting, I move the election of the following retired members. These gentlemen have passed the age of seventy years and have been recommended by their several counties: Dr. Thomas Bagley, of Buffalo; Dr. De Lancy Carter, of New York City; Dr. Lucien Howe, of Buffalo; Dr. George H. King, of Watkins Glen; Dr. Francis J. Quinlan, of Amawalk, Westchester County. Dr. Quinlan is a member of New York County. Dr. Francis M. Rich, of Buffalo; Dr. Henry Lewis of Argyle; Dr. Marcus E. Tully, of Glen Ridge, New Jersey, a member of New York County; Dr. John E. Weeks, Portland, Oregon, also a member of New York County.

I move the election of these gentlemen, as they have complied with all the qualifications for retired membership. Seconded and Carried.

22. REFERENCE COMMITTEE ON REPORTS OF THE COUNCIL AND CENSORS

(The reports were printed in the JOURNAL of May 1, pages 460 and 461.)

The Vice-Speaker: Any other Reference Committee ready to report?

Dr. Kysor: The Reference Committee on Reports of Council and Censors unanimously endorse the report of the Council.

We also unanimously endorse the report and action of the Board of Censors.

This Commitee notes the mounting annual loss of the publication of the Directory, but make no recommendation relative to it because it has been thrashed out so many times.

I move the adoption of the report. Seconded and carried.

23. CONTROL OF COSMETICS

Dr. Douglas: Reference Committee A on New Business recommend the adoption of the resolution affecting the sale and use of cosmetics containing dangerous chemicals, (Sec. 6) and recommend that the State delegates to the American Medical Association be instructed to present the necessary resolutions at this meeting so suggested.

I move its adoption. Seconded and carried.

24. ATTENDANCE OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION

Mr. Douglas: With regard to the following resolution offered by Dr. Chalmers: (Sec. 11):

WHEREAS, in the past years one or more delegates of this Society to the American Medical Association have not attended the meetings of the House of Delegates of the American Medical Association, and

WHEREAS, the roll call of the delegates to the American Medical Association is held on the afternoon of the fourth day of the meeting of the House of Delegates of the American Medical Association for the election of officers;

Be It Therefore Resolved, that any member of this Society permitting his name to be presented for election as a delegate to the House of Delegates of the American Medical Association, pledges himself that, insofar as it is within his power, he will attend all meetings of the House of Delegates of the American Medical Association that may be held during the term for which he was elected as such delegate:

The Committee feels that it is understood when a man is elected as a delegate he expects and intends to be present at the meeting of the American Medical Association and therefore such resolution is unnecessary and is not recommended.

I move it be not recommended.

The Secretary: Point of order: You cannot recommend a negative motion. The correct motion is to adopt the report.

The Speaker: Point of order is well taken.

Dr. Douglas: I move the adoption of the report. Seconded and carried.

25. REFERENCE COMMITTEE ON REPORTS OF COUNCILLORS

(The reports were printed on page 481 of the May 1 JOURNAL.)

Dr. Bowen: Reference Committee on Reports of Councillors has examined in detail the reports of the eight District Branches. We find that an annual meeting was held by each of the Branches. The officers of the various branches have evidently pursued their labors with industry, with a conscientious regard for their positions, and with a constant loyalty to our State organization.

The following suggestions were made by our committee. In view of the fact that the meetings on the average have not been well attended, we recommend that a program varied in character to attract men practicing in general medicine and of interest and value to the general practitioner should be constructed.

Frequent meetings of the Executive Committees of each branch as recommended by the President of the Eighth District Branch, are advisable in order to stimulate more interest in these District Meetings.

I move the adoption of the report. Seconded and carried.

26. WESTCHESTER COUNTY'S RESOLUTION ON A STATE BOARD OF NURSING ADMINISTRATION

Dr. Farmer: The Reference Committee on New Business C has considered the resolution of the Medical Society of the County of Westchester (Sec. 8) suggesting the establishment of a Board of Nursing Administration quite independent of the Board of Regents.

The Committee feels that training schools for nurses are educational institutions and therefore properly belong under the direction of the Board of Regents of the State of New York, and therefore disapproves the recommendation.

The Committee respectfully suggest that the Medical Society of the State of New York request the Board of Regents to appoint an advisory committee to the Bureau of Nursing of the Board of Regents, said committee to have a representative of

(1) The New York State Nurses' Association;
(2) The Medical Society of the State of New York;
(3) The New York State Hospital Association, for the purpose of remedying evils or abuses of poor administration of that bureau which may exist.

I move the adoption of this report.

Dr. Cottis: I oppose very strongly any such action. The Committee apparently is acting under the theory that this is purely an educational question. As I understand the theory of the Westchester County, their attitude is that this is a question of dictation to us as to what nurses we may employ and on what disease we may employ them. It is a question whether this bureau in Albany can say that we shall not accept nurses from over the line in Pennsylvania or New Jersey unless the training school from which they come consent to an inspection by New York State Nursing Bureau employes.

I think the Committee has not thoroughly understood the reason back of this motion. We two years ago argued two or three hours on this question of nursing control, and I think this should be very thoroughly discussed before the report of the committee is adopted.

I would very strongly favor the action of the Westchester County Society in advocating the establishment of a bureau in which the Medical Society of the State of New York may have some interest.

Dr. Trick: It seems to me this should be taken up in two parts. It seems to me the latter part was really a different proposition, and if we might discuss it in that way it would probably simplify the proceeding.

Dr. Farmer: I move the recommendation of the first part.

The Vice-Speaker: The part of this report under discussion will be that part of the resolution from Westchester County regarding the establishment of this bureau of which the Committee does not approve.

Dr. Van Kleeck: Last year in the House of Delegates there was a ruling on nurses that each county should establish a local registry that would not replace the commercial registry that already existed, but would have supervision of all the nurses operating within that district. Such a registration should be under the control of the county society of that district. Is there any relation there to this resolution now before the House?

Dr. Dyer: The Superintendent and Directors of Nurses of Jefferson in Philadelphia and of the University of Pennsylvania Hospital told me that they wished to have their nurses registered in New York State. They made overtures to the Department at Albany. The nurses there, I might say, all have to take three years training, and not only that but have to be graduates of a high school, the standards being greater than those of New York State. Also the nurses in Philadelphia are receiving a compensation of $35 a week, and they seem to be willing to work at that rate. If those nurses would come up here in New York State it would furnish us an extra supply of nurses, and the nursing departments of these respective hospitals were willing to have them registered. But owing to various little annoying requirements from Albany, in disgust, they finally threw the thing up and have nothing more to do with it at all. I don't think we understand the pernicious influence of this department at Albany.

Dr. Farmer: I might say in presenting the second resolution, which we are now considering, we have in mind what Dr. Cottis spoke of. We thought that these things may occur—we were pretty sure they did occur.

We felt the proper way to handle the situation was to get more information for a better action at a later time, and such an advisory committee could handle that very well.

The Vice-Speaker: Does that seem to meet your idea, Dr. Cottis?

Dr. Cottis: No, it does not. I don't think the word "Advisory Committee" fills the situation, because the Bureau at Albany is not susceptible to advice from any medical men. I would suggest, if I might, if that is the purpose of the Committee, you have another committee to consider it. We have done that for three years, and we find we must have some way to subdue the bureaucracy at Albany. If you want to get at the situation and find out how we are being handicapped, that is different. I would suggest that "Advisory Committee" be "Investigating Committee."

The Secretary: The Speaker requests me to state that he wishes this to be taken from the committee to which it was referred, and referred to the Reference Committee on Nursing, so that the whole question can be thrashed out by that committee. I so move. Seconded and carried. (See Sec. 40 and 41.)

27. REFERENCE COMMITTEE ON COMMITTEE ON SCIENTIFIC WORKS

Dr. Bedell: Reference Committee on Report of Committee on Scientific Work has considered the report in question and recommends the excellent program arranged. Your committee approves the report and moves its adoption. Seconded and carried.

A twenty-minute recess was then taken.

The Vice-Speaker: Is there any reference committee ready to report?

28. Reference Committee on Publicity in the State Journal

Dr. Douglas: The Committee on New Business A recommends that the resolution in regard to publicity in the State Journal (Sec. 14) be referred to the new committee for the revision of the Constitution and By-laws, for incorporating in same such safeguards of the rights of the County Societies to publicity in conformity with the interests of the State Society.

I recommend its adoption. Seconded and carried.

29. Reference Committee on Report of Committee on Public Health and Medical Education

(The report was printed on page 464 of the May 1, Journal.)

Dr. Henry S. Patterson: Reference Committee on Report of Committee on Public Health and Medical Education, desires, first, particularly to draw attention to the broad field of this committee's endeavor as shown by the wealth of subjects covered, and, second, to the many counties of the State in which instruction has been given.

The report shows in a graphic way the subjects and the territories involved and speaks eloquently for itself.

Your reference committee wishes to emphasize the point made in the report under consideration that the medical profession is the agent that is and should be present in all public health activities, and without its cooperation such movements, no matter how worthy, are robbed of their real effectiveness. As an example of the applicability of this principle, your reference committee draws attention to the excellent work done by the Committee on Public Health and Medical Education in fostering the campaign for immunization against diphtheria by toxin, anti-toxin, and we maintain that if, in certain districts the results have not reached expectations, it is due to the lack of initiative on the part of individuals, in spite of the stimulus given by this committee. In corroboration of this opinion we draw attention to the statement of the report that in only a small minority of counties has a definite program against diphtheria been adopted. Your reference committee is fully aware of the necessity for press cooperation, and entirely approves of any such activity as has been carried out by the Committee on Public Health and Medical Education. It makes the plea that any communications on medical subjects to the lay press be made only with the knowledge and consent of the accredited authorities of national, state or county associations.

In specially commending the work of the Committee on Public Health and Medical Education, the hearty cooperation of the State Department of Health, the Medical Society of the County of Kings, and the sixty-five members of this society who have carried out the instruction at great personal sacrifice, I move the adoption of this report. Seconded and carried. (Sec. 49.)

30. Protest against the Miller Bill Amending the Workmen's Compensation Law

Dr. Halsey: Reference Committee on New Business B has considered the "Letter of Protest" from the County of Erie (Sec. 15) and recommend that it be laid on the table.

The Secretary: The Speaker rules it would be out of order.

Dr. Halsey: The Committee recommends it be laid on the table. I know of no other way a reference committee can act than by a recommendation. Seconded.

The Speaker: The motion to lay it on the table is out of order when recommended as the report of the Committee.

Dr. Halsey: The matters contained in that communication are of such a nature that it is not a matter for this House to do other than to simply lay it aside. The matter is not framed in such a way that the committee can make a recommendation that it be denied or concurred in, or not concurred in, unless we take it up seriatim and that seemed unwise, as there are no matters that the committee could in any way favor. It is outside the province of this organization, to discuss them, unless the report is desired to be read and discussed article by article.

The Speaker: Referred back to the Committee for reconsideration. (See Sec. 42.)

31. Reference Committee on Report of Committees on Medical Economics, Heart Diseases and Public Relations

Study of Heart Diseases

(The report was printed on page 468 of the May 1 Journal.)

Dr. Winslow: Reference Committee on the reports of the Committees on the Medical Economics; Special Committee on Heart Diseases and the Committee on Public Relations. A resolution authorizing the appointment of a Special Committee to study diseases of the heart: (Sec. 51.)

Whereas, compilers of vital statistics have noted with concern for a number of years a marked increase in the number of deaths attributed to diseases of the circulatory system, and

Whereas, the mortality from most infectious diseases is greatest in the early and late periods of life, while the mortality from heart disease is greatest in the prime of life, and

Whereas, during 1925, in the State of New York, more deaths were reported under this general group than from any other, not excepting, even, the group of endemic, epidemic and infectious diseases, in which are included tuberculosis, cancer, diabetes mellitus, diphtheria and all infectious diseases of childhood. The total number of deaths reported during the year was 142,426, of which 36,184, or 25 per cent., belonged to the first group and 35,754 to the second group. From diseases of the heart alone, the death rate in 1925 was 268.9 per 100,000, an increase of 20.8 over the average annual death rate in the five preceding years And from diseases of the arteries, the death rate in 1925 was 51.4 per 100,000. an increase of 4 deaths per 100,000 over the annual average for the five preceding years, and

Whereas, the physicians, members of this Society, have been doing their utmost individually to stem this rising death rate from circulatory diseases, and

Whereas, a special committee of nine members, eminently qualified through scientific training and clinical experience has, during the last year, entered upon a study of the situation in this State and has prepared a comprehensive plan for further investigation.

Be It Therefore Resolved, that this special committee as constituted, be authorized to continue its study during the coming year in accordance with the plan submitted, and

Be It Further Resolved, that the Board of Trustees be recommended to set aside an appropriation sufficient to meet the necessary expenses of the committee's operation in that time.

I move the adoption of this resolution. Seconded.

Dr. Bedell: I rise for some information. I note in the committee's report it says a sufficient sum. Just before I left home I read in my daily paper this House of Delegates was going to allow the sum of seven thousand dollars for this committee. If a single committee of this House is to be allowed seven thousand dollars, I do believe we should know something about the committee's work. Now, that does not cast any aspersion on any member of the committee. It is simply a new thing for any committee in this House to be granted a large sum of money of that sort, and I think we would like the chairman of this committee to give us some information

Dr. Halsey: The study of the problem of heart diseases requires the study of two phases of public life.

In the first place, mortality, the figures of which are relatively easily obtained, and which we have requested, is of a relatively small amount—it means getting the figures from the Department of Health at Albany and tabulating those in such a way as to get matter that is of value in the consideration of the problems. That is the chief part of the work.

The next most important phase of the work is the one on morbidity. There are no figures or data to be obtained on morbidity excepting in very small groups of individuals, that is, school children, a few in industries, a few in insurance, and a few other small groups. None of them carry the consideration of all-age groups.

To get those facts it will mean the expenditure of considerable funds and of considerable time. It will probably take the best part of next year to gather any information of value on that. It means the adoption of the criteria as to what we are just going to mean by heart disease, the various kinds, ileological factors, and so on, all of which will mean time and money because you know very well that no physician can do that work; you have to get skilled workers who are able and properly trained to go into hospitals and to go wherever the information may be obtained. That has not altogether been worked out as to how we can get those facts. Money will not be spent unless we can be sure we are going to get facts commensurate with the outlay, and present that to you as soon as it can be done. That is the expensive part of the work and will require not only the work of this State committee and of the State problems, but of as many outside agencies as we can get to cooperate with us. I might say here that all the State groups that have to do with public health or hospitals have been very cooperative with this committee and have given us a great deal of assistance in gaining the information that we have been able to gain so far, and they will continue to help us get information as soon as we can outline a plan for that work.

Dr. Higgins: I think Dr. Bedell is right in drawing attention to the fact that no committee, no matter how eminent its members, should be given a free hand in spending money, and I think before adopting this resolution I would move this committee be limited to a certain sum of money, or not to exceed a certain sum of money.

The Vice-Speaker: We recommend to the Board of Trustees an unspecified amount.

Dr. Phillips: Dr. Bedell's question is a perfectly proper one, but the best answer to it is that last year we established a Board of Trustees, men in whom we have confidence, and I think we are perfectly safe in trusting the Board of Trustees as to any appropriations that are made, that they will be adequate and not be excessive. It seems to me that it has very little to do with the adoption of this report because all finances are referred to the Board of Trustees.

The Secretary: I would also like to call attention to the By-laws which distinctly state that all appropriations must be made by the Trustees. We cannot recommend anything as a House of Delegates to them positively with the idea they will carry it out. They may say, "No, this work cannot go on, and we won't give you five cents," and the House of Delegates, the Council or no other body can object to it. It is entirely in the hands of the Trustees.

Dr Bedell: We are delegates sent by our County Society. It would certainly seem right and proper that we as delegates should be informed as to how their money is spent. It is not a question whether our Board of Trustees spends the money. It is a question that this is the first time that this Society, acting under the Board of Trustees, has appropriated this unknown sum of money. I think, gentlemen, as a whole, you will agree it is a fair proposition that we should know what our Trustees are doing. I see nothing in here that tells us our Board of Trustees have made recommendations of this, that or the other sum of money. As stockholders in any concern, we would have a report.

After further discussion by Drs. Mabbott, Bedell and others, the report of the committee was adopted.

32. Establishment of a Committee on Public Relations

(The report is printed in the Journal of June 1, page 621.)

Dr. Winslow: The resolution authorizing the creation of a standing committee on Public Relations.

Whereas, effective practice of preventive medicine requires harmonious cooperation of the medical profession and interested agencies both official and voluntary and many new situations and conditions are continually arising in whose solution there may be differences of opinion, and

Whereas, it has happened that where no opportunity was afforded for mutual or common consideration of the methods employed in promoting programs of preventive medicine or public health that occasionally much time and energy have been lost through misunderstanding and criticism by some, of the plans of others, and

Whereas, it has been found that many times such criticism has resulted from ignorance on one, or on both sides, of the plans, purposes and objections of the other, and

Whereas, it has also been found that where some such problems have been considered in conference, harmony in procedure was not difficult to attain, therefore,

Be It Resolved, that there be created by the House of Delegates a permanent standing committee of five members and the executive officer member ex officio, to be known as the Committee on Public Relations and that it shall be the function of such committee to deliberate with other agencies both official and unofficial concerning the plans, purposes and objectives of their organizations insomuch as they have a relation to the medical profession, and

Be It Further Resolved, that each County Society be recommended to name a committee of its members for a similar function in its district.

I move the adoption of this resolution. (Sec. 50.)

The Secretary: It is an amendment to the Constitution and By-laws.

The Vice-Speaker: Yes, it must be referred to this committee.

The Secretary: And also be accepted as notification of an amendment.

Dr. Winslow: I move we approve it and refer it to the Committee on Revision of Constitution and By-laws. Seconded.

Dr. Jenkins: You mean to approve the creation of another committee?

The Vice-Speaker: Yes, a standing committee known as the Committee on Public Relations. Motion carried.

33. Demonstration Clinic in Periodic Health Examinations

Dr. Winslow: Reference Committee on Report of the Committee on Medical Economics has studied the report and recommends that the House of Delegates approve the establishment of a Demonstration Clinic in different parts of the State in order to determine the value of the plan. We also recommend that a course of instruction in physical examinations be added to the curriculum of schools of medicine in this State.

I move the adoption of this resolution. Seconded and carried.

34. Representative in the Compensation Conference

Dr. Winslow: Your committee recommends that the House of Delegates approve the appointment of a representative from the State Medical Society to the Compensation Conference.

I move the adoption of this resolution. Seconded.

Dr. Bedell: What is his power?

Dr. Winslow: That is contained in the report of the Committee on Medical Economics.

Dr. Bedell: I move you, sir, the Chairman of this committee read that part for the edification of us all.

The Vice-Speaker: Will you read that part referring to the suggested appointment?

Dr. Winslow: "A Compensation Conference composed of heads of various insurance companies; a delegate from the Medical Society of the State of New York; a delegate from the State Society of Industrial Medicine and representatives of labor organizations, was formed in January as the result of a preliminary meeting called by the State Industrial Survey Commission."

A Delegate: I recommend an amendment as follows: that the delegate be instructed to report to the House of Delegates.

Seconded.

The Vice-Speaker: The original motion was that we appoint a delegate to this Conference.

Motion carried.

35. County Health Units

Dr. Winslow: Based on recent experience in certain counties as to the advantage of a County Health Unit it is recommended that the Medical Society of each County where no Health Unit yet exists, organize a committee to study the question in its County and to take the initiative in planning, organizing and supervising such County Health Unit in cooperation with the State Society.

I move the adoption of this resolution.

The Secretary: That should not take in the five counties in the City of New York as the City Department of Health is an entirely separate unit. It would be impossible in those five counties.

Motion seconded and carried.

36. District Branch Field Secretaries

Dr. Winslow: Your Committee finds the duties of officers of several County Medical Societies and District Branches are multiplying and require increased clerical assistance beyond the financial means of County Medical Societies. We therefore recommend that each District Branch consider the advisability of employing a field secretary to execute detail work of component county societies of each district.

I move the adoption of this resolution.

Dr. Trick: That would necessitate the change of the By-Laws again.

The Secretary: We cannot do that until there is an amendment to our Constitution and By-Laws.

The Vice-Speaker: I suggest this be referred to the committee on Constitution and By-Laws.

Dr. Winslow: I will make that motion.

Seconded and carried.

37. Reference Committee on Report of Committee to Study the Laws on Workmen's Compensation

(Report printed on page 475 of May 1 issue of Journal.)

Dr. Winslow: Your Committee on the report of the Special Committee to study the laws on Workmen's Compensation report as follows:

We have considered the report of this special committee and we recommend that the Society endorse by adoption the plan laid down in the proposed Workmen's Compensation Medical Procedure Act. That Act was permissive in all its organization detail and mandatory only wherein it related to these special administrative details that bade fair to bring the Profession into disrepute, such as conflicts of medical testimony and kindred subjects.

I move the adoption of this resolution.

Seconded.

The Vice-Speaker: All those in favor of adopting the report of this Committee, say Aye. Opposed, No. I am in doubt; we will have to have a standing vote.

A standing vote resulted in Ayes, 44; Noes, 53.

38. Women's Auxiliary Association

Dr. Fisher, President: We have with us two distinguished visitors, a lady from Pennsylvania and a lady from Texas, who are anxious to inaugurate a Women's Auxiliary in the State of New York, and if it is agreeable I would ask permission of the House that they may have a few moments to explain the work.

Dr. Phillips: Before Mrs. McReynolds, who is the President of the American Medical Women's Auxiliary Association, takes the floor, and Mrs. Babcock of Pennsylvania, who has made such a success of the Women's Auxiliary work in the State of Pennsylvania, I wish to say to this House that the work of the Women's Auxiliary members of this Association has met with the approval of the officials of the American Medical Association.

I sincerely hope that the resolution which will follow the few remarks which they have to make will meet with the approval of this Society.

Mrs. William Wayne Babcock and Mrs. John O. McReynolds then addressed the House.

Dr. Fisher: One more innovation that your retiring president would like to make:

Resolved, That the House of Delegates of the Medical Society of the State of New York, first, endorse the organization of the Women's Auxiliary in the State; second, that the delegates will urge the County Presidents to further the organization in their various counties; third, that the individual members make clear to their wives the wonderful opportunity of aiding the medical profession through the organized efforts of the Auxiliary.

I move you, Mr. Speaker, that this be referred to a committee.

The Vice-Speaker: The regular procedure would be that it be referred to one of the reference committees on new business, but I think if you desire we might suspend the By-Laws by two-thirds vote and take immediate action.

Dr. Fisher: I move the By-Laws be suspended.

Seconded and unanimously carried.

The Vice-Speaker: Now with regard to the resolution presented by President Fisher.

Motion made, seconded and carried.

39. Member of Industrial Conference Committee

Dr. Kopetzky: On new business, I move you, since we have decided the Society shall be represented, that Dr. Britt be our nominee to represent us on the Industrial Conference Committee.

The Vice-Speaker: The only way to make that action legal is to again suspend the By-Laws.

Dr. Kopetzky: This is not an amendment; it is a resolution. Your reference committee has reported. I am making a motion for which the resolution was an enabling act.

The Vice-Speaker: All those in favor of the appointment of Dr. Britt on this Special Committee?

Motion seconded and carried.

40. Reference Committee on Report of Special Committee on Nurses

(Report in May 1 Journal, page 470.)

Dr. Jewett: Reference Committee on Report of Special Committee of Nurses endorses the following recommendations:

1. The establishment of official nurses' registries in every county of this State.
2. That every county society develop plans for the official approval of registries which meet satisfactory standards to be erected by the county society.
3. Sincere efforts toward co-ordination of all nursing services in each county.

4. Endorsement and encouragement of visiting nursing service.

5. Thorough trial by all of the members of the Medical Society of the State of New York, of hourly or part-time nursing with broad publicity of its methods and possibilities.

6. Group nursing in hospitals.

7. That the period of training be twenty-eight months, the first four to be devoted to concentrated study of fundamental anatomy, bacteriology, physiology, chemistry and dietetics, and that the succeeding two years be devoted as far as possible to teaching the art of nursing by demonstration, participation and practice.

8. That a committee be formed to study the curriculum, the committee to be composed of three physicians appointed by the President of the Medical Society of the State of New York, three nurses appointed by the New York State League for Nursing Education, and one representative of the Department of Education who shall be neither physician nor nurse.

I recommend the adoption of this report.

Seconded and carried.

41. Westchester County Resolution on a State Board Nursing Administration

Dr. Jewett: The resolution of the Medical Society of the County of Westchester referred to committee on new business C was then referred to the Special Committee on Nursing.

It is the sense of this committee that the spirit of the resolution presented by the Medical Society of the County of Westchester (Section 8), is embodied in the findings of the committee, suggested under recommendation number 8, and we also advise that the Medical Society of the County of Westchester continue their efforts toward a solution of their local problems.

I move the adoption.

Seconded and carried.

42. Protest Against the Miller Bill

Dr. Halsey: Reference Committee on New Business B has considered the "Letter of Protest" from the County of Erie (Secs. 15 and 30), and believe it to be a matter for action of the County Society and not for the House of Delegates, and therefore recommend that the communication be placed on file.

I move the adoption of this report.

Seconded and carried.

43. Reference Committee on Report of Legal Counsel

(Report in May 1 Journal, page 478).

Dr. Kevin: Reference Committee on Report of Legal Counsel finds that the report of legal counsel with its various and numerous activities has been concisely and splendidly presented, which permits your committee to add but little to the presentation of the report. There are no recommendations requested. There are some factors, however, which your committee feels may be emphasized.

Aside from the legal cases which come before the legal counsel in the usual proportion of suits to an insured membership of a little over six thousand, his activities in aiding the Society from other angles are impressive. From the editorial standpoint he has given a digest of numerous malpractice cases through our Journal besides giving at least seventeen editorial comments on live questions relative to "quacks" and illegal practitioners. His advice to the officers of the Society has been frequently given; his appearance at Albany at the hearing of all the important legislative questions and his visitations to a great many of the county societies throughout the State manifest to your committee that his heart is in his work and his enthusiasm has been exercised in the largest degree. Your committee is of the opinion that our selection and retention of the legal counsel has been wise and profitable.

Your committee is also impressed with the report on the Group Liability Plan and the excellent work which has been accomplished through our insurance representative, Mr. Harry F. Wanvig. We desire to take this opportunity to call attention to the fact that only about 56 per cent of the membership has taken advantage of this excellent Group Liability Plan and we recommend that efforts be made in the way of propaganda in the county medical societies with a view to reaching and explaining the benefits of our Group Liability Plan.

I move the adoption of the report.

Seconded and carried.

44. Reference Committee on Report of the Committee on Legislation

(Report printed in May 1 Journal, page 478).

Dr. Townsend: Your Reference Committee on Report of the Committee on Legislation heartily commend the work of that body during the past year. We particularly congratulate them for their success in preventing legislation inimical to the public health and the practice of medicine.

We especially approve of that portion of the report referring to the administration of the Medical Practice Act and physiotherapy.

Your reference committee heartily endorses and hopes for a continuance of the close contact maintained between the State Legislative Committee and the Officers and Committee Chairman of the various County Societies.

We wish to emphasize those paragraphs expressing thanks and appreciation to legislators, State Departments, and representatives of philanthropic bodies for their cooperation with the Committee on Legislation.

We furthermore emphasize the tribute paid to our executive officer, Dr. Joseph S. Lawrence, for his untiring activities on behalf of our society.

I move the adoption of this report.

Seconded and carried. (Sec. 60.)

Dr. Britt: I would like to ask about this letter referred to Reference Committee B on New Business, this letter that comes from Erie County, does it go into the printed report of this House of Delegates?

The Secretary: No; filed in the Secretary's office, that is all.

45. Reference Committee on President's Report Investigations by the Board of Trustees

(The President's Address was printed on page 451 of the May 1 issue of this Journal.)

Dr. Hicks: Reference Committee on the President's Report, endorse the suggestion that the Board of Trustees be authorized to provide means for informing itself from time to time concerning the expenditure of funds they have appropriated.

Dr. Kopetzky: I move the adoption.

Seconded and carried.

46. Names of District Branches

Dr. Hicks: 2. Adverting to changing the names of the District Branch Societies to District Medical Societies, this recommendation seems to be unnecessary so far as it relates to changing the names from District Branch to District Medical Societies. It would perhaps be confusing to many and its advantages not apparent, as some members might get the impression that the District Medical Society would represent a distinct organization independent of the State Medical Society and its component County Societies. However this might be left to the District Branch Societies for further consideration.

Dr. Trick: I believe it is a question of organic law. It cannot be done.

Dr. Hicks: Then I won't refer to that.

47. District Branch Conferences

3. Your committee is in accord with the suggestions that the President of the District Branch Societies fre-

quently confer with his executive officers and the Presidents of the component County Societies in advancing the interests of the component County Societies and their respective district branches.

I move the adoption. Seconded and carried.

48. Expenses of District Branches

Dr. Hicks: 4. Your committee urges the adoption of the constitutional amendment deleting the one hundred dollar appropriation for District Branch Annual meetings and recommends the amount of such appropriation be left to the judgment of the trustees.

The Vice-Speaker: That is out. (Sec. 59.)

49. Graduate Instruction

Dr. Hicks: 5. We endorse the sentiments of the President concerning County Society Post Graduate Instruction and the operation of the Medical Practice Act.

I move the adoption. Seconded and carried. (Sec. 29.)

50. County Committees on Public Relations

Dr. Hicks: 6. We endorse the recommendations of the President that each County Society appoint a committee known as the Committee on Public Relations unless such committee already exists and that another standing committee on Public Relations be created in the State Society. (Sec. 32.)

I move the adoption. Seconded and carried.

51. Heart Committee

Dr. Hicks: 7. We recommend that the Heart Committee be authorized to continue the work for another year. (Sec. 31.)

I move the adoption. Seconded and carried.

52. Tri-State Conference

Dr. Hicks: 8. Concerning the 'Tri-State Conference," your committee endorses the recommendations of the President.

I move the adoption. Seconded and carried.

53. Conference of County Secretaries

Dr. Hicks: 9. Your committee heartily endorses the suggestion that the executive officer call a conference of the secretaries of the County Societies annually.

The Secretary: I would like to know why the executive officer should usurp the office of the secretary. The President says here he merely suggests, and most of these you will notice in Dr. Fisher's report that you are adopting as recommendations, are not recommendations; they are suggestions. Dr. Fisher does not want to make positive recommendations of this kind, knowing that if he asked that a recommendation be adopted we would out of sympathy and courtesy and fraternal friendship pass the motion. But here it says the executive committee authorizes the secretary and the executive officer. Of course the secretary has charge of those matters and the executive officer works with him. This is merely a suggestion and is not a recommendation and I do not think it should be in the report.

The Vice-Speaker; It is always done anyway.

Dr. Hicks: Shall we leave that out?

The Vice-Speaker: Yes, leave that out.

Dr. Hicks: Number 9 is eliminated.

54. New York State Journal of Medicine

10. Your committee joins the president in congratulating the State Society on the improvements noted in the New York State Journal of Medicine.

I move the adoption. Seconded and carried.

55. President's Expenses

Dr. Hicks: 11. Your committee is convinced that the expense allowance of the President of the State Society is totally inadequate and should be increased.

The Committee did not make any definite recommendation as to that. It leaves it up to the House of Delegates.

Dr. Fisher: I might say that is only a suggestion. Personally it does not make a bit of difference to me. But you may run against a president who cannot see his way clear to take the interest which the State Society would like to have. I do not think it is an exorbitant amount that is required. The per diem is ten dollars and railroad expenses. Those of you who have traveled any know in these days ten dollars will not pay the expenses of a man traveling first class, and in fact this is part of your By-Laws, and for that reason I would suggest that you approve the report and refer it to the new committee on Revision of the Constitution and By-Laws.

I move that this matter be referred to the Council. Seconded and carried.

56. Deaths of Past Presidents Campbell and Jones

Dr. Hicks: 12. Your committee joins the President in his expressions of sorrow in the deaths of Dr. Owen Elon Jones and Dr. William Francis Campbell and wishes to emphasize the great loss this society has sustained in the deaths of these two ex-presidents.

I move the adoption. Seconded and carried. (Sec. 2.)

57. Commendation of President Fisher

Dr. Hicks: Your committee wishes to express great satisfaction for the able manner in which the President has conducted the affairs of the society during the past year and feels that the society is to be congratulated on his devotion to the Society's interests at great personal sacrifice.

I move the adoption. Seconded and carried.

Upon motion, duly seconded and carried, the meeting adjourned to reconvene at eight o'clock in the evening.

Evening Session, Monday, May 9th, 1927

The meeting was called to order by the Vice-Speaker at 8:45 o'clock P. M.

The Vice-Speaker: Is there any reference committee that has not reported? If there is none, the next order of business is unfinished business. Is there any unfinished business, Mr. Secretary?

The Secretary: The amendments to the By-Laws.

58. Amendments to the By-Laws
Election of A. M. A. Delegates

The first amendment, Mr. Speaker, is the amendment to Section 17—Second line, after the word "elected" insert the words "in the calendar year preceding the meeting of the House of Delegates to which they are elected."

That, Mr. Speaker and gentlemen, was offered as an amendment in order to obviate such a condition as we find ourselves in tonight. We have tomorrow morning to elect seven delegates to the House of Delegates of the A. M. A., which meets next Monday, and according to their by-laws we should have had the names of those delegates in Dr. West's possession three days ago. I saw Dr. West in Chicago and he said if we telegraphed them immediately in the morning after election it would be all right, but of course they are not printed in the bulletin of the little handbook of the A. M. A. that is given to the delegates. This amendment will allow us to elect our delegates tomorrow and then elect the second class. What I mean to say is, tomorrow, in the usual order of things—I am taking the place of the Speaker in explaining this because he has asked me to use my voice instead of his—we elect tomorrow the men for 1927-1928. By passing this amendment is would allow us to vote also for those for 1928-1929. In that way this House of Delegates could meet any time in the year that it wished, irrespective of the A. M. A.'s House of Delegates meeting. We would always be a year ahead and if we wanted to meet in July or June we could do so and we would not have to have a rush meeting.

I move the adoption of the amendment. Seconded and carried.

59. Expenses of District Branches

The Secretary: The next is to amend Section 45—"Be amended as to $100 per annum being insufficient for the District Branches."

Now that is very indefinite in its wording. It is not really in the shape of an amendment, and I move, Mr. Speaker, that that be referred to the Committee on Revision of Constitution and By-Laws—that will be appointed by the President. There has already, of course, been a reference to it in the President's report, and that was referred; so I move that this amendment be referred to the committee on revision of Constitution and By-Laws.

The Speaker thinks that perhaps we ought to pass this so that it would be a little elastic for this year, and we might allow them more than a hundred dollars; but I think, Mr. Speaker, the wording should be different.

Dr. Kopetzky: The appropriation of moneys is in the hands of the Trustees, as I understand.

The Speaker: We have a limit of $100 as provided in Section 45 of the By-Laws. That limit should be removed in the interest of the District Branches. Amendment to Section 45 strike out the words "Not to exceed one hundred dollars per annum."

Dr. Kopetzky: We are satisfied with that.

The Secretary: I move the adoption. Seconded and carried. (Sec. 48.)

60. Committee on Legislation, Restrictions on

The Secretary: The next amendment was an amendment to Section 54, but that was erroneous because in the meantime it was taken from our old by-laws; the section became 57. So it is an amendment to Section 57. "Committee on Legislation." Following the last line, add the words, "It shall not present to the Legislature of New York State or sponsor legislation affecting medical practice until approved by the House of Delegates."

A Delegate: I move the adoption. Seconded.

The Secretary read a letter from Dr. Shaw to the House of Delegates, giving reasons why this amendment should not be adopted.

Dr. Chalmers: I want to endorse heartily all that has been said in Dr. Shaw's letter. It seems to me it would be suicidal to require that any legislation to be endorsed by the Legislative Committee should first have the endorsement of this House. The House is not in session except once a year. It has an Executive Committee and Council. It seems to me that to pass this resolution would simply mean you hamper your legislative committee.

The Vice-Speaker: If there is no further discussion, those in favor of adopting this amendment say Aye. Opposed, No. It is lost. (Sec. 44.)

61. District Branch Boundaries

The Secretary: Now, there is an amendment to the Constitution. Article XI. District Branches.

It redistricts the branches by changing the counties in the different branches.

First District shall include the Counties of Bronx, Dutchess, New York, Putnam, Rockland, Sullivan Ulster, Westchester.

Second District shall include the Counties of Kings, Nassau, Queens, Richmond, Suffolk.

Third District shall include the Counties of Albany, Columbia, Greene, Montgomery, Rensselaer, Schenectady, Schoharie.

Fourth District shall include the Counties of Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington.

Fifth District shall include the Counties of Herkimer, Jefferson, Lewis, Madison, Onondaga, Oneida, Oswego, St. Lawrence.

Sixth District shall include the Counties of Broome, Chemung, Chenango, Cortland, Delaware, Otsego, Tioga, Tompkins.

Seventh District shall include the Counties of Cayuga, Livingston, Monroe, Ontario, Schuyler, Seneca, Steuben, Wayne, Yates.

Eighth District shall include the Counties of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming.

There is an objection in the report of the Sixth District Branch. It says that if passed as proposed it would take Schuyler and Steuben from the Sixth District. Both counties object to this change and prefer to remain in the Sixth District, and there is a letter from the Secretary of Steuben County saying some of the members of the County Medical Society would like to have the County Medical Society included in the Seventh instead of the Sixth.

The Vice-Speaker: Do you desire to move the adoption of these?

The Secretary: I move the adoption in order to bring it before the House.

Seconded.

Dr. Schiff, Clinton: On behalf of the Fourth District Branch, on the part of the counties representing this branch, we believe it is extremely unfair to the Fourth District. It removes the only populous counties in our district and attaches them to a populous district, the Counties of Montgomery and Schenectady, and would leave the Fourth District with almost entirely a rural population, a rural territory, only Glens Falls and Plattsburg having the status of cities. Considering that fact and the objection already registered in the Report of the Councillor of the Sixth District Branch, it is my belief this should not be passed, and, Mr. Speaker, I would move, if I am in order, that this redistricting amendment of the Constitution be referred to the committee which has already been provided for in regard to revision of the Constitution and By-Laws. I would say further that to my knowledge the proposition that involved our district was not put up to the District Branch as a whole, nor to the County Society, and I believe that when this redistricting is done a personal communication from the committee in charge of it to each county society involved, at least, should be made. I therefore—if that is an amendment, if I am in order, move that it be referred to the Committee on Revision of the Constitution and By-Laws and they communicate with the counties.

The Secretary: I accept the amendment.

A Delegate: I move the amendment.

Seconded.

The Vice-Speaker: The motion as it stands now is that these changes be referred to the new committee on Revision of Constitution and By-Laws.

Seconded and carried.

62. A. M. A. Communication on Alcohol and Narcotics

The Secretary: I have a communication from the American Medical Association in regard to the needed safeguards in the promulgation of regulations under the National Prohibition Act and the Harrison Narcotic Act. I move the adoption of these resolutions.

Seconded.

The Vice-Speaker: The regular order of business would require reference of this resolution to a reference committee. If it meets with the approval of the House we will abolish such reference and discuss it in open meeting.

Dr. Phillips: I so move.

Seconded.

The Vice-Speaker: Is there any further discussion?

If there is none, all those in favor of the adoption of this resolution make it manifest by saying Aye.

Carried.

63. Invitation from the Mayor of Toronto

The Secretary: I have a communication from the Mayor of Toronto, and with your permission, I don't believe it is necessary to read it. The Mayor invites the delegates to visit Toronto and tells you what you can see there.

The Vice-Speaker: This does not require any formal action. If there is no other business to come before the House, a motion to adjourn will be in order.

Dr. Kopetzky: I move you, sir, we adjourn to reconvene to-morrow morning at 9:30.

Dr. Hubbard: Before we adjourn, we have a very distinguished gentleman from Albany with us, and I would like to have a few words on the Medical Practice Act from Dr. Augustus Downing.

Dr. Downing addressed the meeting.

Dr. Kopetzky: I move this House of Delegates extend our heartfelt thanks to Dr. Downing for his efforts in helping us to the Medical Practice Act and our good wishes for his future. Seconded and carried.

The Vice-Speaker: There is a motion before the House. Will you state your motion again, Dr. Kopetzky?

Dr. Kopetzky: I move we adjourn to reassemble for regular business at 9:30 tomorrow morning.

The meeting then adjourned to reconvene Tuesday morning at 9:30 o'clock.

ADJOURNED SESSION OF THE HOUSE OF DELEGATES

Tuesday, May 10, 1927

The meeting was called to order by the Speaker at 9:30 A. M.

64. Roll Call

The Speaker: The Secretary will call the roll.

The Secretary called the roll and the following delegates responded:

Arthur J. Bedell, William P. Howard, Thomas W. Jenkins, Chauncey R. Bowen, Nathan B. Van Etten, Edward R. Cunniffe, Cornelius J. Egan, Vincent S. Hayward, Isidore J. Landsman, Edward C. Podvin, Clarence Smith, Edmund E. Specht, Frank M. Dyer, George S. Lape, Edgar Bieber, George W. Cottis, Reeve B. Howland, George D. Johnson, Leo F. Schiff, Charles L. Nichols, R. Paul Higgins, C. Knight Deyo, William A. Krieger, Aaron Sobel, W. Warren Britt, Russell Wilcox, George R. Critchlow, Robert De Ceu, H. P. Hourigan, Baldwin Mann, Charles L. Davis, Alton B. Daley, Arthur W. Albones, Norman L. Hawkins, Elias H. Bartley, Thomas M. Brennan, George A. Clark, Roger Durham, Charles H. Goodrich, Edwin A. Griffin, Ralph F. Harloe, John E. Jennings, William A. Jewett, J. Richard Kevin, Howard T. Langworthy, Carl H. Laws, Walter D. Ludlum, Joseph W. Malone, John J. Masterson, William C. Meagher, Binford Throne, Charles E. Scofield, Alec N. Thomson, Emil Goetsch, Harvey W. Humphrey, Samuel H. Raymond, Charles R. Barber, James P. Brady, Joseph P. Henry, Willard H. Veeder, Floyd S. Winslow, Horace M. Hicks, Gustave A. Fensterer, Louis A. Van Kleeck, Milton A. Bridges, C. Ward Crampton, John Douglas, Walter T. Dannreuther, Robert H. Halsey, David E. Hoag, Ward B. Hoag, S. Dana Hubbard, Peter Irving, David J. Kaliski, Henry Keller, Meyer Robinson, Lawrence K. McCafferty, J. Milton Mabbott, Henry S. Patterson, William M. Patterson, James Pedersen, Malcolm C. Rose, Mary D. Rose, Frederic E. Sondern, Terry M. Townsend, Louis Tulipan, Lazarus W. Zwisohn, Frank Guillemont, Frederick J. Schnell, Andrew Sloan, Thomas P. Farmer, Albert G. Swift, Frederick S. Wetherell, Homer J. Knickerbocker, Joseph B. Hulett, Frank E. Fox, Ray D. Champlin, Carl Boettiger, Thomas C. Chalmers, Henry C. Courten, L. Howard Moss, Ernest E. Smith, Arthur G. Whelan, James H. Flynn, John H. Reid, Enrico C. Soldini, George A. Leitner, W. Grant Cooper, Carl R. Comstock, Stillman S. Ham, Dudley R. Kathan, Albert W. Ferris, Robert M. Elliott, Leon M. Kysor, Herbert B. Smith, William H. Ross, Frank Overton, Luther C. Payne, A. Max Fisher, Luzerne Coville, Frank L. Eastman, Morris Maslon, Lucius H. Smith, William H. Cantle, Harrison Betts, George B. Stanwix, Ralph T. Todd, Edward W. Weber, William R. Thomson, Le Grand A. Damon, Fred G. Jones, Howard D. MacFarland.

The following officers, trustees, and chairman of standing committees were present:

George M. Fisher, James E. Sadlier, E. Eliot Harris, Harry R. Trick, John E. Jennings, George M. Cady, Daniel S. Dougherty, Howard Gillespie Myers, Charles Gordon Heyd, James Pedersen, John A. Card, Joseph S. Thomas, Charles P. McCabe, Horace M. Hicks, Charles D. Post, Claude C. Lytle, George W. Cottis, Samuel J. Kopetzky, Frederick J. Schnell, W. Warren Britt, Frederick H. Flaherty, Nathan B. Van Etten, Grant C. Madill, William H. Ross, Arthur W. Booth.

The following ex-presidents and ex-secretary were present:

Charles Stover, Wendell C. Phillips, Grant C. Madill, J. Richard Kevin, Arthur W. Booth, Orrin Sage Wightman, Nathan B. Van Etten, Edward Livingston Hunt.

The Speaker: A quorum is present. I will now call upon the President to introduce the President of the American Medical Association, Dr. Phillips.

Dr. Phillips addressed the House.

The Speaker: I shall ask the President of the Society to introduce Dr. William Allen Pusey, ex-President of the American Medical Association.

Dr. Fisher introduced Dr. Pusey who addressed the House.

65. Election of Officers

The Speaker: Preliminary to the election of officers, Chairmen of Committees and delegates to the American Medical Association, a few statements will be made by the Secretary.

The Secretary: First, Mr. Speaker and gentlemen, I would like to state that Dr. Meyer Robinson has been substituted for Dr. George W. Kosmak in the delegation of the County of New York.

The tellers will be as follows:

Table 1: Luzerne Coville
William M. Patterson
George R. Critchlow
Table 2: John E. Jennings
Carl Comstock
George M. Cady

The Secretary: I move that nomination speeches be limited to two minutes. Seconded and carried.

The following officers were nominated and declared elected:

President Elect, Dr. Harry R. Trick; Speaker, Dr. E. Eliot Harris; Vice-Speaker, Dr. John A. Card; First Vice-President, Dr. Joshua M. Van Cott; Second Vice-President, Dr. Horace M. Hicks; Secretary, Dr. Daniel S. Dougherty; Assistant Secretary, Dr. Peter Irving; Treasurer, Dr. Charles Gordon Heyd; Assistant Treasurer, Dr. James Pedersen; Trustee, Dr. James F. Rooney; Chairman, Committee on Scientific Work, Dr. Samuel J. Kopetzky; Chairman, Committee on Public Health and Medical Education, Dr. Thomas P. Farmer; Chairman, Committee on Legislation, Dr. Henry L. K. Shaw; Chairman, Committee on Medical Economics, Dr. W. Warren Britt.

The Secretary: With regard to the election of the Chairman of the Committee on Arrangements, it has been the custom for years to lay this over until we know where the next Annual Meeting will be held.

I therefore move that this election be referred to the Council. Seconded and carried.

The following were elected delegates to the American Medical Association for the years 1927-1928:

Dr. Thomas C. Chalmers,
Dr. George M. Fisher,
Dr. Arthur J. Bedell,
Dr. Grant C. Madill
Dr. Arthur W. Booth,
Dr. Frederick H. Flaherty.
Dr. Edward L. Hunt.

The following were elected alternates to the American Medical Association for the years 1927-1928:

Dr. Frank D. Jennings,
Dr. Samuel J. Kopetzky,
Dr. Arthur G. Bennett,
Dr. Martin B. Tinker,
Dr. Floyd Winslow
Dr. Charles G. Heyd
Dr. Andrew Sloan.

The following were elected delegates to the American Medical Association for the years 1928-1929:

Dr. James N. Vander Veer,
Dr. E. Eliot Harris,
Dr. Nathan B. Van Etten,
Dr. George A. Leitner,
Dr. Daniel S. Dougherty
Dr. Orrin S. Wightman.
Dr. J. Richard Kevin.

The following were elected alternates to the American Medical Association for the years 1928-1929:

Dr. John E. Jennings,
Dr. Edward R. Cunniffe.
Dr. George W. Cottis,
Dr. Edwin A. Griffin,
Dr. Edward W. Weber,
Dr. Albert W. Ferris,
Dr. David E. Hoag.

66. Prize Essay

The following report was presented by the Committee on Prize Essays:

Comparatively few essays have been offered to our Society in Competition for the Lucien Howe prize in ophthalmology. Only after the lapse of several years has any been deemed worthy of the award. But this year one of unusual merit has been sent to the Committee. It is entitled Photography of the Fundus Oculi It reviews methods adopted by earlier investigators, gives photographs of the varieties of apparatus formerly employed and then the plan adopted by the writer. He gives also a number of plates, including over a hundred photographs of the fundus oculi, in a normal and abnormal condition.

Many other details of excellence might be described, but for this report it must suffice to say that the essay referred to is a piece of work which reflects great credit on the patient, exact, scientific work of some member of the Medical Society of the State of New York and our prize in ophthalmology is therefore, awarded to the author of this Essay signed "Retina."

Lucien Howe, *Chairman.*

The envelope marked "Retina" was then opened and the Speaker called on Dr. Arthur J. Bedell, whose card was enclosed, and presented him with a gold medal as the winner of the Lucien Howe Prize.

67. Thanks to Committee on Arrangements

The Vice-Speaker: I would suggest that we appropriate this time to extending a vote of thanks to the members of the Committee on Arrangements and the Chamber of Commerce to whose work this splendid meeting is due. I move the adoption of this resolution. Seconded and carried.

There being no further business, the meeting adjourned.

E. Eliot Harris, *Speaker,*
Harry R. Trick, *Vice-Speaker,*
Daniel S. Dougherty, *Secretary.*

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NEWS NOTES

THE AMERICAN MEDICAL ASSOCIATION

A careful reading of the reports of the proceedings of the meeting of the American Medical Association as set forth in three sources, 1, the handbook provided for the information of the members of the House of Delegates, 2, the current reports in the daily press, and 3, the minutes published in the A. M. A. Journals of May 21 and 28, and June 4, justifies the conclusion that the meeting was exceedingly fruitful in diagnoses, prognoses, and therapeutics in practically all the fields of activity which engage the attention of the modern physician, and which will demand a more intensive consideration by physicians in the immediate future. The officers and committeemen of the A. M. A. have given deep consideration to the civic duties of physicians throughout the Nation. This article will review some of the more salient features of the meeting.

The preparation of a synopsis of the convention proceedings to be sent to the State journals was authorized by the adoption of a motion to that effect introduced by Dr. O. S. Wightman, Editor-in-Chief of the New York State Journal of Medicine. But since the proceedings of the House of Delegates are "Live" news, it has seemed best that this Journal should report the proceedings before the synopsis is received.

The examination of the minutes printed in the three issues of the *A. M. A. Journal* and the determination of the actions taken on the reports and resolutions would have been greatly facilitated if the paragraphs of the minutes had been numbered and cross referenced as is done with the minutes of the New York State House of Delegates published on page 670 of this issue of this Journal.

The meeting of the House of Delegates opened with reports of the Speaker, Dr. F. C. Warnshuis, the President, Dr. Wendell C. Phillips, and the President-elect, Dr. Jabez N. Jackson. These reports were based on the activities of the Association during the past year, and contained suggestions for the ensuing year.

The Speaker's address covered three principal points:

1. A commendation of the appointment of reference committees thirty days in advance of the Annual Meeting. This suggestion had been carried out for the meetings of 1926 and 1927, and on a motion seconded by Dr. Bedell of New York, the principle was approved. The action of the Medical Society of the State of New York in electing its delegates a year instead of a week in advance of the meeting should result in a wider inclusion of representatives from New York on the committees.

The Speaker discussed the publication of the reports of the officers and committees in the Journal a month before the meeting. There was some discussion of the advisability of deferring the publication of the reports of the officers and committees before they had been considered by the reference committees. The reference committee had recommended as follows:

"Future reference committees should have the opportunity of passing on addresses referred to them before they are given publicity either in the Journal or in public print. The reason for this recommendation is obvious for reasons of policy, for in this way only may these reports go forth with the added authority of the House of Delegates."

However, this suggestion of the reference committee was not approved by the House.

This publication of the reports of officers and committees before the Annual Meeting has been adopted in New York and other states, and has promoted an increased interest in state and national medical affairs by both the delegates and the members generally. Wider publicity of medical society affairs is a progressive step in medical administration.

2. The Speaker referred to the existence of two committees on nursing. Their reports on nursing were voluminous and exhaustive; and while few conclusions were presented, the continuance of the investigations was approved.

The Board of Trustees suggested the appropriation of $5,000 to continue the study of the nursing situation, and the suggestion was approved by the House.

Dr. N. B. Van Etten is Chairman of the Nursing Committee of both the New York State Society and the A. M. A. The physicians of New York State favor a more intensive study of the nursing problem and the development of agreements with nursing associations and hospitals. The situation can best be clarified by the concerted action of all parties concerned.

3. Dr. Warnshuis suggested that the A. M. A. should appoint a committee of seven to consider the standards by which a medical practitioner should be recognized as a properly qualified surgeon. The suggestion was adopted. No reference seems to have been made to the work of standardization by the American College of Surgeons.

Dr. Wendell C. Phillips, in his President's Report, discussed the duty of the medical profession to educate the public in medical matters, and reiterated the broad views which he set forth in his inaugural address which was published in the May 1, 1926, issue of this JOURNAL, and which were heartily approved by the medical profession of New York State.

The subject of medical publicity aroused considerable discussion which was given wide notice in the daily press. The conclusion was that medical publicity and education was desirable if it was conducted under the authority and censorship of a medical society.

The discussion of medical publicity has some inconsistent features. The question has not aroused contention in New York State; but on the contrary, New York physicians in private practice and in departments of health discuss medical problems freely in the newspapers and magazines. The New York State doctors would not permit the insertion of the cards of surgeons and other specialists in their medical journals, and yet the official medical journals of some state societies in the Middle West, where the leading critics of medical publication live, carry whole pages of the paid advertisements of specialists, and no one seems to make objection to the practice. These things are regulated by local custom.

The question of publicity came up in another form during the discussion of periodic examinations. It was felt by some that physicians would be acting unethically if they solicited the examinations, and therefore a resolution was introduced and adopted that the A. M. A. prepare a form letter which would be distributed to physicians through the county medical societies. This letter would call attention to the benefits of having the examinations made by family physicians and records kept for the benefit of the patients only.

Dr. Phillips discussed the conference on Public Health which was held in Chicago on the 24th and 25th of last March and was reported in this JOURNAL in the April 15, 1927, issue. The recommendation that a similar conference be held annually was approved.

The subject of legal restrictions on prescriptions for alcoholic liquors was discussed by Dr. Phillips, and was considered by the House at length in executive session. The Reference Committee finally reported as follows:

"As regards the purport of the resolution presented by the Medical Society of the State of New York in relation to medicinal alcohol, stripped of all verbiage, this resolution demands that the principle here promulgated takes the issue out of all wet or dry questions, and insists that the physician be given by Congress the freedom from restriction to prescribe alcohol in disease as his scientific judgment dictates. We therefore offer the following resolution:

"Resolved, That the American Medical Association declares its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine.

"The above resolution states succinctly the principles involved and the result desired therefrom. The question therefore arises, How may this result be best brought about? It has been suggested through the following resolutions offered in the House of Delegates by Dr. Chalmers that a referendum be taken regarding this opinion on therapeutic use of alcohol in disease and that the results of this referendum be offered to Congress:

"Resolved, That the trustees of the American Medical Association be requested to send to every registered physician practicing in the United States a ballot requesting him to vote on the following question:

"'Are alcohol and alcoholic liquors, as listed in the latest edition of the United States Pharmacopeia, useful therapeutic agents in the treatment of disease?'

"And be it further

"Resolved, That the trustees of the American Medical Association be requested to submit the returns of this questionnaire in a memorial to Congress, asking that the restrictions on the quantity of alcohol and alcoholic liquors that may be prescribed for the sick be removed.

"With reference to the resolutions of Dr. Chalmers of New York suggesting a referendum, your committee would recommend that this matter be referred to the Board of Trustees with power to act. In the event that a referendum is considered advisable, your committee would suggest the following questions:

"(a) Do you believe that legislative bodies should enact laws regulating or limiting the prescribing of therapeutic agents by legally qualified physicians?

"(b) Do you believe that alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia are useful therapeutic agents in the treatment of disease?"

The resolutions were adopted.

The Reference Committee on Hygiene and Public Health made a supplementary report on the relations between medical men and health officers, and began by saying:

"The question involved is: Is it or is it not one of the essentials of ethical practice of medicine that the practitioner of medicine become, in his local area, a quasi, unpaid assistant to the department of health?"

"That question has never been definitely answered."

That question has been answered definitely in New York State, and a close cooperation has been going on for several years between the health departments and family physicians. The culmination of the cooperation came with the active functioning of the Committee on Public Relations through which harmony was secured in the trinity of public health workers—physicians, health officers, and lay organizations. The principle of the cooperation on the part of the physicians is that of "Every physician a health officer," set forth by Dr. George E. Vincent in an address given before the Annual Meeting of the Medical Society of the State of New York on May 13, 1925, and published in the June 1, 1925, issue of this JOURNAL.

The report of the Reference Committee continues:

"Whatever may be the opinion of either party—the department of health or the local practitioner—the situation is to be faced and settled on a broad basis of mutual understanding, not by useless resistance of either party to the controversy.

"Health boards and health officers are established facts. The physician has his established position in society. Whether he will or not, he must accept the existing conditions; he cannot nor should he attempt to stop the progress of civilization; rather should he become an aide to the administration of the functions of the health officer, and by so doing enhance his value to his patients and his public; for in the end he will find that resistance is only a damage to his public and also to his reputation and usefulness; for the health officer cannot perform his function without the physician, nor in the end can the physician alone or the entire medical body stop the progress of the effort for better hygienic surroundings and better health, nor if he were successful in such an effort would he accomplish anything but destruction of his own reputation and his usefulness in his place of residence.

"If there were no other reasons than those set down in the article under consideration, it is a condition and not a theory that confronts the physician, and he would not improve his personal position in his local environment by unreasonable resistance, while he will improve his position only in collaboration in the administration of the local health officer.

"There is no other course to be taken than that of collaboration, and in that method of meeting the situation he will find his only path to safety and material betterment, nor can the medical group of any locality expect to benefit in a material way."

The report was adopted.

The New York State Medical Society has gone a step further, and has acted on the principle that physicians should not merely follow and support the health officer, but should assume the leadership of public health and the practice of civic medicine.

A detailed study of relief for indigent physicians was presented state by state in a five-page report. The conclusion was that so few physicians were in want that there was no need for the A. M. A. to consider an organized effort of relief.

The subject of medical education was considered, some delegates being of the opinion that this course in the medical schools should be simplified and made more practical, and others believed that still more basic science should be taught.

Several matters of specific interest were considered and adopted, among them were the following:

1. The regulation of cosmetics.
2. Legalizing contraception advice for the benefit of health.
3. Regulations regarding the labelling of cans of lye and other caustics.
4. Establishing laboratories by the U. S. P. H. S. for the study of health hazards in industry.
5. Recommending the formation of Disaster Relief Committees by the several states and counties. The City of Utica has such an organization. See this JOURNAL August, 1924, page 814.
6. Fees for making out insurance blanks in cases of death and accidents.
7. Heroin addiction.
8. Veteran's bureau.
9. Medical Practice in the District of Columbia.
10. Income tax exemptions.

The meeting of the American Medical Association was a remarkable demonstration of the harmony that exists among the 140,000 physicians of the United States. It is gratifying that New York State, with over ten per cent of the population of the nation and of its physicians, ranks high in the solution of practically all the questions that were considered by the national body.

* * *

THE DAILY PRESS

THE LAWYERS' GRIEVANCE COMMITTEE

The provision for a Grievance Committee that was written into the new Medical Practice Act of New York State was modelled after a similar committee of the lawyers of New York State. The New York *Sun* of May 13, commenting editorially on the work of the lawyers' committee, said:

"In this association alone between May 1, 1926, and April 30, 1927, complaints numbering 1,490 against members were filed with the committee on grievances; 440 attorneys were accused of neglect or carelessness or collusion against the interests of their clients; 238 were accused of improper charges of fees; 216 of misappropriating money or property; thirty-nine of employing improper methods of obtaining retainer fees; forty-seven of using tactics verging on blackmail, and eight being convicted of crime. The committee recommended eighteen cases to the executive committee for disciplinary action, eight attorneys were disbarred and one was suspended for a year.

"Most complaints are made by clients. Bar associations would be most useful to defrauded clients and most dangerous to crooked lawyers if, in addition to the machinery for examing legal evidence, they set up machinery to make reasonable inquiry to determine whether evidence of which clients are ignorant might not also be found."

If one may judge by the number of cases brought before their inspective Grievance Committee, the physicians are fully as moral and upright as their legal brethren.

MAN'S WORST ENEMY

An editorial in the New York *Herald Tribune* of May 20 says that man's worst enemy is man himself. It was based on the tragedy of a Michigan school dynamited by an insane man, and said—

"The treachery was confined to a brain, to the distorted imagination of the insane. It is lesser falterings of minds that kill the thousands who die under the wheels of automobiles. Most of the other victims of machines are really the victims of man.

"Perhaps some day we shall stop marveling at man's inventions and discoveries long enough to recapture the ancient truth that man's mind and heart, his fidelity, his honor, his good sense, are still the central facts of our universe, and that without them nothing is worth inventing or discovering or possessing."

The psychiatrists are now joining the clergy in preaching the unreliability of man, and yet it is the spirit of Americanism to ascribe moral perfection to every human being until the contrary is proved beyond a doubt. It is assumed, for example, that any person is capable of driving an automobile until he has showed himself incapable by a careless act. A psychiatrist would test a man's ability to operate an automobile before allowing him to drive. Legal permission to pilot an automobile should be on the same basis as a license to captain a steamboat or an airship.

ANTIVIVISECTION

A wave of propagandum for antivivisection has recently swept through the daily press, although it was only a tiny ripple on an inside page. That is about all the promoters of the cult seem able to achieve, although when news is dull the newspapers welcome any subject that can be magnified into a mild thrill. Many of the articles were written on behalf of the dog only; and the authors were quite willing that cats and monkeys and guinea pigs should be sacrificed.

The New York *Herald Tribune* for March 13 said editorially:

"When vivisection is to be defended it is unnecessary to urge, although it is true, that such experiments may contribute directly to the conquest of this or that disease or to the saving of this or that human life. It is enough to urge, which is equally true, that they may contribute to the further banishment of ignorance. If one dog gives his life to buy a fact, he has done more than most men can do to aid the world."

Another point which has been urged by the anti-vivisectionists is that the laboratories in which experiments are done on living animals be open to inspection by anti-vivisectionists. This point is answered in the *Herald Tribune* of March 12 in the following letter by Benjamin C. Gruenberg, Managing Director American Association for Medical Progress:

"On March 6 you printed a group of letters under the general caption 'Full Light on Vivisection,' in which are expressed demands that the humane societies have free access to experimental laboratories.

"You will be interested to know that such access is actually offered to authorized representatives of humane societies and, for that matter, to any one who has legitimate excuse for visiting research laboratories. Medical laboratories, including the animal rooms, are open to the public. After making a survey covering virtually all of the medical colleges and research institutes in the United States, the American Association for Medical Progress, a national lay organization, found that responsible visitors are welcome at all times and that several of the laboratory directors extend special invitations to officers of humane societies in order that these officials may, if they choose, observe for themselves the manner in which the animals are cared for and the conditions under which they are used for experimental purposes.

"A few of the laboratories, the reports show, prefer visitors who have seen an operation performed on human beings. 'Only in this way,' writes one of the directors, 'can visitors appreciate in any degree the similarity between the two and the care taken against inflicting pain and avoiding infection.'

"Besides maintaining a policy which encourages inspection of laboratories by one who may be properly interested, these institutions have all adopted a set of rules governing the custody, care and use of laboratory animals. All operations must first be approved by the laboratory director, and all animals used must be rendered insensible to pain if the operation is likely to cause greater discomfort than that attending anaesthetization. Exceptions to the use of anaesthetics can be made by the director alone, and then only when anaesthesia would defeat the object of the experiment.

"In view of the actual conditions it seems eminently unfair for your correspondents to insinuate, by demanding 'the open door,' that the facts are quite otherwise and that the practices in these laboratories, with which none of the writers claims to be familiar, are of a kind that should arouse the reprehensions of right-thinking citizens."

UNNECESSARY NOISES

The New York *Times* of May 31 comments editorially on the campaign of Dr. Louis I. Harris, Commissioner of Health of New York City, to soften the unnecessary noises of New York City; and says:—

"Professor A. M. Low is coming to the United States in June to help to eliminate unnecessary noises in New York. He has scored successes in London. It is his opinion that 'noise kills many persons annually and shortens life by diminishing human resistance.'

"It would be a mistake to limit a campaign of noise reduction to doing away with steam-riveting. The field of reform includes the roar of elevated railways, the grinding of wheels on surface cars, the pandemonium of auto horns, the resonances of jazz 'palaces,' uncurbed excesses of the radio industry and slamming of cans by ashmen on their rounds at night.

"Victims should study the law of nuisances and invoke it in the courts."

A lawsuit would be more nerve-racking than the noise on which it was based. The American citizens will have to make up their minds to develop a nervous immunity to noises rather than to attempt the hopeless task of suppressing them.

QUESTIONNAIRES

The New York *Times* for May 27 says editorially:

"Thirty or forty years ago some of the most popular weekly journals in England begged their readers to ask them questions. The storehouse of information was then in the editorial offices. Today the tables are turned, and the man who buys a newspaper finds a column with the headline staring him in the face, 'How Much Do You Know?'

"This is certainly different from the old way. The newspaper proprietor of other days did not presume to ask questions; he answered them. At present it is the editor who calls upon the reader to stand and deliver whatever knowledge he may have in his pockets.

"The *Saturday Review* writer does not believe that this fad will last long. The reason he gives is that 'we love opinions and we hate knowledge.' We are fond of discoursing to our fellows about subjects on which we could not possibly pass an examination paper."

Only an exceedingly small percentage of physicians are addicted to the habit of either asking or answering questions through the columns of their medical journals. Three or four years ago it was expected that an open forum would be an appreciated feature of the NEW YORK STATE JOURNAL OF MEDICINE, but the department died aborning. However, the *Journal of the American Medical Association* uses questions asked by correspondents as the bases for brief textbook discussions of simple problems in diagnosis and therapeutics after the style of the best question and answer columns of the New York *Sun* and other periodicals in the days when knowledge was sincerely desired.

BOOK REVIEWS

Surgical Clinics of North America. Volume 6, Number 1, February, 1926. (Philadelphia Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, $16.00; paper, $12.00.

The Philadelphia number comprises a large group of contributions by the leading surgeons of that city. The work of Dr. Babcock stands out most prominently, not only on account of the almost endless variety of conditions treated, but particularly because of the fact that this eminent surgeon has demonstrated the possibility of carrying out so much of his operative work, almost exclusively under spinal anaesthesia. It is a remarkable record of over 20,000 operations in about 20 years, with a practicably negligible mortality. He describes his technique in the most minute detail, guarding against mishaps by every possible precaution, and by prompt and suitable treatment when complications arise, as they occasionally do. This undoubtedly accounts for his remarkable results.

Surgical Clinics of North America. Volume 6, Number 2, April, 1926. (San Francisco Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, $16.00; paper, $12.00.

The clinics in this issue are of an eminently practical character. They deal with conditions that are of everyday occurrence in the average operating-room performances. The presentations are clear, concise, and to the point, whether it be the treatment of a fractured patella, a hallux valgus, the surgery of the biliary system, epithelioma of the cervix or an inversion of the uterus. There is an excellent article on the dissection of the neck with very good illustrations that will commend itself to those interested in this branch of surgery.

Surgical Clinics of North America. Volume 6, Number 3. June, 1926. (Lahey Clinic Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, $16.00 net; paper, $12.00 net.

This issue is designated as the Lahey Clinic number. As one would expect, a great deal of space is given to the discussion of thyroid disease in its various forms, but other topics, as gall-bladder disease, gastro-duodenal ulcer, and other abdominal conditions receive sufficient consideration.

The advantages of spinal anaesthesia and also of ethylene as an anaesthetic are discussed at considerable length. The article on the chronic cardiac as a surgical risk is a very timely one, and will be appreciated by every surgeon. The treatment of emboli of the peripheral vessels with the report of a number of cases subjected to operation is certainly interesting and instructive.

Herman Shann.

Reminiscences. By George Henry Fox, A.M., M.D. Octavo of 248 pages, illustrated. New York, Medical Life Press, 1926. Cloth, $3.50.

Dr. Fox has written a very interesting volume of reminiscences, covering his early life in Saratoga County, New York, (he was born in Ballston Spa in 1846), Schenectady and Painted Post; his college years at the University of Rochester, (class of 1867); his study of medicine at the University of Pennsylvania and as medical interne in Blockley Hospital; his medical studies and travels in Europe—Leipsic, Berlin, Vienna, Paris, London, Rome, etc.; his early practice in New York City, beginning in 1873; his college appointments; hospital and dispensary practice; military experiences—Civil War and World War; medico-legal experiences.

Incidentally, he mentions the names of men who were prominent in medical affairs twenty-five to fifty years ago. One chapter is devoted to a sketch of the late Dr. Henry G. Piffard, and another to the Fox family history and the "Society of the Descendants of Norman Fox."

The book is very delightful reading and will be especially interesting to those who were students at the College of Physicians and Surgeons between 1880 and 1907.

Ira O. Tracy.

Principles and Practice of Chemotherapy. With Special Reference to the Specific and General Treatment of Syphilis. By John A. Kolmer, M.D. Octavo of 1,106 pages, with 82 illustrations. Philadelphia and London, W. B. Saunders Company [1926]. Cloth, $12.00.

In his symposium on Chemotherapeutics, Dr. Kolmer is indeed to be acclaimed for the successful completion of a task which he by reason of his immense amount of research was well qualified to undertake and which task was assuredly far from a light one.

Since the brilliant work of Ehrlich and his co-workers, chemo-therapy has developed into a far more complex subject than was conceived by him. Complex chemical and physico-chemical forces are involved in the effects of a chemical agent on both the body cells and invading parasites, and the matter of a selective destruction of parasites in the tissues would appear to be one of chemical or physico-chemical interaction between the chemical agent and the protoplasmic constituents of the parasites, just as the specific immunological processes of the body are being gradually placed on the same basis.

While it is true that the brilliant successes of chemotherapeutics in spirochetal, protozoan and metazoan diseases has not been approximated in the bacterial infections, still modern contributions toward the local sterilization of tissues by chemical agents, as well as the occasional brilliant results of systemic sterilization as more recently reported by Young and others with mercurochrome and similar synthetics, leads one to the hope that it may not be long before the dream of Ehrlich of a "Therapie Sterilisans Magna" may be achieved.

The physician at large is rarely aware of the tremendous amount of work that is being constantly carried on by the laboratory man, mostly on leads that are far from definite and all in the hope that something tangible may be achieved.

A considerable part of this book is devoted to Syphilis, the subject being covered in a varied and thorough manner. Well taken indeed, is the plea of the author for standardization of technique in the Wassermann reaction since so much dependence (and wrongly) is being placed on this single link in the chain of diagnosis and prognosis of this disease by a majority of the profession. Too true, indeed, is the very considerable danger that may ensue from placing too much reliance upon negative Wassermann reactions as an index of permanence of cures since even a series of two or three negative reactions may not mean a permanent freedom from subsequent relapse.

To each chapter is appended a complete list of references so that one may follow up in detail any lead found personally of value.

The reviewer has no hesitation in recommending this excellent work to the general medical man as well as to the laboratory worker, for a careful, painstaking study of the same will clarify many points that to the present have not been readily available in such accessible form.

ALEXANDER AISMAN.

ADVISING THE TUBERCULOUS ABOUT EMPLOYMENT. By W. I. HAMILTON and T. B. KIDNER. 12mo of 171 pages. Baltimore, The Williams & Wilkins Company, 1926. Cloth, $2.00.

This is a valuable treatise of no little importance, medically and economically in this work-a-day world of ours. Giving adequate and sensible advice to a restored tuberculosis patient regarding employment is a difficult and often delicate task, carrying with it a very definite responsibility. If it is to be of value there is required of the adviser not only a grasp of the medical problem involved but also of the economic one; together with something of an idea of the hazards incurred in the following of any of the many occupations developed by modern industry and commerce.

It is just such information that this little book gives in a conservative practical manner. The authors base this advice on thoroughly modern concepts of the disease, and they are to be congratulated. They have wisely relegated to the rubbish heap a number of old superstitions and fetishes which have helped in subjugating not only the average layman but also a large portion of the profession itself—as for instance, the need forever after of living in some special kind of climate; or the advisability of engaging in some "out door" occupation, etc.

It would very well pay every physician who assumes the responsibility of advising the tuberculous about employment to read this contribution through from cover to cover and thoroughly to digest it.

FOSTER MURRAY.

BIOLOGICAL RELATIONS OF OPTICALLY ISOMERIC SUBSTANCES. By ARTHU R. CUSHNY, M.A., M.D. Octavo of 80 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $2.00. (The Johns Hopkins University, School of Medicine, The Charles E. Dohme Memorial Lectures, Third Course, 1925.)

This book of eighty pages consists of some lectures delivered by the late Dr. Cushny under the Charles E. Dohme Foundation at Johns Hopkins University in 1925. The subject matter is technical and such as to appeal to the chemist and pharmacologist. The first part deals with the discovery and researches of Pasteur on the isomeric tartaric acids and the power of their solutions to rotate the plane of polarized light. He then follows the history of the discovery of other optically active substances and then their action on plant and animal tissues. This leads up to a study of their pharmacological and toxic action and the theories of their specific action in therapeutics.

E. H. B.

CLINICAL APPLICATION OF SUNLIGHT AND ARTIFICIAL RADIATION. Including Their Physiological and Experimental Aspects with Special Reference to Tuberculosis. By EDGAR MAYER, M.D. Octavo of 468 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $10.00.

In this highly instructive volume Dr. Mayer has collected and very well presented a vast amount of research work on light and its clinical application. In addition to his own very extensive work he describes that of many contemporary workers in this rather new field. There are very interesting chapters devoted to the nature of light and its artificial production, its therapeutic uses and the results thereof. The physics of light and its chemical effects are very well presented. The historical sketch is interesting and makes us realize that light therapy, while not recognized as such, has been practiced for ages. Much of the data given is repeated verbatim from the original writers, but as due credit is given this is not objectionable. The case reports and photographs are clear and interesting. The work as a whole forms a definite contribution to our knowledge of light therapy, and its careful perusal can be recommended to all interested in the subject.

JEROME WEISS.

MENTAL INVALIDS. Being the Morison Lectures delivered before the Royal College of Physicians of Edinburgh in June, 1925. By C. C. EASTERBROOK, M.A., M.D., F.R.C.P.E., Physician-Superintendent, Crichton Royal, Dumfries. Oliver and Boyd, Edinburgh, 1925. Price, $5.00.

In this book Easterbrook discusses some of the practical psychiatrical problems which have specially engaged his attention during the past thirty years.

The discussion is presented in the form of three lectures, dealing with the body-mind relationship; clinical examination of those mentally ill; etiology, prevention, classification and treatment of mental diseases.

A very good review of Freudian principles is given, and although the author recognizes and appreciates their value in the field of psychiatry, and stresses the importance of the study and treatment of the individual as a whole, nevertheless he warns against the substitution of what he terms speculative, for a descriptive psychology.

According to the author a "nervous invalid" is a "mental invalid," and in the lecture, "Causation of Mental Diseases," he speaks of a "nervous constitution" as the predisposing factor. There are many interesting statements as to what is to be included under this term. A remark is made, "the average American is becoming distinctly more 'nervy'." One wonders.

In "The Classification of Mental Diseases," formulated by the author twenty years ago, psychoses are grouped as: congenital, constitutional, organic, organismal or "bodily," toxic and energic. In most instances the reaction types can be identified with those of The American Psychiatric Association classification, but in some they cannot be correlated. For example, the author considers, epilepsy and chorea as psychoneuroses. He also suggests the term "delusio" indicating a reaction type (Delusional Condition Unfixed), grouped with the constitutional psychoses. One feels the need of a universal terminology and grouping of reaction types so that we may all speak the same language.

Constitutional psychoses, including manic-depressive psychoses, dementia praecox, psychoneuroses, etc., are considered by the author as "specifically diseases of the association areas of the cerebral cortex, especially the frontal, but also the parietal." One can say so far studies have brought to light no change in the brain distinctive of the constitutional or so-called functional psychoses.

He emphasizes early treatment in the mental diseases and many pertinent statements are made relative to the treatment of voluntary patients in mental hospitals, and open-air rest treatment of active psychoses. It is interesting to note that Easterbrook practiced endocrinotherapy from 1894-1900, and draws some very striking conclusions.

"Mental Invalids" is well presented and might be spoken of as "easy reading." Much of the material is old, some new—a linking of the past with the present. The reading of it is recommended to those who wish to add to their general knowledge of psychiatry.

A. E. WITZEL.

THE FINER DIAGNOSIS OF ACUTE BRAIN INVOLVEMENTS Inclusive of Syphilis and Brain Injury. By J. VICTOR HABERMAN, A.B., M.D. Octavo of 116 pages. New York (1926), (Monograph Medical Journal and Record).

This monograph is clearly not designed to be an exhaustive discussion of the subjects included.

The first chapter treats of inflammations of the brain resulting from bacterial invasion—Encephalitis, Meningitis, Syphilis, etc. Some salient points are given covering etiology, symptoms, prognosis and treatment of the diseases mentioned, with a number of case records.

Chapter II—Brain Injury and Its Sequelae—cites a group of traumatic head injuries which are especially interesting on account of certain interpretations associated with post-traumatic physiology of the regions involved, and are conclusions which at least have a scientific basis even when not verified post-mortem.

The final Chapter III—Acute Disruptive Vaso-Cerebral Conditions—indicate the type of lesions presented in the last chapter; apoplexy, cerebral hemorrhage in the new born and in childhood, cerebral embolism and thrombosis.

The contents of this little volume are of importance to the general practitioner, but are rather sketchy.

Each chapter has an authoritative bibliography of some range which enhances the value of the monograph for those with time to delve deeper.

H. G. Dunham.

The Significance of the Physical Constitution in Mental Disease. By F. I. Wertheimer and Florence E. Hesketh. Octavo of 76 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $2.50. (Medicine Monographs, Vol. X.)

The recognition of personality and body types, and the grouping of human beings under different classifications is not a modern effort. Wertheimer and Hesketh, appreciating this, give a very comprehensive review and discussion of the work of various investigators in these fields.

The material used in their study consists of 65 male patients, classified in four diagnostic groups: manic depressive (19), Schizophrenic (25), organic (10), and psychopathic personality and psychoneurotic (II) reaction types. Kretchmer's classification of morphological types (asthenic, athletic, pyknic and dysplastic) are followed in the main by the authors. The influence of age and growth is emphasized as a source of error in various observations.

The work of Kretchmer, "Physique and Character" has been criticized on the ground that it is descriptive or impressionistic—by what the eye could see, rather than through measurements. However, the authors, in their studies, making use of simple observation and exact measurements (anthropometry) having, themselves, devised a new anthropometric index, arrive at practically the same conclusions as Kretchmer. Their results with the index indicate that the schizophrenic reaction types are predominately associated with the asthenic, athletic or dysplastic habitus (high index value), and the manic depressive reaction types are related to the pyknic or pyknoid habitus—a sub-type of the pyknic described by the authors (low index value).

They also conclude that the pyknic habitus predominates in the "syntrophic" group, the asthenic-athletic in the "idiotrophic" group.

The terms "idiotrophic" and "syntrophic" are coined by the authors to denote tendencies or affective attitudes in individuals, although they use these terms in their tabulations to indicate prepsychotic personality. Perhaps these terms may be more descriptive of the individual's affective attitude, but they can be correlated with Kretchmer's schizothymic and cyclothymic; Bleuler's schizoid and syntoid; and Jung's introvert and extrovert—terms used to denote personality types. One feels that already the terminology of psychiatry is burdensome and that soon one will be unable to see the tree because of the woods.

In the organic and psychopathic personality and psychoneurotic reaction types no conclusions are drawn. However, in their tables they indicate a predominance of the pyknic habitus in the former group; the pyknic and asthenic-athletic being about equal numerically in the latter. Only five of the 21 cases are indicated as to prepsychotic personality, four being syntrophic. Several inferences might be made from these tabulations, but they would merely constitute crude guesses.

Schematic diagrams of trunk, face, etc., several plates showing types of habitus and a summary consisting of seventeen conclusions, add to the value of a very interesting book—one which should prove to be a very real contribution as a stimulus for further research along these lines.

One feels that our morphological technique is still too undeveloped to permit the postulation of a definite correlation of body structure with possible types of behavior, either prepsychotic or psychotic.

A. E. Witzel.

Military Meat and Dairy Hygiene. Prepared Under the Direction of the Surgeon General of the United States Army. Compiled by Captain Horace S. Eakins, V.C. Octavo of 647 pages. Baltimore, The Williams and Wilkins Company, 1924. Cloth, $6.50.

This extensive work has to do mainly with the government veterinary inspection service of fish and flesh foods and dairy products for consumption by the United States Army. It is quite specific as to details and very largely of a rather highly technical nature yet in clearly expressed and readable language. It tells of the selection, slaughtering, handling, curing and preserving of cattle, calves, sheep, goats, swine, poultry, fish and other food producing animals and eggs, milk, ice cream, butter and cheese. No one person could quite be an expert in all of these products covering their condition, care and handling. Therefore, much of the text is made up of definitions and standards from various sources.

It should be a great guide to those in or contemplating the army veterinary service or Federal packing house inspection.

The volume treats of several subjects quite wide of the mark of sanitary inspection of food products such as the care, handling and caring of hides, the preparation of various pharmaceuticals, complete slaughter house details of inedible parts, the different cold storage systems, descriptions of ice making machines, the mining and refining of ordinary salt and the manufacture of tin plate.

There is very considerable repetition in the book. One gets tired of reading twice over for instance how to use a trier on hams and other meat products. *Pork products—Army bacon,* is treated of under the title in no less than four different places and all paragraphs very much the same wording.

The national standards for production and handling of Certified Milk are given in full but it is unfortunate that the old standards of 1912 are quoted rather than the much revised standards of 1923.

Harris Moak.

Anatomy of the Wood Rat. Comparative Anatomy of the Subgenera of the American Wood Rat (Genus Neotoma). By A. Brazier Howell. 8vo. of 225 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $5.00. (Monographs of the American Society of Mammalogists, Number One.)

This volume represents the first publication in a series of monographs of the American Society of Mammalogists. It treats of the comparative anatomy of the subgenera of the American wood rat (genus neotoma). The subject has been handled in a complete and thorough manner. The chapters on Myology and Osteology are the results from a long and detailed study of this animal. The author is to be complimented upon the excellent illustrations which have been prepared from his own drawings and are self-explanatory. This book is of great value to those interested in comparative anatomy and to research workers who may use this animal for experimental purposes.

O. C. P.

OUR NEIGHBORS

THE FLOOD CRISIS IN ARKANSAS

The May *Journal of the Arkansas Medical Society* has the following editorial comment on the flood conditions in the State:

"Sanitary measures and preventive medical treatment after the recent floods have proven their incalculable value and doubtless saved many lives by averting epidemics. Our Health Officer Garrison, the members of the State Board of Health, and their efficient office force, have been busy night and day. Dr. Garrison, Secretary of the Board, has shown wonderful ability and energy in handling the situation, which has no precedent in any flood disaster in the memory of anybody living. In some camps there has been some sickness, but it is a tribute to the medical profession that no epidemic has been reported. The herding together of men, women and children, and with them in some instances, domestic animals, and uninvited wild animals, for days at a time on high spots before they could be rescued, with no sanitary equipment, insufficient food and water supplies, together with inevitable soil pollution, must have precipitated serious conditions, but for the prompt measures and the untiring efforts of the medical authorities.

"The members of our profession gave the best that was in them, untiring and unselfishly, but exposed themselves unhesitatingly to danger, even to death. For example, Dr. DeClark of McGehee narrowly escaped drowning while answering a call when his boat was overturned. Had he not been a good swimmer, he must inevitably have been drowned as he had to swim quite a distance in the rapid current before he was rescued.

"In this connection, it is in order to note the great work done at Little Rock by the Arkansas Water Company, and the men working under the direction of the officials, in preventing the inundation of the pumping station. Day and night they worked even at times when it seemed that the labor would prove futile, and a possible water famine was fortunately averted. What a water famine would have meant to the health of the city of Little Rock is almost unthinkable.

"The various health authorities deserve recognition for their excellent work and their untiring zeal and prompt preventive measures taken. Yet in their zeal and anxiety there has been some criticism of the fact that many applying for vaccination against typhoid who were well able to pay, were referred to the Free Clinics, already overworked, instead of to the family physicians.

"At one of the larger clinics in Little Rock, the physician in charge complained of the distance from the clinic he was compelled to park his car, due to the congestion of the pauper's automobiles. With this sole exception, there is no room for criticism of the splendid efforts of the local health officer.

Throughout the State members of the medical profession had a herculean task, such as never confronted them before over so large a territory and involving so many people. Just how unselfishly and with such self-sacrifice of their own comfort and well being, this great work was accomplished and the people spared epidemics in addition to the physical damage to property and crops, would make an epic which never can be adequately told."

PUBLIC HEALTH WORK IN THE FLOOD AREA

Professor Ira V. Hiscock of the Department of Public Health of the Yale Medical School describes his experiences in the flood area in the following article printed in the May issue of the *Monthly Bulletin* of the New Haven Department of Health.—Editor's Note.

"An urgent call for assistance in connection with the public health problems of the flood area resulted directly in the reporting of Dr. H. A. Lanpher, Epidemiologist of the Connecticut Department of Health, and myself at the Memphis Headquarters of the Red Cross. Here we were told on Tuesday, May 3rd, that the most pressing problems were then in the State of Arkansas where the State Health Officer had requested immediate aid. After receiving our typhoid innoculations and smallpox vaccination, with a group of other health workers from North Carolina and the International Health Board, we proceeded at once to Little Rock. While awaiting our train, and through the courtesy of the Memphis City Health Officer, we visited the great refugee camp on the Memphis Fair Grounds and

(*Continued on page* 694)

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The following formula is submitted as a means of preparing suitable nourishment in intestinal disturbances of infants usually referred to as ummer diarrhea:

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Water (boiled, then cooled)	**16 fluidounces**

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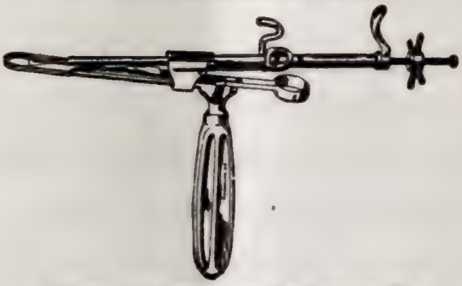

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(Continued from page 692)

received our first lessons in handling refugee problems. The Memphis camp was as near a model as one could imagine.

"After working out a uniform program of procedure with the State Health Officer at Little Rock, six of us were assigned to as many health districts in the flood area of the state, the number of counties for each officer varying from three to five. At that time, nearly the entire area of certain of the counties was under water. To reach many of the towns it was (and still is) necessary to travel by boat, or aeroplane, while others could be reached by rail although the highways were flooded.

"It was early recognized that measures for the prevention of typhoid and other intestinal diseases were most pressing, and we proceeded as rapidly as possible to assist the county and local health officers in the organization of immunization clinics, in the treatment of water supplies, in securing the proper disposal of body discharges and dead animals, and in the supervision of food supplies. Boiling of milk is urged everywhere.

"Local physicians and volunteer lay workers have cooperated in this work whole-heartedly, with the result that many thousand inoculations against typhoid have been given free, to the refugees, as well as to residents of the various towns, cities, and rural districts of the state. Free vaccine has been supplied through the State Board of Health and medical and other supplies have been provided by the Red Cross. Because of the danger of smallpox, vaccination to prevent this disease has generally been given at the same time as the first typhoid inoculation.

"A somewhat typical picture may be given of the procedure in one town in my own area. This town is situated 15 miles from one of my headquarters. Before my arrival, two medical army officers had been detailed here for duty to aid the local physicians and they had organized a team. This team was composed of two physicians, a Red Cross nurse, two volunteer women to register those immunized, and a Boy Scout to sterilize the needles and syringes. As ten of the fifteen miles between our headqaarters and the town are under water, we made the trip by rail on a work car loaned by the Missouri Pacific Railroad. The Chairman of the Food Committee accompanied us because his influence in requiring health protection measures of those receiving supplies has been an important factor in the work.

"The clinic was set up in a grocery store, and the people filed systematically past the members of the team through the store, and out the rear door. This clinic was established next door to to the commissary where the refugees received their supplies. I had the unique experience of canoeing up Main Street by the health officer's home of this town."

"Wherever possible, the municipal water supply has been utilized, and chlorinating apparatus has been provided in several instances. In many of the smaller communities boiling water has been strongly urged. At the small camps, where municipal supplies were not available, water has been heavily treated either with calcium hypochlorite or iodine, as conditions of supply permitted. Army style latrines have been built at the camps, but in the towns the problem of proper waste disposal is naturally much more complicated, as the smaller communities have no sewerage system and surface privies are the rule. Here it has been necessary to use lime and similar material extensively. We are urging the adoption of model privy ordinances at every opportunity but this work will necessarily proceed slowly because of the economic situation.

"Another problem which must be faced is that of mosquito and malaria control. This is a stupendous task. Quinine for prophylaxis will be supplied shortly, and oiling in certain of the areas where the water has subsided has already begun on a small scale. But when one realizes that hundreds and thousands of acres are flooded and that even in many of the streets of villages the water is still several feet deep, the magnitude of the problem becomes apparent.

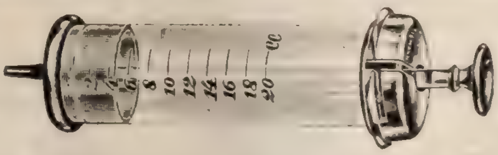
"It is gratifying to receive word as this story is being written that Mr. J. A. LePrince, a mosquito control expert of the U. S. Public Health Service, is on his way to this area with sanitary men to aid us in the work.

"Thus far the morbidity from communicable diseases has been relatively low, the most common disease in camps being measles. It has been difficult to secure universal typhoid inoculations among the people of the towns and we may expect cases of typhoid among some of those not protected. Emergency hospitals have been established in churches and elsewhere as needed, and sick calls in camps have been regularly held. Every effort is being exercised to isolate promptly communicable disease cases.

"In several towns of the area our problem has now become complicated by the terrible results of the cyclone which in certain instances even wiped out entire families, completely demolishing houses, and causing untold suffering and tremendous loss of both life and property. To describe the situation in a few of the towns in my own district is beyond my power.

"But there is another side to the situation which is more hopeful. As a result of this great immunization campaign thousands are being protected from typhoid and smallpox. Public health is being discussed and promoted as never before. Citizens are recognizing that the health problem is one of the greatest factors of the rehabilitation program.

(*Continued on page 696*)



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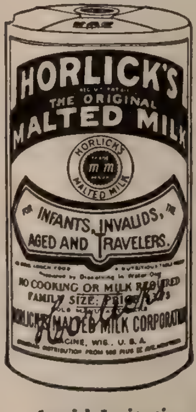
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(Continued from page 695)

"To meet the emergency situation there have been organized in the various counties Citizens' Relief Committees, made up of the leading citizens of the community. In the counties of this district we are proceeding as rapidly as possible to perfect permanent health organizations with modern programs for the future by converting these committees into Citizens' Health Advisory Committees to the health officer. It is anticipated that through such organization public health work will advance more rapidly than heretofore.

"The work everywhere has been most enjoyable because of the high type of citizens engaged in committee work and their excellent spirit of cooperation."

COST OF THE OHIO STATE MEDICAL JOURNAL

The annual report of the treasurer of the Ohio State Medical Association is contained in the May issue of the Medical Journal of the Association. The financial reports of the Journal is as follows:

Revenue:			
Advertising		$13,962.84	
Less — Commissions	$1,222.98		
Cash Discount	393.83	1,616.81	
			$12,346.03
Appropriation			2,000.00
Miscellaneous			44.25
Interest			100.00
Bad Debts Collected			49.87
Total Revenue			$14,540.15
Expenses:			
Journal Printing			$10,929.48
Office Salaries			3,700.00
Rent			975.00
Journal Postage			489.31
Journal Envelopes			466.23
Telephone and Telegraph			210.41
Office Supplies			182.99
Bad Debts			163.50
Depreciation			92.45
Magazines and Periodicals			78.83
Repairs and Cleaning			90.92
News Clipping Service			78.00
Water, Ice and Towel Service			51.12
Stationery and Printing			48.45
Insurance			46.50
Halftones and etchings			43.51
Stencils and Mimeograph Supplies			23.22
Miscellaneous			57.25
Express and Delivery Service			9.65
Total Expenses			$17,736.82
Expenses in Excess of Revenue for year ended December 31, 1926			3,196.67

There is an item of $2,000.00 appropriated from the general treasury toward the expenses of the Journal; and at the end the balance shows that the expenses of the Journal are $3,196.67 in excess of the revenues. Therefore the actual deficit is $5,196.67.

The financial statements of many of the State Medical Societies are obscure. The members would like to know where the societies stand financially; and if the information was given simply and fully there would be more interest shown in the society by both the officers and the great mass of members.

FOREIGN BODIES IN THE CORNEA

Dr. Ray H. Fisher, of Rigby, Idaho, has the following article in the April issue of Northwest Medicine, telling how to remove foreign bodies from the cornea.--Editor's Note.

"It is a common thing for patients to consult you with foreign bodies in the cornea. You will find the removal of these bodies listed as a separate and distinct operation in the fee schedules of the industrial accident board. When a patient gets something in his eye he hurries to get it out, especially if it is imbedded in the cornea. He has learned that he cannot get it out at home because the cornea is sensitive and the foreign body is small and hard to see or move. In the office the procedure is comparatively simple, provided you have good light and the patient is in good position.

"Fifteen dollars will buy a suitable specialist's goose neck lamp, which every medical man should have. This is important for the removal of these foreign bodies. Also if you can afford fifty dollars for a specialist's chair, it is worth far more than that, even to the country practitioner. The object is to have the patient in a semiprone position, at ease and so placed that you may bend over him. Cocaine is imperative. Instill a liberal amount of 4 per cent. solution. If you desire to use a lid retractor to give free access to the corneal field, do so, but this procedure is usually not necessary.

"You are now ready to remove the foreign body. I assume that you have cleaned your hands well, for this is a surgical procedure of mportance and responsibility and only aseptic echnic should prevail, lest a traumatic corneal ulcer, the very thing we are hoping to avoid, will be the result. Many do not have a suitable instrument for this delicate piece of surgery. Nine-tenths of the eye-spuds and nstruments sold for this purpose are useless, and many of them are positively harmful. They are clumsy, too wide and too thick on

(*Continued on page* 698)

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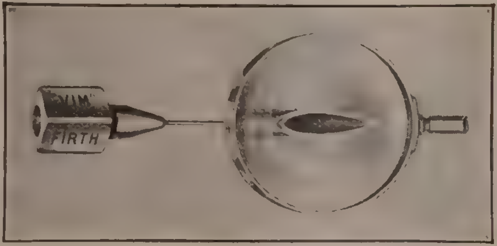

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(*Continued from page* 697)

the point, and are often too rough. They will do nicely for a foreign body lying just on the corneal surface. However, for the imbedded body a fine pointed instrument is best, like a cystotome used in cataract operations.

"While standing over the patient have him move the eyeball until the foreign body is in the most accessible position. Then tell him to keep his vision fixed on the object he is looking at, and with the instrument directed toward the corneal margin and away from the pupil, lift the body out, doing as little damage to the cornea as possible. There are many deeply imbedded bodies which are difficult to remove and much trauma will be done to the cornea during the procedure. It may even become perforated, if the operator is not careful. That is why I say a good light, proper position for the patient and operator, sufficient cocaine and proper instrument are important.

"If you have had difficulty and can see you have caused quite a little abrasion to the cornea, regard the case as a potential traumatic ulcer and begin treatment at once. Instill atropine, 1 per cent. solution. Always explain the effect of both cocaine and atropine to the patient so he will not think he is going blind because of his failure temporarily to accommodate. Follow the atropine with 15 per cent. fresh argyrol solution and cover the eye with a hard eye shield. Do not use cotton and tape, as the eye needs rest and these only irritate. Use instead the shield of which the real hard kind is the only one of merit, its advantage being that it does not press upon the eye or limit its movements. This is one place where argyrol is of merit, i.e., in an acute or likely acute inflammation. It is of no value in most eye inflammations of a subacute or more chronic nature. Have the argyrol instilled every two hours for two or three days.

"By this time the danger of ulceration is usually over. The denuded corneal tissue is rapidly replaced and there are no untoward effects. The effect of the atropine has now worn off and vision is normal.

"For these apparently little jobs demand a decent fee. Dignify surgery, and do not be afraid to put a respectable premium on your training and skill. Remember this is a procedure the layman or the chiropractor cannot do. A hundred rubs on the back or the "backside" by a chiropractor will not remove a foreign body from the cornea."

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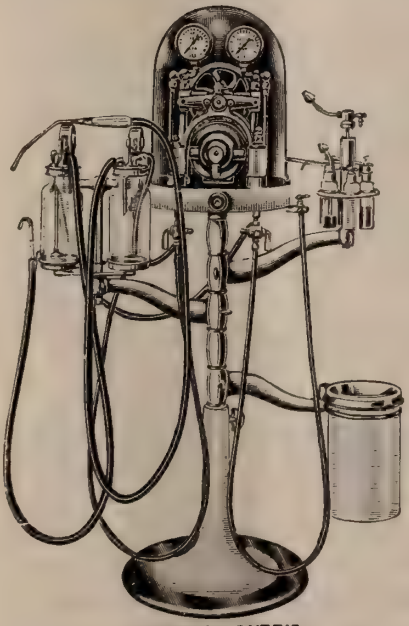

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URINE EXAMINATIONS

The Long Island Medical Journal is running a series of practical short papers on Urological Topics by Dr. N. P. Rathbun. The May issue contains the following article on Urine Examinations. — Editor's Note.

"I believe it is the custom of most doctors to have all of their urine examinations made at a laboratory. I think this is good practice because the busy practitioner has neither the time nor the equipment to make many of the quantitative tests such as urea and chlorides that are regularly made in the well-equipped laboratory.

"I submit, however, that if the practitioner will supplement this with frequent personal examination, requiring only the most rudimentary equipment, that he will be well repaid for his trouble, particularly if he has in mind that it is one of his functions to take the first step in a diagnosis of surgical as well as medical lesions of the urinary tract.

"Don't be content with boiling a few drams of urine in a test tube with and without the addition of a few drams of Fehlings solution. These tests are perfectly all right and they have a definite place, but they don't entirely fill the bill. Yet I'm afraid that this often constitutes the sum total of what is usually spoken of as an office examination.

"As a starter, a simple inspection of a freshly voided specimen may yield much valuable information. Freshly voided urine should be perfectly clear and mildly acid in reaction. Any departure from this demands an answer. I would suggest that the doctor acquire the habit of doing a two-glass urine test on all of his male patients. This simple test is based on the fact that the first gush of urine washes out the anterior urethra and that any abnormal elements contained in the first glass represent pathology in the anterior urethra, whereas the second glass voided after the automatic irrigation of the urethra represents urine as it exists in the bladder. In other words, it practically amounts to a simple way of getting a catheterized specimen from the male bladder. If such a test is employed on a given patient and we find the first glass slightly turbid and containing shreds, while the second glass is clear, we are obviously dealing with a chronic anterior urethritis. If such a patient submits a casual or A. M. mixed specimen to a laboratory the report will come back, among other things, 'trace of albumen, numerous pus cells,' perhaps even 'an occasional hyaline cast.' Not infrequently a diagnosis of nephritis is based upon such findings and I have known a number of perfectly good 'risks' who were rejected by insurance companies for the same reason. This is obviously a gross error and one easily avoided if the doctor 'did' his own urine.

"One of the most frequent causes of cloudy urine is phosphaturia. The cloud of course could appear in both glasses and the diagnosis is readily made with a few drops of any strong acid. A persistent cloudy second glass, if phosphates are excluded, is positive evidence of some surgical pathology in the upper urinary tract and demands further investigation, The contents of the second glass should be the portion selected for routine examination, which should include not only the routine boiling tests but the microscope as well. It takes only a moment, and let me say for the man who has gotten out of the habit of using a microscope, it is primary stuff and easily reacquired. A few casts, a few R. B. C., an occasional clump of pus cells, may suggest a more careful laboratory examination, including special stains, animal inoculation, etc., and be the first step toward an early diagnosis that might otherwise be easily missed."

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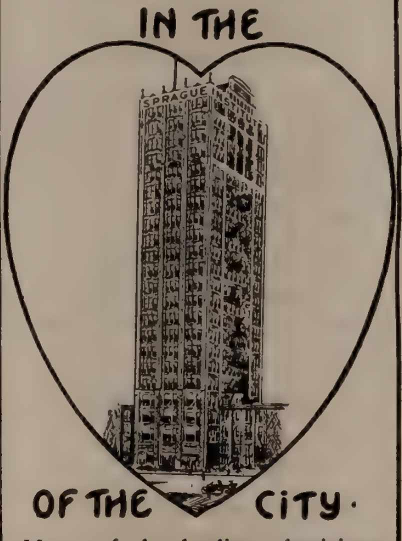

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PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

VOL. 27, No. 13 NEW YORK, N. Y. JULY 1, 1927

NEUROSURGERY IN THE NEWBORN AND CHILDREN*

By WILLIAM SHARPE, M.D., NEW YORK, N. Y.

SURGICAL conditions of the nervous system in the newborn and children may be listed in their order of frequency as follows: Acute brain injuries in children, intracranial hemorrhage in the newborn, brachial birth paralysis, hydrocaphalus and spina bifida. Tumors of the brain occur much more frequently than of the spinal cord, but they are both rare conditions compared with the above lesions and will therefore be merely mentioned in this report.

1. *Acute Brain Injuries in Children.*—In my series of cases, the automobile is the common cause of the cranial injury to the child playing in the street and the next most common cause is the falling of the child upon its head from a height of apparently trivial extent, usually two or three feet but upon a hard pavement or curb. Such bumps upon the head of a severity to produce unconsciousness and necessitating the child being placed in bed or being brought to the hospital are usually of the type designated as "concussion," with apparently no organic change in brain tissue; fracture of the skull may or may not be present. Upon admission to the hospital of a child having had a cranial injury, if shock is present, then the treatment should be directed toward this general condition of shock—typically a subnormal temperature and blood pressure but an increased pulse and respiration rate; extensive neurological examinations, roentgenograms, et cetera, should be postponed as they will not improve the condition of shock and all treatment should be directed toward overcoming the shock. f the patient can survive this condition of initial hock, then the routine neurological examinations, X-rays, ophthalmoscopic and spinal puncture ests, et cetera, can be performed to obtain an accurate opinion of the intracranial status.

The expectant palliative treatment of warmth, quiet, ice helmet, dehydration by salines, spinal drainage by repeated lumbar punctures, et cetera, has been successful in 71% of these patients, and t is only in 16% of the entire series of 217 cases hat a cranial drainage by decompression was indicated and performed. The advisability of the operative treatment of these acute conditions in adults is practically twice as common (29%) as it is in children and this is due, in my opinion, to the greater frequency and danger of acute traumatic cerebral adema in adults—not only to life but to future normality.[1] The operative treatment of cranial drainage was instituted only after the expectant palliative method failed in lowering the high intracranial pressure as estimated by the spinal mercurial manometer—whether this increased pressure has been due to cerebral hemorrhage or to cerebral edema alone. Never should the operative treatment be advised during the initial period of shock as the operation is but an added shock to the patient, nor during the terminal period of medullary edema, clinically pictured by rapidly rising temperature, pulse and respiration rates and a falling blood pressure; these patients all die and a cranial operation merely hastens the end.

2. *Intracranial Hemorrhage at Birth.*—It is only within the past five years that cerebral birth hemorrhage of varying degree has been proven to occur such more frequently than was ever conceived; Schwartz[2] of Berlin has stated that "the pathology of the first month of life is completely dominated by the birth injuries of the brain"; Fischer[3] of Basel has written that his postmortem observations at the Institute have convinced him that "the 10% of deaths during the first month are chiefly due to cerebral birth injuries"; and Huenekens,[4] in a recent article says that "the recognition of cerebral hemorrhage of the new born is a most neglected phase in their care and yet it is a most important one." In my series of 500 consecutive newborn babies irrespective of the type of labor and upon whom a lumbar puncture was performed within 24-48 hours after birth by Doctors Maclaire and Espejo,(5) at the City Hospital, New York, 45 babies (9 %) had bloody or blood-tinged cerebrospinal fluid; repeated lumbar punctures of spinal drainage were sufficient to aid the normal absorption of the blood so that the cerebrospinal fluid became clear and under normal pressure;

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* Read at the Annual Meeting of the Medical Society of the tate of New York, at Niagara Falls, May 11, 1927.

three of the babies in this series died and necropsy revealed extensive intracanial hemorrhage, supracortical and basilar.

The clinical signs in the severe cases of extensive hemorrhage at birth may be unusual drowsiness to stupor, difficulty to refusal to nurse and muscular twitchings of the fingers and of either orbit and a clenching of the hands associated with a stiffness of the arms and legs even to the degree of generalized convulsive seizures. The clinical signs of milder degrees of cerebral birth hemorrhage may be most meagre and even apparently absent and unless a diagnostic lumbar puncture is performed, then the condition might pass unrecognized—and until recently in my experience, the lesion may not even be suspected. Fortunately in these milder cases, the natural means of absorption of the cerebrospinal fluid may "take care of" all of the free blood in the fluid so that no layer of clot remains upon the cerebral cortex or at the base and these are the cases that can and do develop normally, both mentally and physically. But if the amount of intracranial hemorrhage is larger than can be entirely absorbed by the natural means of absorption of the cerebrospinal fluid and yet the hemorrhage is not of sufficient amount to cause the death of the child, these are the cases for whom repeated lumbar punctures of spinal drainage may be of the greatest value in aiding its complete absorption, so that no organization-residue of unabsorbed hemorrhage remains to retard the normal development of the child. Unfortunately, the number of chronic cases of cerebral spastic paralysis upon whom a post-morten examination confirms the diagnosis of cerebral birth hemorrhage indicates that this early treatment of the acute condition at birth when the fluid blood can be drained, is only too rarely used.[6]

In a large series of chronic cases of cerebral birth hemorrhage, they have usually been first born males at term, the labor difficult, with or without the use of instruments and especially following medium forceps and version with breech extraction; during the first week, drowsiness with difficulty in nursing and signs of cortical irritability; a gradual improvement after ten days until at one month the child is usually considered normal and so remains until the child does not hold up its head nor sit up within the normal period of time, the spasticity of legs or arms most frequently being observed during the seventh to the ninth month; the later retardation in walking and talking completes the clinical picture of the chronic condition when an improvement at most is only possible by any known method of treatment. As in acute brain injuries in children, the ideal time for treatment is during the acute stage at birth when the blood is in fluid form and can be drained and not months and years later. In my opinion, the lumbar puncture is the only accurate diagnostic method for the acute condition of intracranial hemorrhage at birth and repeated lumbar punctures of spinal drainage are most valuable in its treatment.

3. *Hydrocephalus.*—In the diagnosis of hydrocephalus, it has been my experience that the complete blockage of the cerebrospinal fluid from the ventricles to produce the internal type of this condition is a relatively rare one and over three-fourths of the cases in children in my series diagnosed as hydrocephalus are of the external type—the ventricles not being blocked and therefore not dilated; thus in the external type of hydrocephalus, the normal channels of excretion of the cerebrospinal fluid through the walls of the supracortical veins, Pacchionian villi, etc., have become blocked by the organized new tissue formation of former meningitic exudate or of unabsorbed intracranial hemorrhage occurring most probably at the time of birth.[7] Even the internal type of hydrocephalus may be due to unabsorbed basilar hemorrhage and in several cases of my series upon whom diagnostic lumbar punctures revealed bloody cerebrospinal fluid at the time of birth, after a period of several weeks the condition of internal hydrocephalus has developed and in two of these cases at necropsy, the organization-residue of unabsorbed hemorrhage was found blocking the escape of cerebrospinal fluid at the foramina of Majendie and Luschka of the fourth ventricle. It is indeed fortunate that this condition of complete ventricular blockage is the uncommon type of hydrocephalus as its successful treatment is the most discouraging in neurosurgery—100 per cent failures in my series of cases; on the contrary, the successful drainage of the common external type of hydrocephalus is most encouraging—the end result depending entirely upon the etiological factor of meningitis or hemorrhage and upon its early diagnosis; to wait until the increased intracranial pressure produces tense, bulging fontanelles and finally an enlargement of the head before the diagnosis is suspected is to permit these cases due to unabsorbed hemorrhage to become permanently damaged by the prolonged increase of the intracranial pressure and thus the end result is at best merely an improvement. Early ophthalmoscopic examinations and the use of the mercurial manometer at lumbar puncture are most valuable aids in the early recognition of these conditions.

4. *Spina Bifida and Meningocele.*—No longer is the condition of spina bifida and meningocele considered as being similar to hair-lip and cleft palate—i.e., a mere defect in the coverings of the central nervous system.[8] In 86 per cent of my cases, there has been demonstrated an increased intracranial pressure even in the presence of the meningocelic protrusion and at operation or at necropsy the findings in varying degree over the cerebral and spinal cortices of organized new tissue formation of former meningitic exudate that had occurred most probably before the firm

closure of the cranial and spinal canal; in this manner resulted a partial blockage in the normal excretion of the cerebrospinal fluid through the walls of the supracortical veins, villi, et cetera, so that the subsequent increased intracranial pressure, in reality an external hydrocephalus, produced a protrusion of varying degree of the meninges at the site of weakest closure of the cranial or spinal canal—usually in the posterior midline of the head, the cervical area of the spine and, most frequently of all, in the lumbar vertebrae. Confirmatory evidence of the increased intracranial pressure in these cases is the frequent association of the spina befida protrusion with external hydrocephalus of a degree sufficient to enlarge the head; in 47 per cent of my cases there was this clinical combination of spina bifida and hydrocephalus. Also the common observation that upon repairing the meningocelic protrusion of spina bifida alone, very often the condition of external hydrocephalus develops within three to six months; this has occurred in 58 per cent of my cases of spina bifida operated upon, so that during the past five years I have always emphasized to parents this possible complication following the operative repair of the spina bifida and the necessity for early cranial drainage if the condition of hydrocephalus should develop later. It is very probable in these cases that the protruding sac of the spina bifida has permitted the absorption of sufficient amount of the partially blocked cerebrospinal fluid to avoid a marked increase of the intracranial pressure and then after the removal of this absorptive area in the operative repair of the spina bifida, there is no longer the escape for the blocked cerebrospinal fluid so that an increasing intracranial pressure develops; if not relieved, then the gradual enlargement of the head until clinically the diagnosis of hydrocephalus is only too evident. In several of these cases, I have had the opportunity of performing repeated lumbar punctures before the operative repair of the spina bifida and then at intervals following the operation and thus to be able to observe accurately the definite rise of pressure of the cerebrospinal fluid by means of the mercurial manometer until finally the increased pressure began to enlarge the head. Naturally, no longer are these patients permitted to wait until the head becomes enlarged before the diagnosis of hydrocephalus is made and the appropriate treatment instituted early. In this connection of increased intracranial pressure and its casual relationship to spina bifida and hydrocephalus, many observers have noted that as long as the leakage of cerebrospinal fluid from the spina bifida continues, rarely does the condition of hydrocephalus occur, but whenever the spinal bifidal sac closed and the area became dry, then the great danger of the complication of hydrocephalus. Chiefly for this reason, it has usually been advised in the past to delay any operative repair of the spina bifida for a period of weeks and even months following birth in the hope that the complication of hydrocephalus might be avoided—even at the risk of permanent impairment of the legs due to connective tissue contraction at the site of the spina bifida. In my experience, the best results have been obtained in the cases of spina bifida repaired within the first three months after birth, being most careful to observe the intracranial pressure of the child at least once a month following the operation by means of ophthalmoscopic examinations and lumbar puncture tests until the child has apparently passed the danger of this complication; in one of my patients, however, hydrocephalus developed as late as thirteen months after the repair of the spina bifida.

5. *Brachial Birth Paralysis.*—A flaccid paralysis of varying degree of one and rarely of both arms, observed within the first two days after birth and in the absence of temperature, can usually be definitely diagnosed as trauma to the brachial plexus. The lesion is most frequently a simple overstretching of one or more of the five nerve trunks of the brachial plexus due to the forceful torsion of the head in the difficulty of delivering the after-coming shoulder; therefore, the upper branches of the plexus are more commonly involved, resulting in the upper arm type of brachial palsy with the hand and fingers unimpaired. These milder cases of physiologic over-stretching even to the degree of torn fibres within the nerve sheath usually improve rapidly so that within one to three months the arm is being freely moved. On the contrary, if the overstretching of any portion of the brachial plexus has been of a severity to produce a hiatus of its fibres and particularly of an entire nerve trunk, then a marked recovery of function is very doubtful—depending entirely upon unobstructed nerve regeneration. In those cases of complete separation of the nerve ends, it is indeed doubtful if many recover function spontaneously owing to the interposition of adjacent tissues and especially of organized unabsorbed hemorrhage. It is my belief that there are many cases of simple overstretching of the brachial plexus with no loss of continuity that would have made excellent recovery of function if the associated hemorrhage about the nerves of the plexus had been entirely absorbed; the formation of fibrous tissue of unabsorbed hemorrhage compressing the intact nerves is a common operative finding and thus prevents normal nerve conduction after the effects of the simple overstretching should have disappeared. The fact that the deep cervical fascia overlying the plexus is seldom torn in these cases naturally prevents the escape of this free blood into the tissues of the neck and thus lessens its absorption and increases the danger of resulting fibrous tissue compression of the plexus itself.

Fortunately, the vast majority of cases of brachial birth palsy make excellent recovery of function within three months after birth, with and without any special treatment other than the routine massage and exercises (being most careful to avoid any tension and depression upon the shoulder), the use of the aeroplane splint of abduction and external rotation of the upper arm, et cetera. Those patients, however, that do not improve markedly during the first three months and especially the ones still impaired at six months after birth, should have the benefit of a small skin incision over the plexus in order that the nerves may be inspected and any lesion repaired early—and not months and even years later when muscular contractures and deformities have occurred and when the best result possible is an improved arm. Even with early operation and a successful anastomosis of the nerves, never can a normal arm in all respects be obtained, but the earlier the lesion is repaired, just so much better is the end result.[9]

In conclusion, permit me to emphasize again the importance of early diagnostic lumbar puncture and the great therapeutic value of repeated lumbar punctures of spinal drainage in many of the neurosurgical conditions affecting the newborn and children. Using the mercurial manometer to estimate accurately the pressure of the cerebrospinal fluid and never withdrawing an amount of fluid sufficient to lower this pressure more than one-half, no longer is this method of diagnosis and drainage a procedure of last resort. To permit patients, adults as well as the newborn and children, to die or to become permanently impaired by a prolonged increase of the intracranial pressure upon the brain without ascertaining early and accurately the intracranial status by this method, cannot be too strongly condemned.

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THE TREATMENT OF PLACENTA PREVIA*

By ROSS McPHERSON, M.D., F.A.C.S., NEW YORK, N. Y.

THE treatment of the type of obstetrical complication known as placenta previa, or in other words, the pregnancy case where the placenta has its uterine attachment low down on the uterine wall, either partially or nearly entirely covering the os uteri, is one which apparently never ceases to be an active subject for discussion and argument on the part of the obstetrician. In general, the maternal and foetal mortality is so high, complications so numerous, and the opinions of various experts as to the proper method of procedure are so varied that at times it seems as if we had reached a point in this particular abnormality where we were at a dead centre and improvement hard to obtain.

If we follow the method employed in the Tuebingen Clinic, reported in the *Archiv. für Gynaekologie* (1923, cxviii, 120) by Gaenssle, we have a perspective founded on the analysis of 186 cases. Ninety-three of these were treated by vaginal route with a maternal and foetal mortality of 8.6 per cent and 54 per cent respectively. Ninety-three were treated by abdominal Caesarean section with a maternal and foetal mortality of 6.4 per cent and 6.4 per cent respectively, surely a striking difference in the foetal and an improvement in the maternal mortality.

Bonwer in the *Nederlandsch Monadschrift voor Geneesbunde* (1924, xii, 269) reports .6 per cent maternal and 17.5 per cent fetal mortality for placenta previas where Caesarean section was performed, as opposed to a considerably higher maternal and a much higher foetal mortality running where the Braxton Hicks method was employed as high as 77.8 per cent.

Schoenholz reporting from the Dusseldorf Clinic (*Monatsschrift für Geburtschulfe und Gynakologie*, 1924, cxv, 112) quotes a maternal mortality of 2.08 per cent and a fetal mortality of 6.5 per cent where Caesarean section was employed. These reports are but a few of several all tending to show that the employment of Caesarean section offers the best chance for the life of the child and mother in the occurrence of placenta previa.

Kellogg of Boston (*American Journal of Obstetrics and Gynecology*, Vol. XI, No. 2, pp. 194-) states that while in 1915-1920, the maternal mortality at the Boston Lying-In Hospital had dropped to 6 per cent where conservative methods were used, that in the next five year period, with the same treatment it had risen to 10.5 per cent and that the fetal mortality had risen also. He concludes that the more frequent employment of Caesarean section in central and partial placenta previas is warranted.

It will thus be seen that there is a distinct tendency on the part of many operators to consider abdominal section in this condition. To the reader, however, this somewhat arbitrary settlement of a very complicated condition is not quite satisfactory, and he believes in this as in many other obstetrical conditions that we cannot generalize too much but must consider *each case* as *an entity*, the treatment elected to correspond to the conditions presenting themselves both as regards mother and child at the time, and that to say that *all* cases of placenta previa centralis, for example, should be subjected to an abdominal section, is just as fallacious as to say that *none* should. When the obstetrician can learn the lesson of individualizing his cases and not generalizing them, he will have gone a long way in the reduction of these mortality and morbidity figures.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

With regard to the reader's cases, I should like with your permission, to quote rather extensively from an article read by me on the treatment of Placenta Previa at the annual meeting of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons at Philadelphia, in September, 1923, which represents my personal feelings today as well as it did at that time, and will serve to present the subject for your discussion.

"In the first place, for the purpose of studying results, it seems to me that the cases of placenta previa should be divided in two groups: the first, those in which there is a viable child; and the second, those in which the previa is discovered so early in the pregnancy that the possibility of a living child is not to be considered, or only secondarily.

"With this broad classification approved, the methods of treatment generally in vogue may be considered. The diagnosis being established by the ordinary signs and symptoms, familiar to all, the methods presenting are: packing the lower uterine segment, cervix and vagina with gauze, leaving it *in situ* sufficiently long to cause active labor pains and dilatation of the cervix, at the same time controlling the hemorrhage; introduction of a Vorhees bag designed to accomplish the same purpose; where sufficient dilatation already exists, rupturing the membranes, followed or not as the case may warrant, by the bringing down of the leg and allowing the labor to proceed; lastly the method of abdominal section.

"All of these procedures have their advocates and undoubtedly all of them have their place, but which method is to be applied to the individual case, is the problem which demands attention. A careful survey of the published figures of various authors, shows that there is a maternal mortality of from 5 to 20 per cent, with a foetal mortality ranging from 6.5 to 80 per cent.

"In December, 1907, I presented a series of two hundred and fifty cases from the wards of the New York Lying-In Hospital in which the maternal mortality was 18 per cent and the stillbirth mortality was 44.4 per cent. In the last five hundred and ninety-one cases on the same service, seventy mothers died, a mortality of 12.1 per cent, with a stillbirth mortality of about 42 per cent. A considerable improvement in the maternal mortality, but only a very slight one in that of children. Again many of the children died within the first few days, due to prematurity, for in the five hundred and ninety-one cases three hundred and seven or more than half the total, were premature.

"In my recent series already mentioned, the preference in treatment was given to gauze packing, followed in most instances by an internal podalic version, this being done in 354 out of 591 cases. There were 34 abdominal Caesarean sections, two extraperitoneal Caesarean sections, three vaginal hysterectomies, 20 Braxton-Hicks operations, 43 breech extractions and 22 craniotomies on dead children, the rest being made up of forceps and normal deliveries. The resultant mortality to the mother, as already stated was 12.1 per cent with a stillbirth mortality of 42 per cent. One hundred and seven children, born alive, died before leaving the hospital, or about 18 per cent, a total foetal mortality of slightly over 60 per cent.

"Granting that in many instances, perhaps in the greater proportion, the mothers were greatly exsanguinated on entrance to the hospital, that the children were premature or not alive when first seen, all of which conditions must necessarily prevail in an acute service, it will be well to observe from experience what seems to be the most satisfactory way of handling these cases.

"No one thing has contributed more to the successful issue in placenta previa, as far as the mother is concerned, than the practice of blood transfusion, so that in all cases as soon as the diagnosis is established, the mother should be grouped as to her blood and a satisfactory donor obtained whose presence should be maintained within easy reaching distance until the necessity for his or her services is no longer needed for the patient. The factor of time in giving a transfusion is of the utmost importance, as well as that of proper technic, and it follows then, as a matter of course, that the patient should be in a well equipped hospital which in these days is practically always available.

"Having made the diagnosis, *immediate treatment* should be instituted without procrastination, and one of the recognized methods of operation employed. From my experience and the reports of others, it would seem that if the patient has an undilated or slightly dilated cervix, is at term or nearly so and has a living child, that an abdominal Caesarean section rapidly performed by a competent operator offers the best solution for mother and child, this applying to primipara multipara alike. If the patient is in fair condition when first seen, and has not been infected by injudicious manipulation, the ensuing result should vary little from that of similar operation done for some other indication. If, on the other hand, the child be dead or nonviable, one of the other less drastic means of delivery may be employed, and of these in general I am inclined to favor tamponade with iodoform gauze strips. This will, in practically all instances, control the hemorrhage, especially if the membranes are first ruptured; it stimulates labor pains, causing dilatation of the cervix, stays where it is put until removed by the operator, which is not always the case with hydrostatic bags, and if applied under aseptic conditions, is, in my opinion, not as potent a source of infection as commonly believed. Iodoform is used in preference to plain gauze because it resists putrefaction longer than plain gauze, and if packed tightly rarely gives rise to iodine poisoning. The gauze should be firmly packed as far up as it will go into the uterine cavity, the cervix filled, as well as the vaginal fornices, and the vagina. Such a pack in nearly every instance thoroughly controls hemorrhage and may be left *in situ* for a considerable time without cause for worry.

"When the patient has had hard contractions for some time and it is judged that the cervix is sufficiently dilated to allow the extraction of the child, she may be placed on the operating table, an anesthetic administered, under the best aseptic precautions, the packing removed and the extraction proceeded with in the manner chosen by the operator. I usually remove the placenta manually and repack the uterus. Care should be taken not to handle the cervix more roughly than necessary, as in these cases it is very friable and more apt to tear, thus promoting hemorrhage and subsequent infection. A transfusion should be ready at the time of delivery and if there is any doubt at all of its necessity, it should be given without delay. Pituitrin and ergot may be used after delivery and uterine packing to aid in contracting the uterus.

"I believe that most of the maternal mortality in placenta previa is due to delay in diagnosis of the condition, accompanied by tardiness in treatment, combined with careless manipulation and resultant infection, all of which are preventable and inexcusable. If these factors are eliminated, as they can be, the results for the mother should be much improved and a patient will rarely be lost. Regarding the foetal mortality, so much cannot be said, as the greater majority of the children are so premature that little can be done to save them even if born alive. Caesarean section on the viable fetus, does offer a means of lowering this mortality to an appreciable degree and should be employed in this class of cases more frequently."

UNDULANT FEVER IN CATTARAUGUS COUNTY — REPORT OF A CASE*

By MYRON E. FISHER, M.D., DELEVAN, N. Y.
JOSEPH P. GAREN, M.D., OLEAN, N. Y.

RECENTLY a number of cases of Undulant Fever have been reported, and evidence is accumulating to the effect that the disease is more frequent and widespread than commonly supposed. Although the clinical picture and laboratory findings differ from those of typhoid fever, it is reasonable to assume that many cases, diagnosed and treated as typhoid fever, are actually cases of infection with Brucella Abortus or Brucella Melitensis.

Carpenter and Merriam[1] report two cases of Undulant Fever, due to Brucella Abortus, occurring in Ithaca in 1925. Recently Carpenter[2] has seen a third case in Ithaca. In addition many infections have been reported by other observers.

The widespread distribution of infection with Brucella Abortus in cattle and other farm animals together with the acceptance of the knowledge that Brucella Abortus is under certain conditions pathogenic for man, renders it necessary to consider the possibility of infection with Brucella Abortus in the differential diagnosis of fevers of long duration.

REPORT OF A CASE

E. F., a farmer, aged 23, past history irrelevant, had enjoyed general good health until the beginning of the present illness. He had never been outside New York State, and for the past year had been to but few nearby places. About February 27, he began to feel sick. He tired easily, and felt feverish and chilly by turns. By March 6, he felt too ill to remain up, and called a physician. His temperature on this date was 103. From this time on accurate temperature records were kept. The afternoon temperature each day was between 103 and 104, and the morning temperature 99. Careful physical examination by the attending physician was quite negative. Examinations of the head and neck showed no abnormality. The lungs and heart were normal. There was no enlargement of the lymph glands, and the spleen was not palpable. No eruption was noted on any part of the body. The pulse was strong, with a rate ranging from 80 to 90, and markedly dicrotic (this characteristic persisted over a period of three weeks). There was diarrhoea for a considerable part of the time. The patient complained of headache a great deal. There were chilly periods during the day, and profuse sweats each night.

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* Read at the meeting of the Cattaraugus County Medical Society, May 17, 1927.

[1] Carpenter, C. M., aud Merriam, H. E.: Undulant Fever from Brucella Abortus, J.A.M.A., 87:1269 (Oct. 16) 1926.

[2] Carpenter, C. M.: private communication

Typhoid fever was considered in the diagnosis. A specimen of feces examined March 14, was negative for organisms of the typhoid-paratyphoid group. On March 19, serum was obtained for agglutination against typhoid organisms. A blood culture in dextrose broth was made, and a blood smear prepared. No counts of leucocytes or erythrocytes were made. The blood culture was incubated for two days, and examined daily. Results of the examination were negative, and the culture was then, unfortunately, discarded. Tests with the serum against typhoid and paratyphoid organisms were completely negative. Examination of the blood smear showed normally staining red blood cells. A differential count of the leucocytes gave the following: neutrophiles, 59 per cent; eosinophiles, 1 per cent; basophiles, 2 per cent; lymphocytes, 21 per cent; large monos, 17 per cent.

In view of the paucity of physical findings, and the negative agglutination tests in the third week of the disease, the likelihood of typhoid and paratyphoid fever was then discounted, and thought given to the more unusual causes of continued fever. Tularemia and Undulant fever were considered. The clinical course of the illness being more suggestive of Undulant fever, the balance of the serum remaining after the agglutination tests was submitted to the Division of Laboratories of the State Department of Health, with the request for tests against Brucella Abortus and Brucella Melitensis. The Laboratory reported positive results with their stock strain of B. Melitensis in dilutions as high as 1:320.

Due to difficulties of transportation to the patient, he was not again seen for purposes of laboratory study, until April 4. By this time he had somewhat recovered, and had been without fever for two days. It was interesting to note that, while the patient had the appearance of one who had been sick, he showed much less emaciation than would be expected after his long continued pyrexia. A blood culture was obtained from him at this time, and a specimen of blood for further agglutination studies. Inquiry brought out the fact that there had been an abortion among the cows on his farm late the preceding Fall, and several cases of abortion in the farm adjoining. Examination of the blood culture was negative. This was to be expected, however, since it was obtained late in the disease, and when the patient was afebrile. The blood for the agglutination studies was submitted to the laboratory of the State Veterinary College at Ithaca. This laboratory reported positive results with both B. Abortus and B. Melitensis, with agglutination in a titre 1:400 with the former, and 1:135 with the latter. Absorbtion of agglutinin tests were conducted, and demonstrated that the infection was due to B. Abortus.

On April 24 and 25, the patient again had fever, the afternoon temperature reaching 100. He was seen on April 26. A specimen of urine was obtained, in the hope that the organisms might yet be recovered. Guinea pigs were inoculated from this specimen, and are at present under observation.

The patient is at present nearly recovered, and able to be up and about. He has had no attacks of pyrexia since April 25.

Largely through the cooperation of the State Veterinary College studies have been made on the herd on the farm on which the patient lives. Of the 13 animals, 12 showed definite serological evidence of infection with B. Abortus. The strongest reaction was obtained in the cow whose milk was used solely by the patient and his family.

SUMMARY

In the serum of a patient with undulant pyrexia definite agglutination was obtained with B. Abortus and B. Melitensis, and agglutinin absorbtion tests have demonstrated B. Abortus infection. The disease has apparently run a self-limited course under expectant treatment. The history of the case bears out the idea that there is a connection between contagious abortion in cattle, and Undulant fever in man. Undulant fever, caused by B. Abortus, must be borne in mind by the physician in the diagnosis of obscure fevers of a duration of more than a few days.

OBSERVATIONS OF PATHOLOGICAL CONDITIONS AND DISTURBED FUNCTIONS OF THE SPECIAL SENSE ORGANS AND THEIR RELATION TO THE PSYCHOSES

By GEORGE E. DAVIS, M.D., NEW YORK, N. Y.

A LARGE experience at the Central Islip State Hospital for the Insane during the past eighteen years has been both interesting and instructive.

Pathological conditions and disturbed functions of the special sense organs affect the individual's psychic more profoundly, perhaps, than lesions and impaired functions of other parts of the organism. And this is a reasonable deduction when we consider the bearing that involvement of these special organs exert on the welfare and happiness of the individual. Stressing the above premises, however, should not render us unmindful that other somatic pathologic processes, even remote from these special organs, may exert a marked deleterious effect on the *mental equilibrium.* Particularly is this so as regards focal infections in whatever region located. "I am convinced that the somatic toxaemias frequently are potent contributing factors in developing many borderline cases of mental imbalance into full fledged psychoses. Like the last straw that breaks the camel's back they push the patient "over the top" into "no man's land"—or the realm of unreason. That accumulations of toxins from focal infections produce adverse effects on the physical condition is unquestioned and that they may precipitate a psychosis is plausible. Moreover, unless the infective foci are removed these attacks may be prolonged or repeated time and again.

In dealing with the physical we are all familiar with chronic toxic cases which periodically suffer sudden exaccerbations or explosions as in migraine, angina pectoris, neuritis, gout, etc., due in all probability to excess toxic accumulations. Reasoning from analogy, we may infer that the mind will be frequently and profoundly affected under similar conditions. But, *vice versa,* the psychic likewise affects physical phenomena and functions—as psychic blindness and deafness.

Pavloff and other investigators have shown that malfunctioning of other vital organs, aside from the special sense organs, may result from the stress of such wearing or overwhelming emotions as worry, fear, grief, envy, anger, etc. Perverted endocrine functions not infrequently ensue from emotional disurbances also.

In examining the insane, we are prone to rely on psychoanalysis to the exclusion of physical investigation; disposed to attribute all psychoses to some gradual, prolonged mental stress, else to some overwhelming emotional disturbance, rather than to somatic lesions or perverted body functions. Probably the somatic toxaemias and perverted endocrine functions play a greater role in the etiology of the psychoses than we imagine.

I have had no experience in endocrine therapy in the psychoses, but very extensive experience in removing foci of infection located in the ears, sinuses, tonsils, pharynx, etc., and am fully convinced that the elimination, surgically or otherwise, of somatic toxaemias facilitates the alleviation and, in some instances, the complete and permanent relief of these cases.

Here I wish to note a point worthy of record, i. e., with kind handling and some tact, the insane are unusually amenable and easily controlled during serious operations under *local anæsthesia.* Probably because they are not given to worry over results, convalescence is generally more prompt.

For the above reasons much of my surgical work is done under local anæsthesia with these patients; in fact, with the exception of mastoidectomies, practically all tonsil, sinus, septum, and plastic operations, even of a radical nature. In the hundreds of operations done under local anæsthesia it has been necessary only in one instance to resort to general anæsthesia to complete the work. Moreover, many of these cases are systematically septic from severe focal infections and it is well understood that very toxic patients do not tolerate general anæsthesia well. General anæsthesia is terrifying to nearly all the insane, therefore all the more reason for local anæsthesia in all cases where it can possibly be employed.

In conclusion I would state that it cannot be stressed too strongly that the diagnosis and treatment of the psychoses embrace a mutual consideration of the intimate interrelation and interaction of mind and body and we should conduct our investigations and therapy accordingly.

THE TREATMENT OF PNEUMONIA WITH OXYGEN

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UNTIL recent years, the use of oxygen in the treatment of pneumonia had been most unsatisfactory. Usually the patient was allowed to struggle for some days against a severe infection until marked cyanosis had developed. The oxygen tank was then rushed to the bedside, and a funnel was held over the patient's face for varying intervals of time. The termination was almost uniformly fatal, and the appearance of the oxygen tank at the bedside came to be regarded as a sign of impending dissolution. The difficulty lay, not in the soundness of the procedure, but in the method and the time of its application.

Most pneumonia patients battle against two foes, infection and anoxemia. Apart from the comparatively few cases that are amenable to specific sera, we have no means of directly overcoming the infection with its toxemia. The anoxemia, however, can be successfully relieved by properly applied oxygen therapy.

The arterial blood of a normal resting individual is nearly 100 per cent saturated with oxygen. With diminution in the per centage of oxygen saturation, the individual begins to show signs of oxygen want, and when the deficiency reaches 20 per cent, he suffers severely. The amount of cyanosis shown by an anoxemic patient quite closely parallels the degree of oxygen deficiency.

The harmful effects of anoxemia alone, without the addition of pneumococcus infection, are sufficiently serious to cause grave concern. The internal cell respiration and nutrition are interfered with, cell function becomes altered, and in oxygen sensitive tissues like the nervous system, cell degeneration can actually occur. The pneumonia patient therefore often fights his disease under a heavy handicap. The infection alone he might be able to subdue if given a fair chance, but infection plus anoxemia often prove too great a burden. The patient is like a mountain climber who is forced to attempt a lofty peak carrying a heavy pack, instead of going lightly clad.

One of the first things accomplished by the work of recent years has been the demonstration of the utter inadequacy of the funnel method. The oxygen diffuses into the surrounding air, and only negligible amounts are inhaled by the patient, with no therapeutic results. Barach[1] believe that the 21 per cent of oxygen in the inspired air must be raised to 30 per cent in order to be slightly effective. He considers 40 per cent the optimum concentration, although amounts up to 60 per cent are well tolerated. Higher concentration should not be administered for long periods.

At present we have at our disposal a number of methods of oxygen administration which give different degrees of effectiveness, and can be varied to suit the individual patient.

The nasal catheter method is ranked by Barach as slightly effective. A small rubber catheter, with four holes placed within the terminal inch, is passed along the inferior surface of the nasal cavity until it strikes the nasopharynx. It is then withdrawn one half inch, passed over the forehead, and fastened with adhesive plaster. If oxygen is bubbled vigorously, and the patient does not institute mouth breathing, a 30 per cent concentration may be reached. It is best to use high pressure tanks of commercial oxygen containing 110 or 220 cubic feet, such as are used by garages for oxyacetylene welding, rather than small tanks of low pressure medical oxygen. Commercial oxygen is equally suitable and much less expensive, an important point when administration is continued for long periods. The high pressure tank must be equipped with a suitable reducing or metering valve.

During the World War oxygen was frequently administered by means of a face mask, and various modifications of the method have been proposed. It is suitable for comatose, or apathetic patients, but those who are conscious often object to its use.

A rebreathing apparatus may be used, with soda lime to absorb the carbon dioxide. Barach recommends that a glass tube be fitted into one nostril and connected by appropriate tubing with the apparatus. The patient then breathes room air through one nostril and oxygen through the other. If nasal breathing is not satisfactory, a mouth-piece may be substituted.

Various types of oxygen tents have been devised in which patients breathe an oxygen rich atmosphere. Guedel[2] speaks highly of a simple tent made by cutting in two a barrel hoop of 24 to 30 inches diameter. The two halves are crossed and tied together in the center to make a frame which is roughly hemispherical. Over the frame, an ordinary muslin sheet is thrown and tucked in at the sides. A rubber tube leading from the oxygen tank, which is equipped with a metering valve, is led in through a small opening in the sheet. The latter should not be too thick or the patient will complain of heat. The method does not provide a window through which the patient may be watched, but is valuable for its simplicity and for its applicability either to home or hospital treatment.

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[1] Arch. Int. Med., xxxvii, 2, 186.

[2] J. A. Med. Ass'n., lxxxix, 1490.

Barach has devised a portable oxygen tent which presents many desirable features. The head and shoulders of the patient are enclosed by a tent of impervious material with windows through which the patient can be observed. Oxygen is circulated by a blower, with an ice chamber for cooling purposes, and soda lime to remove carbon dioxide. With the surrounding air at 96 F., the temperature inside can be kept at 72 F., and the oxygen concentration suitably adjusted. A high degree of comfort and efficiency can be obtained.

Finally, we have the oxygen chamber containing the patient in bed, where by the use of rather elaborate apparatus the air can be kept at any desired concentration of oxygen, and the temparature, moisture and carbon dioxide accurately controlled. Medical and nursing care are not interfered with. The chamber is ideal for patient and physician.

When should treatment be started? Just as soon as the first signs of anoxemia appear. Samples of arterial blood may be taken for accurate estimation of oxygen saturation, but practically the presence and degree of cyanosis are usually good guides. Occasionally an ashen gray color indicates anoxemia. Guedel advises that sufficient oxygen be given to keep the finger nails pink. Treatment should be continuous, subject to necessary interruptions for medical and nursing care and may have to be kept up for several days. Where continuous treatment is impossible, the intermittent inhalation of oxygen is of some benefit. Favorable results are clearing of the cyanosis, slowing of pulse and respiration, improvement in the mental and nervous condition, and sometimes relief of dyspnea.

The following case of bronchopneumonia is cited merely as an illustration of method:

Mrs. G., aged 65, the mother of eight living children, has been somewhat short of breath since marriage. She has had frequent attacks of acute bronchitis and successfully overcame a severe pneumonia four years ago. The lips have been cyanotic for more than ten years, and disseminated fine moist rales have been present in both lungs for several years. In spite of this disability she has worked hard up to recent years and has enjoyed a fair degree of health.

Nov. 18, 1926, she was taken with a cough and general malaise, but kept up and about for a day or two. Fever developed with increased cough, shortness of breath and prostration. When I saw her on Nov. 23rd she was moderately dyspnic with definite cyanosis. The lungs showed no areas of dulness but presented numerous fine and medium moist rales from apices to bases. The rales were partly expiratory but mostly inspiratory, and in certain areas had a consonating quality. Over the cardiac area which was slightly enlarged to the left, a blowing systolic murmur could be heard. The second sound of the heart was not audible. The following day the patient appeared worse. Cyanosis of the lips, ears and fingers was very marked. The face had an ashen purplish color. Hospital treatment was advised and was reluctantly accepted by the patient. Upon entering the Syracuse Memorial Hospital the same day, oxygen treatment was at once started. A good sized cradle, such as is used to support the bed clothes in fracture cases, was adjusted about the patient's head and shoulders and a sheet thrown over it to make a tent. A rubber tube was led in from a high pressure oxygen tank and oxygen was allowed to bubble vigorously at the rate of five liters per minute. The patient soon became quiet and breathed more easily; the pulse was slower and stronger, and she showed definite improvement in color. Whenever the tent had to be thrown back to allow nourishment or medicine to be given, the cyanosis would return, but would again improve as soon as oxygen was started. At no time, however, were we able to overcome the cyanosis completely. The temperature averaged from 100° to 102°. The leucocyte count was 9,000 with 80 per cent polynuclears. The sputum showed a mixed infection with a few pneumococci of type IV.

The patient was at no time satisfied to be in the hospital and kept asking to be taken home. Oxygen treatment was continued night and day for 48 hours up to her departure from the hospital. Her condition had grown steadily worse and the afternoon of her last day in the hospital, Dr. I. H. Levy, who saw her with me, felt that a fatal issue was to be expected. She again asked to be taken home and the family, feeling that it might be her last wish, decided to gratify it. The oxygen apparatus was tranferred to the patient's home but she refused to have it used although she was intensely cyanotic after the ride home in the ambulance. Dr. J. J. Buettner was sent for and he succeeded in inducing her to inhale pure oxygen through an anesthetist's face mask. This was given for a few minutes at a time over a period of about an hour. Cyanosis would be replaced by a pink skin during oxygen inhalation but would return when it was stopped. During the night the nurse occasionally succeeded in giving concentrated oxygen at brief intervals.

The next morning, to our surprise, the patient seemed better and a recovery began which has been protracted but uninterrupted. The myocardium appeared to be severly damaged and general strength was slow in returning. Scattered fine and medium moist rales are still present. The chronic cyanosis of the lips is unchanged. She is now up for part of the day.

Too great optimism over the use of oxygen as one of the newer forms of treatment would be entirely unwarranted. Oxygen therapy can only accomplish one thing—the restoration to normal of the oxygen saturation of the blood. It is not intended to supplant the use of sera or any of the accepted forms of treatment, but is an addition to them. It cannot overcome infection or toxemia, but by relieving the patient of a serious embarrassment, it gives him a better chance to fight. Although the number of cases reported in the literature is still small, many of them have been very carefully studied under most favorable surroundings. A definite number of patients who appeared to be hopelessly ill have recovered. The method is based upon sound physiological reasoning, and is worthy of wider use.

ON PROVING THE DIAGNOSIS OF SUSPECTED DIABETES MELLITUS

By J. ARTHUR BUCHANAN, M.D., M.S., BROOKLYN, N. Y.

THE diagnosis of a well marked case of diabetes mellitus requires little effort. The repeated daily finding of sugar in the urine in association with a blood sugar quantity that is above the normal establishes the diagnosis. A blood sugar of 160 mg. in each 100 cc. of blood two hours after eating a full meal is considered the maximum normal. The vast majority of determinations show not over 115 mg. in that quantity of blood. During the last two years a number of patients in whose urine sugar had been found on various occasions have consulted me in the hope of determining the existence or non-existence of a true diabetes mellitus. The usual recommendations for the study of this problem are so cumbersome and often so uncertain as to results that many patients go a considerable length of time before the question is settled.

The glucose tolerance test by oral administration has not been conclusive in the hands of many physicians, because of variations in the absorption rate in the intestines. The subcutaneous and intravenous methods of carrying out the test are impracticable in the ordinary care of patients. Furthermore, the test requires more time than the average practitioner can give to the individual patient.

If a patient has diabetes mellitus, there is a degree of deficiency in the normal output of the secretion of the insular tissue of the pancreas. This secretion, known as insulin, is necessary for the metabolism of carbohydrates. The quantity of the secretion produced under normal conditions is not known. It is evidently very large, and, perhaps, regulated by the demand, as carbohydrates are metabolized when sudden demands arise without sugar appearing in the blood in excess, or in the urine. The fact has long been established that a person with diabetes mellitus or insulin deficiency cannot eat the same quantities and quantities of food as a normal person without developing a blood sugar that is higher than normal, with or without sugar appearing in the urine.

The digestive and intestinal absorptive faculties of a patient remain the same for the same type of food under ordinary circumstances. A test conducted while the patient follows the daily routine of eating offers a method of studying suspected cases of insulin deficiency, that takes into consideration the constant or varying functional capacity of the intestines as well as the secretory power of insular tissue. The time factor as in the glucose tolerance test is not important. The daily routine calls made on the insular tissue are tested, and if the response is sugar in the urine and a blood sugar above normal, the existence of a deficiency is established, even if the deficiency be very slight. The test is comparable to the best one for myocardial efficiency, namely, the ability of the heart muscle to take care of the daily demands placed on it without the production of symptoms.

ROUTINE OF INVESTIGATION

On the first day of the study, the blood sugar is determined, and the urine examined for sugar. The hour in relation to the previous meal is noted, as there is little valuable information obtained by determining the blood sugar until two hours after the previous meal. The subsequent studies are repeated at the same hour. The patient is instructed to eat full meals for twenty-four hours, and to save all the urine passed during the period. The blood sugar is determined, and the urine examined for sugar at the end of the twenty-four hour period. If insulin deficiency is present to any marked extent, the blood sugar will be considerably elevated, and if the degree is marked in the presence of a normal renal threshhold, sugar will be found in the urine. If there is sugar in the urine or not, and the blood sugar is normal, the same program is carried out for one week. If the blood sugar is 125 mg. or to 160 mg. in each 100 cc. of blood, the same program is followed for a second period of 24 hours. During the second period candy is eaten between meals. If at the end of the second twenty-four hour period the same situation exists the patient is instructed to live on a full diet for one week. In no patient with a blood sugar of

160 mg. in each 100 cc. of blood at the end of 24 hours on a full diet has a failure to prove true the diagnosis of diabetes mellitus occurred. At the end of one week the same tests are carried out. If positive information, constant high blood sugar two or more hours after eating a full meal with or without sugar in the urine, of diabetes mellitus is then not obtained, the patient is instructed to live on a full diet for one month, when the blood and urine are again examined. If the examination is then negative for positive evidence of diabetes mellitus, patients are told positively that they do not have diabetes mellitus. Patients are not satisfied by being told that they are potentially diabetic. The chance of this type of patient developing diabetes mellitus after such an investigation is so small that nothing is to be gained by keeping the patients in a prolonged state of anxiety. The physician runs practically no chance of giving information that can be proven inaccurate.

ILLUSTRATIVE CASES

Case. 1. J. L., male, aged 48 years. In November, 1924, sugar was found for the first time in the urine. During the next several months sugar was found a few times in the urine, but in very small amounts. He was placed on a diabetic diet, and told to consider himself a potential diabetic. He was first examined by myself on May 12, 1925. The results of the study are incorporated in Table I.

TABLE I

	Urine Sugar	*Blood Sugar*
First day	Ft. trace	95
At end of 24 hours	0	110
At end of 48 hours	..	...
At end of 1 week	0	110
At end of 1 month	0	105

The patient was told that he did not have diabetes mellitus, nor was there anything to be gained by treating himself as a potential subject for that disease. Subsequent observations have substantiated the advice.

Case 2. R. F. Male, aged 42 years. In the early part of May, 1924, sugar was found in the urine during the course of an examination for stomach trouble. The blood sugar was reported to be 180 mg. in each 100 cc. of blood. A few times later the urine was found to contain sugar, but the blood sugar was always normal. Shortly after the examination, the patient began to lose weight, and dropped from 220 lbs. to 162 lbs. He was dieting, and worrying a great deal, because his mother had died from diabetes mellitus. Shortly after the original diagnosis was made, he changed physicians, and this physician found no sugar in the urine. He was kept on the diet. For the next two years, he changed physicians frequently, in an endeavor to prove if he had diabetes mellitus. On a few occasions sugar had been found in the urine, but the blood sugar was entirely normal. The results of my investigation are shown in Table II.

TABLE II

	Urine Sugar	*Blood Sugar*
First day	0	110
At end of 24 hours	0	110
At end of 48 hours	..	...
At end of 1 week	0	111
At end of 1 month	0	100

This patient was told that he did not have diabetes mellitus, and to discard his diets. There has been a rapid gain of weight, and vigor. There was no evidence to warrant suspecting that he was a potential diabetic.

Case 3. S. H. S. Female, aged 48 years. In May, 1922, she began to be bothered with loss of strength, dreadful thirst, polyuria, and backache. Sugar was found in the urine, and following a short period of dieting, the sugar disappeared. No more sugar was found until October, 1925, when she developed intense itching of the vulvae. She again dieted, and no more sugar was found. She then became doubtful that she had diabetes mellitus, and consulted a good many physicians who told her that she did not have the disease. Just before I saw her she had had a glucose tolerance test, which gave a debatable result, and she was assured that she did not have diabetes. The results of my study are shown in Table III.

TABLE III.

	Urine Sugar	*Blood Sugar*
First day	0.64%	166.7
At end of 24 hours	3.0	230.0
At end of 48 hours	4.0	330.0
At end of 1 week	..	....
At end of 1 month	0	110.0

At the end of 48 hours, the patient was told that she had diabetes mellitus, and desugarization diet was instituted. Subsequent observations have confirmed the diagnosis.

Case 4. J. H., male, aged 36 years. In 1925, following an attack of abdominal pain, 4% of sugar was found in the urine. The blood sugar was 125 mg. in each 100 cc. of blood. The next day the urine contained 2% of sugar, and the blood sugar was 118 mg. in each 100 cc. of blood. Two months later, the urine contained 2% of sugar; the blood sugar was 125mg. After fasting for 12 hours, the urine was sugar free, and the blood sugar was 110 m.g. The patient had an operation at this time for chronic cholecystitis, and subacute appendicitis, both of which were found at the time of operation. One month after the operation sugar was found in the urine, and the patient was told that he had diabetes mellitus. He began dieting, and rapid loss of weight followed. Sugar was not found again in the urine. Four months after the operation, he consulted me to find out if he had diabetes mellitus. The results of the study are shown in Table IV.

TABLE IV.

	Urine Sugar	*Blood Sugar*
First day	1.0%	120
At end of 24 hours	0.0	118
At end of 48 hours	..	...
At end of 1 week	0.0	110
At end of 1 month	0.0	110

This patient was told that he did not have diabetes mellitus, and to discontinue dieting. Subsequent observations have proven the correctness of this advice.

Case 5. J. W. L., male, aged 61 years. On May 22, 1923, 0.8% of sugar was found in the urine. The finding was made in the course of a search for the cause of declining health produced by multiple pains of a marked character. He consulted several physicians, and sometimes sugar would be found, the reverse on other occasions. On Dec. 8, 1924, 1.3% of sugar was found in the urine. He had this report from a chemical laboratory. He was then treated for sugar in the urine for some time, but after a course of treatments by injections in the arm, the sugar cleared up, and he was told that he had no more trouble. For the ensuing two years he consulted no more physicians. Because of a continuous decline in weight, he consulted me in the early part of Jan., 1926, and wished to know if he had diabetes mellitus. He had no symptoms of the disease, and the results of my investigation are shown in Table V.

TABLE V.

	Urine Sugar	*Blood Sugar*
First day	0	160.0
At end of 24 hours	5%	333.3
At end of 48 hours	10%	430.0
At end of 1 week	...	....
At end of 1 month	0	105.3

At the end of 48 hours, the patient was put on a desugarization diet, and subsequent observations have confirmed the diagnosis of diabetes mellitus.

COMMENT

The method used has given conclusive and accurate data. It is easy of application, and will save patients a great deal of anxiety. The study necessitates a blood sugar determination, as occasionally patients are encountered who have no sugar in the urine, or very little, but have a blood sugar that is very high. There is nothing to be gained by considering these patients potential diabetics, as they are not satisfied until they are told that they do not at that particular time have the disease. It is impossible to see the eventualities in the life of any patient.

A PSYCHOSIS CAUSED BY A LATENT FOCUS OF INFECTION* (ISCHIO-RECTAL ABSCESS)

By GREGORY ZILBOORG, M.D.
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THE patient, a departmental chief of a textile mill in New Jersey, was a bachelor of 47 when admitted to Bloomingdale Hospital.

He came to the United States 25 years ago from Germany. His family is German on both sides. Father died of pulmonary tuberculosis at the age of 45, when the patient was one year old. Mother was living and well at 90. One maternal uncle suffered from a chronic psychosis and died in an institution for mental disorders. Another maternal uncle remained unmarried and died at 90. Two living sisters are unmarried at 53 and 55 respectively. The patient is the last of eight children. There is a strong trend of Lutheran fanaticism in the family.

The patient's occupation required the minute examination of the raw material as well as the completed fabrics; strong light and magnifying glasses were used. He has been engaged in this work for fifteen years, and as a result his vision became slightly impaired. He did not drink during business hours, but for many years he was in the habit of drinking several glasses of wine daily; he would do this at home, without company, or at his club in company of his associates and friends. As a rule he would become only mildly intoxicated. He has smoked moderately since the age of 25. Fifteen years ago he is said to have had some bladder or kidney trouble, but he was not long under treatment. Since that time he has been well till the onset of the present illness. His average weight was 152 lbs.

Four and a half months before admission he contracted a cold; soon after his "back teeth" were extracted. He felt below par for about two months and finally had to take to his bed. Herpes labialis was observed; his dejecta were examined and he received some vaccine treatment, but without relief. He appeared apathetic and did not seem much concerned about getting well. Two weeks later, i.e., about two months before admission he showed the first signs of mental disorder (forgetfulness and confusion). He asked for his medicine immediately after he had taken it; he dressed and said he was going out for a walk; he spoke of a hail storm which he supposed had occurred the day previous. He ran a temperature which did not subside and finally, one month before admission to Bloomingdale his physician moved him to the private pavilion of a general hospital in New York City.

The patient complained of constipation and pain in the region of the hips. The physical examination at that time was recorded as negative except for an enlarged liver. The temperature showed daily afternoon rises to 101°-102° F. The leukocyte count varied from 14 to 21 thousand with 80% to 85% polymorphonuclear leukocytes; haemoglobin at that time was recorded as 80% with 4,400,000 R. B. C. Fluoroscopy of the chest and roentgenograms of the gastro-intestinal tract yielded negative findings. Blood culture; the Wassermann reaction of the blood and spinal fluid, the Widal test, examination of the feces—were all negative. Blood urea, creatinin, uric acid, sugar and CO_2 combining power, were normal. Urine examination was negative except for an occasional trace of albumin. The patient weighed 128 lbs., i.e., he was 24 lbs. below his usual weight.

The patient became delirious, sleepless and increasingly restless; he was irritable, disturbed and difficult to manage. He was taken to Bloomingdale after a month's stay in the General Hospital. The patient's physician considered it to be a case of an alcoholic psychosis and suggested that the "origin of the fever might be in the liver together with obstinate constipation."

On admission to Bloomingdale Hospital, the patient appeared chronically ill, pale, dehydrated, 28 pounds underweight. The temperature was 99.5° F. The pulse 92; respirations 28. Eye grounds negative. Chest was negative. Blood pressure 103/70. Radial arteries not palpable. Liver not enlarged. Spleen not felt. Abdomen boggy; deep reflexes very active; both abdominal and right cremasteric reflexes were absent. Rectal examination negative. Prostate not enlarged. Both small toes were overriding their fellows—a congenital deformity. The carrying angle was feminine. Pubic hair of feminine distribution. Genitalia quite small. Little more than the meatus could be seen, the glans penis being concealed by an extreme phymosis.

The patient was partially disoriented as to time, place and person; he could not explain why he was brought to the hospital and referred vaguely to his genitalia as being in need of treatment. He was a little restless, abstracted, unable to keep up a sustained conversation, using German and English words to make up one sentence. He seemed evenly dull and satisfied. He said he felt very strong;

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* Read before the Section on Medicine, at the Academy of Medicine, on February 15, 1927.

there was a definite impairment of both remote and recent memory. He thought he was in a hotel in Vienna or Cologne; he thought he was back in the Imperial German Artillery in which he had served before he came to the United States. He saw himself taking part in a battle, or drinking and having a good time with his friends in New Jersey. He was now fishing and swimming at his country place and then in a dark cellar, or in a hotel lobby, or in a taxi dashing through rain covered streets, or on a liner in mid-ocean. At no time did the thought that he was ill occur to him, although he did remember the nurses and the X-ray rooms, and fleetingly recognized them as such.

His haemoglobin was 68%; R.B.C. 3,600,000; W.B.C. 12,000 with 83% polymorphonuclear leukocytes. Blood Wassermann was negative. Renal function (phenol-sulphon-phtalein) test 75%. Blood urea and sugar were normal. Blood culture and repeated examinations for malaria were negative. Basal metabolism rate plus 7%. Urine was negative, including the examination for urobilin. X-ray of chest was negative. Roentgenograms of the gastro-intestinal tract and a carium enema disclosed nothing remarkable, except for a moderate degree of spasticity of the descending and pelvic colons.

A temporary diagnosis of a toxic infectious psychosis with an unknown focus of infection was made.

Ten days after admission the patient was circumcised. The temperature continued to fluctuate between 99° F. to 102.6° F. More frequently it was near or at a 100° F. in the mornings and 102.1° F. in the afternoons or evenings; the leukocyte count rose up to 16,000. Disorientation, insomnia, memory defects and mild apathy persisted. Patient was not quite certain that he was sick.

Sixteen days after admission his buttocks appeared mottled with areas of bluish discoloration; an area of deep induration and slight redness appeared on the right buttock about 5 cm. from the anus. Blood examination on that day showed: Haemoglobin 70%; W.B.C. 24,000 with 90% polymorphonuclear leukocytes. A diagnosis of ischio-rectal abscess was made and next morning the patient was operated upon under ether anesthesia.

About 100-150 cc. of sanguino-purulent material was evacuated. A probe introduced into the sinus reached the hallow of the sacrum. A culture of the pus yielded a streptococcus.

A few hours after the operation the temperature was 99° F. and after that it fluctuated between 97°F-98°F. The patient's appetite improved almost immediately; he appeared more cheerful, his irritability diminished markedly; he would retain for several hours the name of the physician; previous to the operation he was unable to repeat names immediately after they were given.

Three days after the operation his Haemoglobin was found to be 60% with 4,000,000 R.B.C. and 8,000 W.B.C., of which 74% were polymorphonuclear leukocytes.

In view of the anemia and failure to gain in weight (he weighed 109 lbs. at that time), the patient was transfused within a week after the evacuation of the abscess; 850 cc. of blood were used.

Four hours after the transfusion the temperature rose sharply to 105° F. This was accompanied by a dramatic recrudescence of the psychotic picture. The patient displayed a great deal of psycho-motor activity; he jumped out of bed, urinated and defecated around the room; later he had no recollection of his behaviour, nor could he recall for a long while the transfusion during which he was quite clear mentally. The temperature fell gradually and within two days it reached 97° F. A moderately severe herpes labialis was observed at that time. The temperature thereafter remained subnormal or almost normal.

The mental symptoms disappeared. His physical condition improved considerably. He soon weighed 138 lbs., having gained about 38 lbs. in seven weeks. The sinus of the ischiorectal abscess which for a time was kept open with a drain, was healing satisfactorily, only a scant serous exudate coming from it. A short time before he left the hospital he had a nocturnal emission which caused no discomfort. Heretofore erections were incomplete and painful on account of the phymosis. Proctoscopic examination was negative; it was noted that the mucous membrane of the rectum appeared slightly anaemic. Blood examination showed: Haemoglobin 85%; R.B.C. 5,000,000; W.B.C. 6,500. He was discharged as recovered two and a half months after admission.

Two weeks after he left the hospital, the patient was married. When seen six weeks later, he had no complaints. The abscess wound was healed, he weighed 156 lbs. and was back at his usual work. He continues to be well at present.

* * * *

Certain points of interest are presented by this case.

In the family we observe a strong religious trend and a number of individuals, including the patient, who remained unmarried. In the patient are found certain anomalies of development, such as a congenital deformity of the small toes, a feminine carrying angle, a feminine distribution of pubic hair and an extreme phymosis. Circumcision, under the circumstances, was indicated as a matter of simple hygiene. In this case, however, the phymosis was an important factor in the life of the individual in that it was disabling as far as sexual function was concerned. It has been observed that conditions of this kind, especially in individuals with a suggestion of feminine make-up, are amongst the causative factors of alcoholism. In the light of these considerations, circumcision was an indication of great medical importance.

As to the ischio-rectal abscess, there is room for speculation with regard to its primary cause. It would also be of interest to investigate, if possible, into the reasons why it was that a number of very severe symptoms had come into evidence such a long time before the diagnosis of ischio-rectal abscess could be made. Such speculations, however, are outside the scope of this communication.

A perusal of the literature failed to disclose a similar case. Farani and la Silvera[1] tell of a case which showed psychotic manifestations a long time before it was discovered that a suppurative phlegmona in the illio-lumbar fossa was the underlying cause. It must be stated that whatever the underlying cause, an empyema, a renal calculus, a deeply seated abscess or a systemic infection, the symptom-complex of the psychosis remains more or less the same. It is well defined and allows of little or any mistake in diagnosis.

Bonhoeffer[2] formulates the following diagnostic suggestion to serve as a guide in the recognition of the whole group of infectious psychosis. The patients, he says, lose the feeling of being ill and enter a state of mild euphonia.

Liebermeister, who was the first to describe the exact symptomatology of infectious psychoses, recognizes three clinical stages.

In *the first prodromal stage,* the patients are still oriented as to time, place and person; the first cerebropathic signs can be observed; headaches, oversensitivity to light and mild noises, psychic irritability, slight motor restlessness, vivid dreams, a tendency to become frightened in sleep; when awake, the patients have the feeling of an uncontrollable rush of thoughts, these latter present usually actual memories of certain situations of the patients' lives; the memories show a tendency to stand out as plastic visions; there is pressure of speech; the patients experience a difficulty in finding the right words. The first memory lapses come into evidence.

In *the second stage* the patients have optic illusions. As soon as they close their eyes, they have hypnagogic hallucinations; quite frequently they see themselves travelling on high seas, or flying in the air, or falling. As soon as they open their eyes they come to again. Hence fear of falling asleep and insomnia. The patients become disoriented. If they do at times regain consciousness of reality they do so only after a very taxing effort of attention. They speak or mutter in response to their hallucinations, they laugh or cry out spontaneously; they suffer from the discomfort of motor restlessness. The feeling that gradually enters the state of coma.

In *the third stage* flight of ideas predominates. Reminiscences become plastic, as if real. Motor restlessness decreases gradually. The patient becomes ataxic, then stuporous and gradually enters the state of coma.

August Hoch[3] in this country studied the organic deliria and reconstructed a symptom complex somewhat similar to this which incidentally was observed by the clinicians of two centuries ago.

Thomas Sydenham was one of the first to point out the psychotic manifestations which accompany or follow severe malarial infections.

It is of interest to note that the great dearth of institutions for mental disorders in the middle of the nineteenth century was partly responsible for the fact that the psychiatrists of those days (Esquirol, Martini, Georget, Burrows and others) considered the infectious psychoses as belonging to the field of general medicine. Jacobi was the first to consider them as within the competence of the psychiatrist.

Our case is peculiarly illustrative of the classical syndrome and reminiscent of the argument of three-quarters of a century ago; except that the dearth of hospitals for mental disorders is not as great at present.

The case suggests that it is rather unwise to draw a strict line of demarkation between these two branches of medicine. Such a demarkation tends to turn the psychiatrist away from the use of our medical equipment; and on the other hand it seems to deprive the general medical man from some clear cut concepts which ought belong to his armamentarium.

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RADIUM THERAPY IN TUBERCULOSIS CERVICAL ADENITIS

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From the Radium Department, Manhattan Eye, Ear and Throat Hospital

TUBERCULOSIS of the cervical lymph nodes, according to Fraser, occurs by way of the blood stream in about 10 per cent of the cases, and through lymph channels from a local focus in approximately 90 per cent of the cases. Scattered, haphazard, and often coincident appearance of multiple diseased nodes suggest a blood infection. In the local development of a tuberculous lymph node the disease remains for a long time localized to the node, or those immediately surrounding it, thus suggesting a lymphatic infection, and more especially if the affected nodes lie in a lymphatic connection with such obvious areas of absorption as the tonsils. Tuberculous adenitis is far less common now than two decades ago, and would appear to be due to the better oral hygiene, early tonsillectomy and adenectomy, and a better milk supply.

Early surgical removal of localized tuberculous lymph nodes is a conservative procedure, but, according to Hanford, extensive dissection must be tempered with an eye to the ultimate appearance of the neck, and safety to patient and surrounding structures. The aim of treatment is a good cosmetic result which shall be permanent. In 75 per cent of the cases reported by Smith and Hopkins, complete excision was impractical, or impossible. A clinical cure was obtained by roentgen-ray treatment in 12 of their 21 cases. Six were markedly improved, two showed only slight improvement, and one died of unknown cause. Amundsen's results with roentgen-ray treatment showed 81 per cent cured of 32 patients with simple enlargement of the glands; 49 per cent of 32 with periadenitis in addition; and 77.4 per cent were cured of the 53 with suppuration and fistulas in the glands. The total cured thus averaged 66 per cent, and recurrence was observed in 4 per cent. All were reexamined from two to nine years since treatment.

Of fifty cases of tuberculous adenitis treated by Gosse with radium, 37 were cured, 9 improved, 3 not improved, and one dead. Tischy states that reexamination, two years or more later, showed recurrence in 74 per cent of 39 cases of tuberculous glands treated by operative measures, but there was a recurrence in only 11 per cent of 27 that had been treated by raying. In another group of 8 operative, and 25 rayed cases, the percentage of recurrences was 75 for the former, and 12 for the latter. All were selected cases, with enlarged or softened glands, but no fistulas.

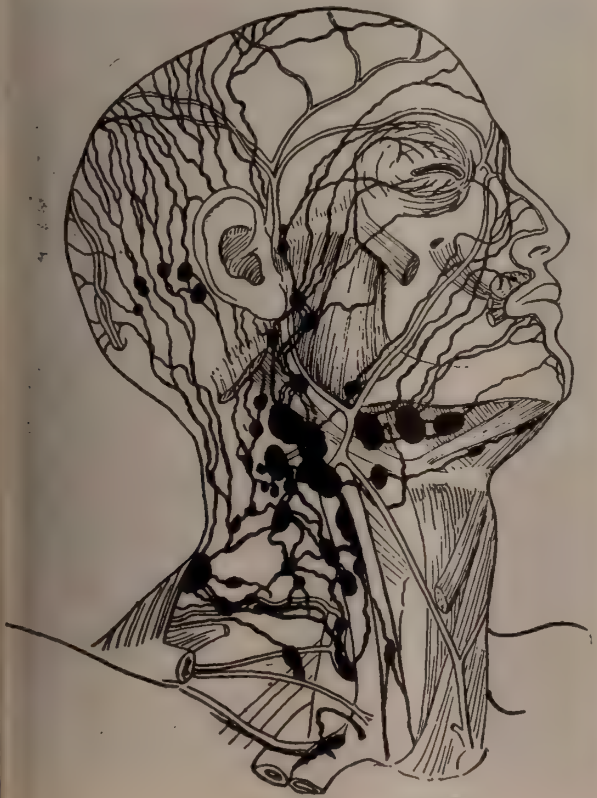

Fig. I. Cervical Lymph Nodes (from Toldt).

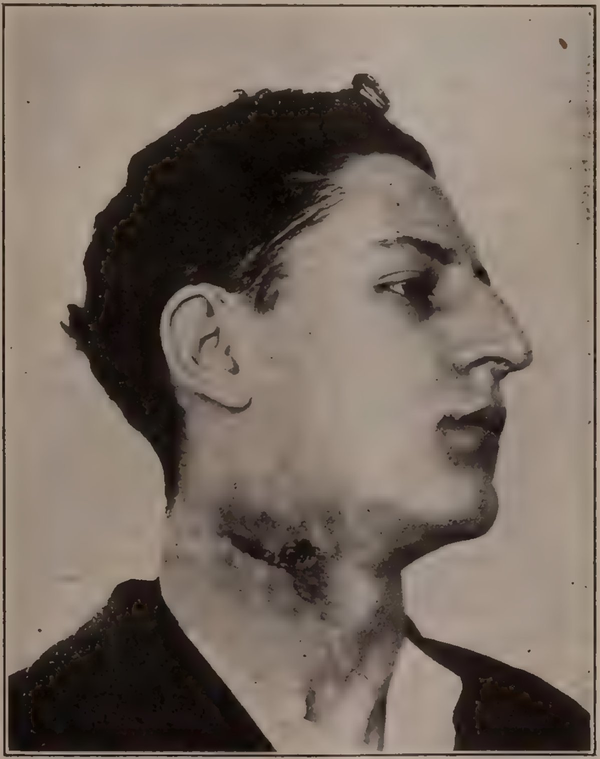

Fig. II. Case 24, "J," showing suppurating sinus following recent incomplete operation.

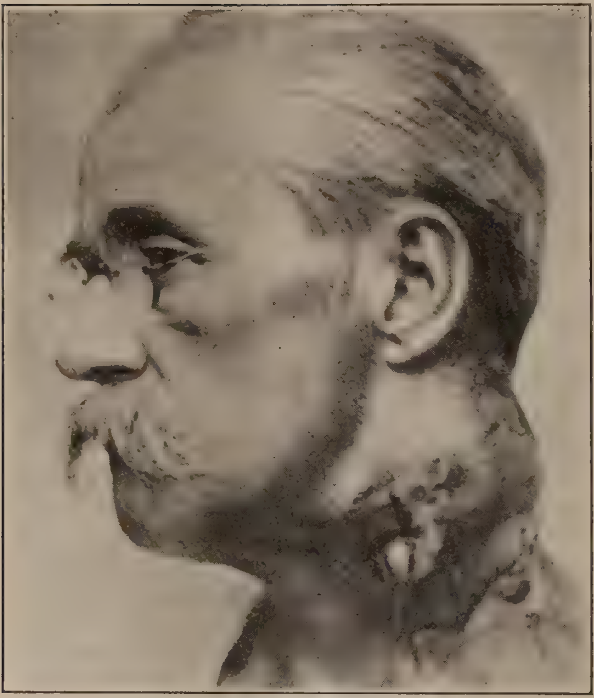

Fig. III. Case 25, J. S. Recurrent post-operative tuberculous cervical adenitis.

The three pathological types are: the caseating, the lymphoid, and the fibrous. The caseating variety is the most common. Superadded pyogenic infection is often present, increasing the caseous material, producing periadenitis, and discharging sinuses. Radium in tuberculous adenitis should be considered as an adjunct to the other well-known measures employed in the treatment of tuberculosis. The foci of infection should be determined and eradicated; excessive strain and fatigue avoided; proper diet, fresh air and sunshine are essential.

Radium produces an inflammatory reaction in the tissues which hastens the healing of discharging sinuses, and causes a gradual shrinkage of the tuberculous lymph nodes. Many nodes, particularly those of the lymphoid type, will entirely disappear, while others remain as fibrous nodules. Healing occurs through a hayline change of general scarring, and sometimes with a deposit of calcium which is tightly encased in a fibrous capsule. Dr. J. C. Mottram writes as follows: "The cellular changes which follow the irradiation of tuberculous lymphatic glands finally result in fibrosis. There is an early disappearance of the lymphocytes, which either disintegrate or are phagocytosed by macrophages. The lymphoïd myeloblasts, except after large doses of radium, do not persist, and later may reform lymphocytes. The lymphoid follicle atrophies, only the central cells remain. The endothelial meshwork of the glands remains little altered, except for a great increase of fibrous tissue, so that the whole gland, shrunken from the loss of lymphocytes and other cells, come to consist of narrow spaces lined with endothelial cells running through thick fibrous tissue. In this tissue the tubercles persist, more especially the giant cells, and here tubercle bacilli have been found persisting many months after radiation. It has been concluded from these appearances that the good clinical results are due to the creation of a site unfavorable to the growth of the tubercle bacilli, rather than to any direct action of the radiation on the bacillus. The dose of radiation given is always very much less than the lethal dose for the bacillus, nevertheless, a direct action on the bacillus may also be a factor; for the reason it is well known that sublethal doses of radiation effect a lowering of the virulence of bacilli."

Technique of Radium Application

There is no set rule for the treatment of these cases. The lymph nodes to be treated are carefully located, and palpated, and with a dermographic pencil areas are mapped out on the overlying skin. Incision or aspiration of the pus and caseating material is indicated before radiation. A large firm mass will require more radiation, and a deeper penetration than soft superficial nodes. In most cases 100 mgs. radium element in three or four tubes strapped to a block of

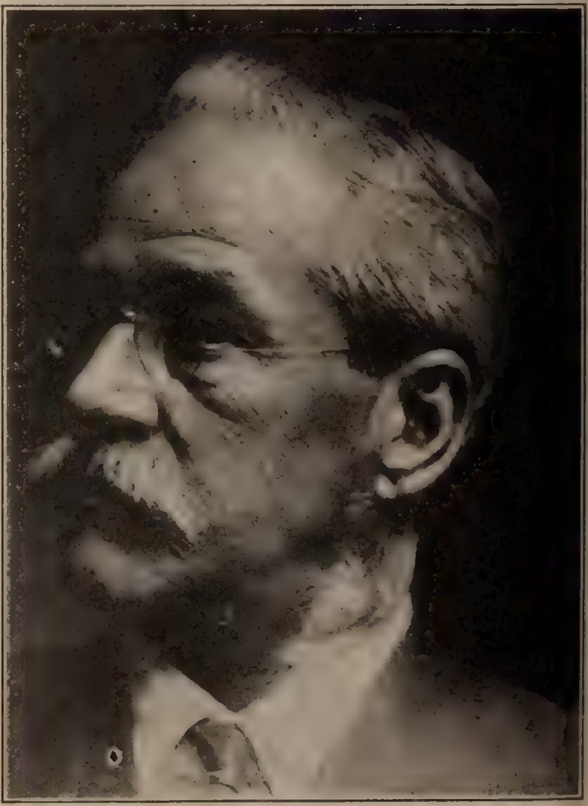

Fig. IV. Case 25, J. S. End result after radium treatment.

balsam wood 5 by 7.5 by 3 cm. for a period of 15 hours, will cause a rapid regression of the nodes. The gamma rays are employed and each square centimeter skin surface receives 40 mg. hours at 3 cm. distance, which is approximately one-half an erythema dose. Full erythema doses should be avoided, because of the possibility of latent skin atrophy. The treatments are repeated at monthly intervals, and, as a rule, five or six applications are necessary.

SUMMARY

In the series of 25 cases of tuberculous adenitis treated by radium, 18, or 72 per cent, are clinically well; two are dead; five improved, but still have active nodes. Radium, if properly used, is a safe procedure, and gives a high percentage of cures. Unless sinuses were present, no scars are left. Radical operation is contraindicated, because of the tendency to recurrence and the disfiguring scars.

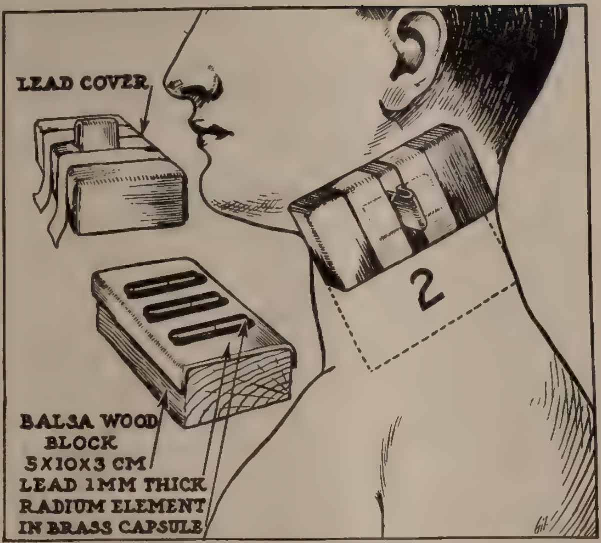
LEAD COVER
2
BALSA WOOD BLOCK 5X10X3 CM
LEAD 1MM THICK
RADIUM ELEMENT IN BRASS CAPSULE

Fig. V. Radium Block applied to lymph nodes of neck.

REPORT OF CASES

No.	Name	Age	Sex	Examination	Duration of Disease	No. of Treat.	Duration of Treatments	Total No. of Mg. Hrs.	Duration of Observation	Result
1	C. D.	25	F.	Firm mass 4 by 3 by 2 cm. in left submaxillary region.	1 yr.	5	7 mos.	3,500	3 yrs.	Satisfactory.
2	V. M.	38	M.	Large firm mass 6 by 6 by 4 cm. in right neck.	2 mos.	5	8 mos.	6,240	2 yrs.	Satisfactory.
3	A. F.	27	M.	Hard mass of nodes 6 by 8 by 4 cm. in left submaxillary region with a chronic suppurating sinus.	4 yrs.	5	18 mos.	14,650	2 yrs.	Improved, mass one-half the original size. Sinus healed; still under observation.
4	P. R.	25	M.	Large, hard mass 8 by 5 by 3 cm. in left submaxillary region. Had several low voltage X-ray treatments in Germany 3 yrs. previously. Skin shows considerable atrophy.	4 yrs.	1		3,200	1½ yrs.	Satisfactory.
5	H. K.	10	M.	Firm discreet mass 4 by 4 by 6 cm. in left submaxillary region.	10 mos.	9	2 yrs. 9 mos.	14,000	3 yrs.	Satisfactory.
6	P. M. A.	33	F.	Numerous scattered nodes; both sides of neck have increased in size during the past six months. Numerous incisions.	8 yrs.	7	15 mos.	13,400	3 yrs. 6 mos.	Satisfactory. Few fibrotic nodules remain.
7	M. G.	22	F.	Firm swollen nodes 4 by 3 by 1 cm. anterior angle of neck. Numerous discreet swollen nodes 1 to 3 cm. on both sides of neck.	4 yrs.	2	6 wks.	2,800	3 yrs.	Satisfactory.

REPORT OF CASES—Continued

No.	Name	Age	Sex	Examination	Duration of Disease	No. of Treat.	Duration of Treatments	Total No. of Mg. Hrs.	Duration of Observation	Result
8	V. McA.	19	F.	Numerous scattered nodes both sides of neck.	12 mos.	2	5 wks.	3,100	2 yrs. 3 mos.	Satisfactory.
9	A. D.	11	F.	Large discreet lymph nodes both sides of neck. Deep sinus left submaxillary region. Mother has pulmonary tuberculosis.	1 yr.	6	2 yrs. 9 mos.	13,700	3 yrs. 6 mos.	Satisfactory.
10	M. F.	42	F.	Several discreet nodes in left side of neck 2 by 4 cm. in diameter. 14 low voltage treatments 2 yrs. before. No atrophy of skin.	6 mos.	1		1,120	3 yrs.	Satisfactory. Fibrous nodules remain.
11	H. F.	5	M.	Suppurating nodes both sides of neck. Incisions have been made.	3 yrs. 6 mos.	6	2 yrs. 6 mos.	5,900	2 yrs. 6 mos.	Improved. A few nodules remain.
12	N. S.	16	F.	Large diffuse soft nodes right side neck. 6 lesions on face ulcerated, from 2 to 4 cm. in diameter.	3 yrs.	9	2 yrs. 3 mos.	1,400	4 yrs.	Improved face lesions healed. Mass in neck is smaller.
13	H. H.	27	F.	Colored, diffuse, swollen, tender nodes both sides of neck. Loss of weight Advanced pulmonary lesions.	1 yrs.	6	1 yr.	14,400	2 yrs. 6 mos.	Died pulmonary tuberculosis.
14	D. N.	25	F.	Diffuse, large, hard nodes both sides of neck. More marked on left. Incipient pulmonary tuberculosis.	4 mos.	6	2 yrs.	11,000	2 yrs.	Small fibrous mass left side of neck. Lungs clear after six months treatment in Santa Fe, N. M. Has gained 16 pounds in weight.
15	L. R.	18	F.	Previous operation 5 yrs. ago. Right side of neck fairly soft 10 by 10 by 4 mass. In submental regions mass 4 by 4 by 2 cm.	6 yrs.	4	5 mos.	13,400	1 yr.	Satisfactory.
16	E. B.	22	F.	Entire right side of neck diffusely infiltrated, with a deep suppurative sinus anteriorly.	6 mos.	2	2 mos.	3,300	1 yr. 9 mos.	Satisfactory; few fibrous nodules. Sinus healed.
17	A. G.	27	F.	Dissection lymph nodes right side of neck 10 wks. previously. Swollen mass right submaxillary region 8 by 6 by 3 cm. with chronic suppurative sinus present.	4 mos.	3	6 wks.	2,170	2 yrs. 9 mos.	Satisfactory.
18	L. H.	20	F.	Previous excisions in France. Diffuse soft nodes both sides of neck with several suppurative sinuses.	5 yrs.	10	5 yrs.	3,065	7 yrs.	Satisfactory.

REPORT OF CASES—Continued

No.	Name	Age	Sex	Examination	Duration of Disease	No. of Treat.	Duration of Treatments	Total No. of Mg. Hrs.	Duration of Observation	Result
19	D. F.	20	M.	Excision 5 yrs. previous, lymph nodes right neck 10 by 7.5 by 4 cm.	3 yrs	9	3 yrs.	11,300	5 yrs. 3 mos.	Satisfactory. A small fibrous mass remains.
20	J. L.	14	M.	Previous excisions. Several confluent nodes forming ulcerating mass in right neck 12.5 by 5 by 3 cm.	3 yrs.	17	6 yrs.	20,530	6 yrs.	Improved; had relapse after 2 years. A small mass remains which may cause trouble.
21	M. G.	26	M.	Previous excisions, extensive suppurating node involvement right neck. Evidence of healed tuberculous right upper lobe.	2 yrs.	12	3 yrs. 6 mos.	24,260	3 yrs. 9 mos.	Satisfactory; fibrous nodules remain. No active pulmonary tuberculosis.
22	M. T.	8	F.	A & T operation 4 yrs. ago. Complete cervical adenectomy on right side 2 yrs. later. Swelling behind right tonsil pillar. Several swollen lymph nodes 1 to 3 cm. in diameter.	3 yrs.	2	6 wks.	2,250	2 yrs. 3 mos.	Satisfactory.
23	P. O.	12	F.	Colored. Previous excisions, extensive suppurating nodes both sides of neck. Right eye tuberculous.	1 yr.	6	1 yr.	8,950	2 yrs. 4 mos.	Satisfactory. Fibrous nodules remain. Eye condition healed.
24	J. A.	16	M.	Recent operation right side of neck, extensively involved discharging sinus.	1 yr.	8	1 yr.	4,950	2 yrs. 7 mos.	Satisfactory.
25	J. S.	43	M.	Entire left side of neck a huge suppurating mass of lymph nodes. Previous aspirations.	3 yrs.	10	2 yrs.	35,000	7 yrs.	Neck healed. Five years later patient died of influenza.

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EDITORIAL

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THE EVOLUTION OF MEDICAL SOCIETY METHODS

Physicians are rapidly acquiring a civic consciousness and are developing methods by which they may perform their civic duties through their spokesmen in the county societies. It is interesting to note the evolution of the civic activities of medical societies in the several counties and states. One county society, for example, conducts free clinics for immunizing children against diphtheria; another sends the children to the private offices of the doctors; while still another does the immunizations through clinics in which the attending doctors are paid from Red Cross funds. Comments on these various methods are found in the account of the Tri State Conference which is reported on page 733 of this issue.

It is noticeable that the more the leaders of medical societies investigate the calls to civic work, the more insistent are they that the members of the medical societies of the county, states and nation shall assume the leadership in all lines of public health work and the practice of civic medicine.

STATE MEDICINE

State medicine, or the treatment of individual cases of sickness by the Government, has been a favorite subject of condemnation by presidents of State Medical Societies in their annual addresses, and justly so. But while pure state medicine is undesirable from every point of view, yet certain functions in medicine must be conducted by the community. What those functions are may be clearly seen on an analysis of the present medical situation.

Physicians have always been willing to treat the poor without remuneration, but through ignorance or prejudice it is often impossible to secure adequate cooperation in following out the advice given. Every physician has frequently gone through the disheartening experiences of spending hours on patients who fail to cooperate in their administrations. The temptation is always strong for the doctor to cease trying to give advice unless the patients think enough of it to follow it and pay for it.

The failure of patients to follow advice is popularly ascribed to financial conditions, and the charge is sometimes made that doctors can bring about cures if they are paid to do so. The response to this popular belief is the proposal that the state should provide the medical advice at public expense upon the theory that doctors paid for full time service will give the best medical advice, and that the patients will follow it effectively. But experience has abundantly demonstrated that state medicine, or free advice, is a failure for a reason that is evident when it is considered in its logical relation.

There are two principal reasons why people fail to profit by medical advice. The first reason is *economic*, and includes such conditions as poverty, housing, occupations, etc. This group of reasons is *environmental* and deals with conditions outside of the body.

The second reason is inherent within the patient, and is his *personal characteristic*, or temperament, either openmindedness or prejudice, bravery or fear, backbone or moral weakness. No amount of financial aid can supply the brains, and will power that are often needed for the cure or prevention of sickness.

Economic relief does not settle problems of medicine any more than they settle those of morals and religion. The church no longer considers that almsgiving affords more than temporary relief. It does not improve the morals of the recipient. It not only fails to arouse an aggressive spirit of selfhelp, but on the contrary it encourages laziness and dependency.

The modern method of dispensing charity is based on education and inspiration, in order to arouse reliance and self-support.

The same principle applies to medical relief and advice. The physician can offer medicine to a patient, but he cannot make the patient take it. He can advise early bedtime hours for an ill nourished child, but he cannot keep the parents from taking the child to the evening movies. Free advice and State medicine will not supply the intelligence and backbone on which strength and vigor are founded.

Medical alms being only a temporary makeshift, there remains the alternative of instilling knowledge and moral stamina into the people. This is the object of health education. This is the collective work of the community. It is general and covers all health topics. The individual physician cannot do it with any degree of effectiveness, for his class would number from 500 to 1,000 persons, that being the average number that a physician serves. Health education is the work of departments of health and education, and of voluntary organizations, such as public health nursing organizations, parent teachers associations, and anti-tuberculosis societies.

State medicine finds its own peculiar field in medical education. Nearly all physicians are agreed on that point, but they disagree on some of the details of how it should be carried out. One point of disagreement is that concerning clinics conducted for demonstration purposes. The physicians of Newburg for example, agreed to conduct a demonstration whose object was to immunize all the children of the city against diphtheria with the expectation that in succeeding years parents would have it done by their family doctors. The physicians of Schenectady agreed to the principle of medical education of the people at public expense, but insisted that the anti-diphtheria immunizations should be done in their offices as a part of their private practice. The physicians of Cambria County, Pennsylvania also agreed that the education of the people should be done at community expense, but they gave the immunizations for pay that was supplied by the Red Cross. These demonstrations were described and discussed at the Tri-State Conference of officers of the Medical Societies of the States of New York, New Jersey, and Pennsylvania that is reported on page 733 of this Journal. The encouraging feature that is common to the work in all the communities is that the physicians agreed that health education was a state or community function.

There was also an agreement that physicians are charged with the obligation to encourage health education. The medical leaders felt that all physicians should be willing to forego immediate pay and to give diphtheria immunizations free as a part of the educational work of the community.

The recent growth of the sense of civic duty of physicians to assume the leadership in all things medical has been remarkable. Health is a peculiar commodity in that it is essential for every person in a community. Physicians are organzied into County, State and National scoieties, which are like churches. Some physicians are high priests of health; more are deacons and elders; while all can be members and supporters of the great ideal of securing perfection physically just as the church stands for perfection morally.

PHYSICIAN REFUGEES IN THE UNITED STATES

It is hard to realize that in the ranks of the medical profession are hundreds of men and women looking for work. Many of these are foreigners who have come to the United States to get away from the depressing conditions in Europe. They come, full of hope and ambition, sometimes with excellent equipment, professionally and personally, but because of lack of influence, perhaps on account of unfamiliarity with our language, the discouragement they meet on every hand is tragic. This is particularly true in the case of women doctors who come here. There have been quite a score of women M.D.'s during the past year who have come to the New York Academy of Medicine with nothing but their diplomas in their hands and hope in their hearts. Russian for the most part, are these pilgrims, but other countries, especially Austria, are also represented. The Academy tries to find positions for these applicants, but when a doctor has been in practice for five, ten, fifteen years, he or she is not quite fitted to start afresh with an internship, and yet such are almost the only openings available. The cooperation of hospitals in keeping the Academy of Medicine, through its Bureau of Clinical Information, advised as to present and future vacancies would be of immense help. If individual doctors would let the Bureau know of any opportunities, anywhere, which might solve the problem of earning a livelihood for some brother doctor, the encouragement would be of the greatest value.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

The American Medical Association: *The New State Journal of Medicine* for July, 1902, contains an account of the annual meeting of the American Medical Association in Saratoga. The reports showed that the Association then had 22,000 members. The membership dues were apparently two dollars, for $46,505 was reported as the amount collected during the year.

The Journal produced an income of $113,740, all of which was probably from advertising. The Association had about $91,000 assets in cash and bonds. Consideration was being given to the purchase of a site for a building to house the Association.

The question of the relation of the societies of the counties and states to the A. M. A. was extremely loose. The account says:

"On March 8 the secretary of the New York State Medical Association forwarded a list of 161 names of members of the American Medical Association residing in New York who were not members of the New York State Medical Association or any of its branches, and asked that these be dropped from the roll of members of the American Medical Association. I declined to take this action, because I could find nothing in the constitution and by-laws authorizing me to do so.

"There has been no way of keeping in touch with such matters in the past, since there has been no close relationship between this Association and its subordinate branches and no attempt to report to the higher body on the part of the lower. In the future, when we became organized according to the proposed plan, it is presumed that a systematic method of reporting by the county society to the state society, and by the state society to the Association, will be adopted and carried out. The present conditions are certainly not satisfactory. We have had on our books as members until quite recently, and probably have yet, men who are the veriest quacks and the most notorious advertisers in the country. This has occurred from the fact that it is impossible to keep in touch with each individual member unless it is done systematically by such reporting as it is hoped will soon be adopted."

MEDICAL PROGRESS

Prickly Heat as a Mycotic Dermatitis.—An editorial writer in the *Journal of Tropical Medicine and Hygiene,* May 16, 1927, xxx, 10, states that as regards the pathology of prickly heat the views of Pollitzer have usually been accepted, namely, that its production depends upon the noncornification of the cells of the stratum corneum, the cells of which, sodden by constant perspiration, swell and obstruct the orifices of the sweat glands and thus lead to an accumulation of fluid in the ducts. According to this view the condition is a form of malaria. Recently Smith, studying the disease in Lagos, found that areas of prickly heat presented scaling, and microscopical examination of the scales, after treating with caustic potash solution and staining by Gram's method, revealed the presence of mycotic bodies which he considered to be the causative fungus of the disease. A study of the morphological, tinctorial, and fermentative reactions of these fungi indicates that they belong to that class of the *Fungi imperfecti* known as *Monilia,* and comprised within the *balanica* and *rosea* varieties of the class. By inoculation of a culture of these monilias on the human skin a lesion is obtained which is comparable to prickly heat in an aggravated form. A monilia, identical with that used for inoculation, can be demonstrated in the scales and obtained from them in culture. Further, the monilia isolated from the lesion produced by experimental inoculation will, on reinoculation, produce a similar epidermal lesion. Finally, the presence of a Gram-positive yeast-like fungus can be demonstrated in sections of the horny epithelium of the roofs of vesicles or postules and in the superficial parts of the hair follicles of the experimental lesion. The logical deduction from these investigations is that prickly heat is a dermatitis of mycotic origin, and that the casual microorganism belongs to the monilia group.

Severe Forms of Pregnancy Toxicosis.—H. Küstner describes certain forms of pregnancy toxicosis, some being quite masked as other affections. One woman for example appeared to be suffering from gallstone disease, probable empyema of the gall-bladder, great enlargement of the liver with jaundice, high temperatures, and likelihood of sepsis. Interruption of pregnancy was indicated although not with the supposition of toxicosis. But no sooner was the uterus emptied than all of the symptoms rapidly subsided. In 48 hours the liver had become normal in size. The only symptoms which had at all suggested toxicosis were albuminuria and casts and a high blood pressure. Another patient showed obstinate vomiting but aside from this symptom the diagnosis pointed to either pyelitis or paranephritic abscess. The liver was enlarged and tender and there was much albumin in the urine but no casts. As the patient went from bad to worse, the incessant vomiting threatening death by exhaustion and inanition, the uterus was emptied and a few days later all symptoms had disappeared. Cases of this type differ notably from ordinary pregnancy-kidney and eclampsia on the one hand and from the more or less mild cases in which one organ bears the brunt of the intoxication. To account for them the author advances the view that the vegetative nervous system is singled out for attack. These cases develop late in gestation although there may have been hyperemesis from the first. The indication is plainly to empty the uterus and thereby eliminate the source of the poison.—*Muenchener medizinische Wochenschrift,* March 25, 1927.

Purification of Sewage-Contaminated Waters by Minimal Doses of Sodium Hypochlorite.—E. Techouyeyres and Mlle. Pillement refer to the method introduced during the war at Verdun by Bunau-Varilla for making infected water potable for the troops and which was sometimes termed "verdunization." The hypochlorite was introduced in such small quantities as to be imperceptible to the taste and the mixture took place automatically through the act of pumping. The presence of a decimilligram of the salt to a liter of water thoroughly disseminated by energetic stirring was sufficient for the destruction of all germ life. Since the war the same method has been used by health officers with polluted water at Reims, Carcassonne (typhoid endemic), Monte Carlo, and other places. Recently it has been attempted to disinfect actual sewage water before it can contaminate the basins into which it discharges. The tests were *in vitro,* sewage being submitted to the action of the hypochlorite in vessels of 100 c.c. capacity. Agitation was effected by the centrifuge driven by an electric motor. Controls showed that without thorough agitation the minute quantity of sodium hypochlorite was insufficient for purification, but when it was well stirred in, the sterilization of the sewage was complete. This preliminary work will in time be succeeded by actual attempts at disinfection of liquid sewage.—*Bulletin de l'Académie de Médecine,* March 22, 1927.

Progress in Medical Climatology.—Franz Baur, apparently not a medical man himself, discusses this subject exhaustively in the *Klinische Wochenschrift* for March 12, 1927. Progress in this field must have a double source, the first from medicine, and especially physiology, and the other from meteorology. Physiology has recently shown exhaustively the effects of the high sun on the human organism. The red and the shorter waves of the ultra-red rays have the deepest penetration beneath the surface of the body and at a depth of 2.5 cm. the tissues are more warmed in a given time than the surface. We now know that it's not alone the invisible rays that exert therapeutic activity, for some of the visible rays have the same properties. The effects of the solar rays must in face be studied *in toto*. New methods have been evolved to measure the solar radiation intensities. The height and duration of the rays alike enter into computations and it is possible to measure the total intensity of radiation for a given locality over a stated time, so that climate becomes a quantitative science. The unit of measurement represents the total amount of calories for each square centimeter of surface, and the number of such units varies from such low figures as 1,227 for the winter months up to 30,380 for the summer months. A new method of measuring the ultraviolet ray intensity by means of the cadmium cell throws a further light on climate. The study of humidity has been similarly advanced with especial reference to the normal temperature of the body, and some older figures have been revised, the amount of vapor in the expired air being now placed at about 78 per cent. each cubic meter of expired air containing 33.3 gms. of aqueous vapor.

Autopsies upon Jews and Gentiles.—Writing in the *Boston Medical and Surgical Journal*, May 5, 1927, cxcvi, 18, Julius Gottlieb reviews the Talmudic literature concerning autopsy, from which he concludes that under no authority have necropsies been prohibited when good reason for their performance existed. With the failure to recognize the value of post-mortem examinations prior to the 19th century, the discussions relating to necropsies were based on purely sentimental considerations. The Jewish laity is generally of the opinion that autopsies are prohibited. It is conceivable that if the actual facts were brought to the attention of the Jewish people a great deal of the opposition would thereby be eliminated. Ginsberg of the Jewish Theological Seminary says, "About a century ago, because of the developments in modern medicine scholars began to discuss the question of autopsies and decided against them, which opinion is now considered authoritative by those who adhere strictly to Rabbinic law." He is, however, of the opinion that sooner or later the rigor of the law will have to be essentially modified. Gottlieb thinks that if this question were formally brought up before a proper Jewish representative body, favorable action would result. He suggests that the Jewish press be solicited to cooperate by granting space in its columns for the dissemination to the Jewish laity of information which will facilitate the breaking down of the present attitude against autopsies.

Elliott P. Joslin, in the same issue of the *Boston Medical and Surgical Journal*, states that in twenty-eight years of the practice of medicine he has had but one autopsy on the body of a Hebrew, though he has taken care of thousands of that race. Autopsies upon his patients have been of inestimable value to him and from them Jews and Gentiles have profited alike, though the former have contributed nothing. This is not fair or just, and he believes that if the purpose of the autopsy was properly understood Jews would contribute as much to the progress of scientific medicine in this line of research as they have so notably contributed to all other branches. Every other diabetic is operated upon before he dies, why then should not every diabetic be operated upon after he dies? An operation during life is attended with pain and is for the benefit of the individual; an operation after death is without pain and for the good of humanity. Joslin urges that old men and old women above all others should demand that autopsies be performed upon them, for the reason that in dealing with old people it is easy to think their troubles are due to old age and to cease to be aggressive in finding relief for their real complaints. Furthermore, the physician who knows that his method of treatment will be checked up by an autopsy will unwittingly take more pains with his patient. Every Jewish physician should arrange that a postmortem examination be made upon himself and one should take special pains in the families of Jewish physicians to secure permission for these examinations.

Lymphadenitis Treated by Vaccinotherapy. — Pierre Delbet supplements a communication published in 1923 on the tentative use of an auto-vaccine in lymphadenitis. During the interim he saw no patient with this malady until late in 1926, when one came to his clinic and was soon followed by a second. Both were subjected to autotherapy as follows: a portion of an affected ganglion was excised and after desiccation pounded into a pulp for injection. The results were startling. The first patient, a youth, developed adenopathy in the right groin five or six days after a suspected coitus. The lymphnodes were slightly tender and became fused with one another and adherent to the skin. The entire mass was the size of a hen's egg while a second agglomeration could be palpated in the iliac fossa. The injections caused no local reaction but the enlarged nodes, which had already showed some fluctuation, rapidly melted away. There were no traces save for the slight scar of the operating wound. The second case was somewhat different—a bilateral inguinal adenitis ushered in with fever. On one side the mass of glands was the size of the fist. Both required incision to give exit to pus with resulting fistulous openings. As there was no tendency to resolution the two masses were finally excised. All bacteriological examinations had been negative. Some of the nodes were left behind while the operation wounds continued to discharge freely. The injections were now employed, a pulp being made from some of the excised glands, and a course of five injections led to a complete recovery. In this patient some local reaction and fever were noted after the injections. The total number of cases treated in this manner is now five, all with success. Treatment by radiation and ultraviolet light was without result.—*Bulletin de l'Académie de Médecine,* April 5, 1927.

Casual and Unexpected Cures of Supposedly Incurable Skin Diseases.—Edward A. Blount (*Southern Medical Journal,* May, 1927, xx, 5), recalls that he once heard a distinguished French dermatologist remark, "once a psoriatic always a psoriatic," yet many patients have been cured of psoriasis. He cites as an instance an apparently hopeless case of this disease in which, to relieve the minds of those concerned, he prescribed large doses of strontium salicylate internally and an emulsion containing calamine and zinc externally. This patient was cured and never had a recurrence. Later he read of the intravenous use of salicylates, and began using a prescription consisting of lactic acid, acetic acid, salicylic acid, and liquor formalhyde each 3 drachms, bichloride of mercury, 4 grains, in alcohol up to eight ounces. In addition he employed ultraviolet light, which should be successful in psoriasis, as this disease seldom occurs in those parts of the body exposed to the sun. Endocrine therapy is also at times useful in psoriasis. Blount also cites two cases of vitiligo associated with endocrine dysfunction in which the vitiliginous spots disappeared following appropriate endocrine therapy. A most unexpected cure of vitiligo occured in a patient who had been treated in every other way unavailingly. While standing knee-deep in water in her bathtub, she switched on an imperfectly insulated electric light bulb, and caught the whole city voltage. She recovered from the shock within three weeks and was cured of the vitiligo. Needless to say, Blount does not recommend this heroic measure. Another unexpected result occurred in a patient with a geographical tongue, who was also a sufferer from an infected gallbladder. Intravenous injections of 31 grains of methenamine were given every twenty-four hours. Within six weeks the cholecystitis was well and also the tongue. In four cases of acne refractory to other methods of treatment a cure was effected with neoarsphenamine. In three of these the Wassermann reaction was negative and the patients were not informed as to the type of medication they were receiving.

Hereditary Cancer.—Auvray discusses both familial and hereditary cancer although the history of a cancer family described by him ought to be classed rather as hereditary than familial. The student of cancer family geneology must have remarked that as a rule the morbid growths appear in any locality, even at times in some in which cancer is extremely rare; that there is no type of cancer, but all forms of malignancy are represented. The fact that with the appearance of cancer in new generations the patients tend to develop the disease earlier and earlier in life probably accounts for the fact that acute cancer may be largely represented in families The author first describes two examples in which grandmother, mother, and daughter developed respectively cancer of the rectum, and cancer of the ovary. No other cases are mentioned in these families, so that we may speak of hereditary cancer, the type and location having been repeated in three generations. The law of progressive lowering of the cancer age seems to have been made good, for in the first family the ages were respectively 70, 65, and 54. In the other family the age of the grandmother is not given, but in the following generations it was respectively 55 and 27. It is not often that the medical man is fortunate enough to control three generations and it was made possible in this case only because Auvray succeeded to his father's practice and records. In the familial cancer history the author obtained his material from another practitioner, Guénot. In the first generation the father had what in all likelihood was cancer of the stomach, surely cancer in the abdominal cavity. Four children of the second generation died of cancer of the stomach, and of 12 children in the third generation four also have succumbed to the same disease. The fourth generation is thus far immune but the members are still quite young. Owing to constancy of type and location we should speak here of hereditary cancer.—*Bulletin de l'Académie de Médecine,* March 29, 1927.

Paget's Disease of the Nipple with Subjacent Canalicular Epithelioma.—G. Barbier of Marseilles relates the case of a woman of 52 of excellent health who had borne and nursed four children now living and well. Five months before, she had first seen a lesion of the right areola at the nipple base—a minimal excoriation which would heal under local applications but always reappeared quickly. A medical attendant had surmised the nature of the process, but a surgeon when appealed to declined to remove the breast. When seen by the author the lesion was still a crusted excoriation 6 by 4 mm. The nipple was depressed but not retracted and the somewhat fat breast seemed normal. A biopsy gave the diagnosis of Paget's disease and the breast was at once removed. There was nothing abnormal to the naked eye, but the microscope showed a canalicular epithelioma extending for a width of 7 or 8 mm. The breast itself showed chronic mammitis in evolution. This association of a superficial process with involvement of the subjacent canaliculæ has long been known to characterize Paget's disease. It explains the incurability of the superficial erosion and the ultimate involvement of the mamma. The author spoke of the erosion of the areola as "precancerous." In discussion Pautrier stated his belief that there was no precancerous lesions in Paget's disease but that from the first cancer was actually present. Milian has recently expressed the opinion that the lesion in the nipple infects the breast secondarily, his chief argument being that Paget's disease of typical appearance has been seen in such localities as the finger, the abdominal wall, and elsewhere where there is nothing analogous to a subjacent mammary gland. Darier referred to cases of Paget in which the breast is not involved and Milian spoke of a "pagetoid" epithelioma which is not a true Paget. The two opposed views seem irreconcilable, although recently attempts have been made to reconcile them.—*Bulletin de la Société Française de Dermatologie*, March 3, 1927.

The Precancerous Dermatoses. — Samuel Feldman discusses a group of dermatoses which are benign in their early stages, and may remain so for a long time, but ultimately a large percentage of them develop into cancer. By diligently watching and intelligently treating these lesions, cancer can be deprived of many of its victims. Foremost in this group of dermatoses are nevi, and especially the so-called soft verrucous nevi. Then there are the lentigos, dark brown or black spots about the size of a lentil which may result in general melanosis. The treatment consists of radium, x-rays, carbon dioxide snow, and endothermy, the last being by far the safest and most effective. Surgical procedure in these cases is dangerous unless a large area of healthy skin is removed with the lesion. All nevi, whether brown or black, should be removed. Warts are important for the reason that some epitheliomata start in warty growths and should not be mistaken for warts. Special care should be exercised when a wart appears singly in a location where cancer is frequent, and on a base which predisposes to cancer formation. Senile keratosis, although not extremely malignant, should receive attention. These keratoses may be removed by means of soft soap poultices or salicylic acid ointment and the destruction of the base of the lesion by monopolar endothermy. In the author's hand the x-ray has not given good results. Presenile dystrophy and xeroderma pigmentosum, which result from undue exposure to inclement weather in the case of the former and to sunlight in the case of the latter, should be destroyed as soon as they make their appearance and further exposure should be avoided. Leukoplacia, in mild cases, may be treated with arsphenamine, but if resistant to ordinary treatment, will heal readily under small doses of radium or x-rays. Very thick patches may be destroyed with monopolar desiccation, while beginning cancer requires removal with the endothermy knife. Paget's disease and Bowen's disease both demand radical removal, preferably by coagulation. Although radium and x-ray may be efficient in a number of cases, in the main they are not satisfactory. The fact must not be overlooked that cancer occurs in the site of old scars, ulcers, fistula, syphilitic gumma, and lupus. Occasionally it complicates skin malformations and benign tumors, notably dermoids and wens.—*Medical Journal and Record*, April 20, 1927, cxxv, 8.

Petit Mal or Cardiac Disturbance?—G. A. Sutherland cites several cases illustrating the error in diagnosis that may result from failure to recognize that certain forms of cardiac disturbance may cause symptoms closely simulating those of petit mal. In attacks suggestive of petit mal there may be present at times a condition of tachycardia, with pulse rate of over 160 per minute, without other obvious cardiac changes. Such attacks may be characterized by loss of consciousness, screaming, giddiness, falling down, and sensations of pain in the chest or abdomen. The attack is usually sudden in origin, brief in duration, and sudden in cessation. The symptoms of an attack are present only during the period of paroxysmal tachycardia, and usually accompany the onset of a new cardiac rhythm. An attack is often definitely induced by excitement, nervous shock, or exertion (running, etc.). While an organic basis of disease of the heart may be present, a similar condition of paroxysmal tachycardia with symptoms may occur in children with organically sound hearts. When the symptoms above outlined are manifested before the child can describe sensation they may easily lead to a mistaken diagnosis, especially if the doctor does not see the patient during an attack, and does not examine the heart at the same time.—*British Journal of Children's Diseases*, January-March, 1927, xxiv.

LEGAL

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THE HOUSE OF DELEGATES OF THE A.M.A. TAKES ITS STAND AGAINST THE ENACTMENT OF RESTRICTIVE LAWS REGULATING THE DOCTOR'S RIGHT TO PRESCRIBE SUCH THERAPEUTIC AGENTS AS HE MAY DEEM NECESSARY

At the meeting of the House of Delegates of the Medical Society of the State of New York held in Niagara Falls on the 9th day of May, 1927, the following resolution introduced by Dr. T. C. Chalmers was adopted:

> "Resolved, That the House of Delegates of the Medical Society of the State of New York at its annual meeting at Niagara Falls on May 9, 1927, and representing, as it does, more than ten thousand duly licensed physicians of this state, mindful, as it is, of the solemn duty of the doctor to render to his patient whatever treatment the true teachings of science declare to be necessary or beneficial in caring for the sick, and resenting with stern disapproval any arbitrary and unscientific curtailment of this obligation, realizing full well that to prevent the physician by arbitrary regulation from using for his patients' benefit whatever therapeutic agent his scientific knowledge and his conscience dictate, emphasizing its disassociation with any political issue, commonly referred to as "wet" or "dry" in unmeasured terms condemns this unjust, unwise, unsound, arbitrary and unscientific curtailment of and reflection on the medical profession as a whole, and therefore, not in its own behalf but in that of the lay public, whom it seeks to serve, earnestly petitions for the immediate repeal of this section of the Volstead Law, and, be it further
>
> "Resolved, That the delegates from New York State to the House of Delegates of the American Medical Association be instructed to present and by all proper means to advocate the adoption of a memorial to the Congress of the United States, demanding the immediate repeal of that section of the Volstead Law and to employ all legitimate and honorable means for the education of the American public on this vital question."

At the meeting of the House of Delegates of the A. M. A. held at Washington on May 18th, the resolution of the New York State Medical Society was referred to the Reference Committee on Reports of Board of Trustees and Secretary. The report of this Reference Committee was adopted. In that report, among other things, we read:

> "The condition of hysteria into which the country was thrown by the struggle over the prohibition amendment has apparently subsided and the time has come when the American Medical Association should state plainly its attitude with regard to the use of alcohol and alcoholic liquors as therapeutic agents, as well as the position in which the physicians of the country are placed by the present unfortunate state of affairs. Such a statement should have no political bearing whatsoever and is intended to deal with the matter only from the practical and scientific medical standpoint. Alcohol is often very helpful in the treatment of disease and is being used in the practice of a very large number of doctors, many of whom believe it to be an essential and life-saving remedy. These doctors are confronted by a most deplorable situation brought about by the framers of the Volstead Act who unintentionally, we believe, limited the amount of alcohol for one patient to a pint in ten days. Such physicians believe that in certain cases of serious illness a pint in ten days would be useless, and that law-abiding physicians have no other alternative than to violate the law in order to save life. This is wrong and should be corrected. We believe it will be promptly corrected if the situation is properly presented to the authorities in charge."

Further in its report which was adopted, the Reference Committee recommended the adoption of the following resolution:

> "Resolved, That the American Medical Association declares its adherence to the principle that legislative bodies composed of laymen should not enact restrictive laws regulating the administration of any therapeutic agent by physicians legally qualified to practice medicine."

And further the report advised a referendum to be sent to all of the duly licensed physicians of the country, which should seek answers to the following questions:

> "(a) Do you believe that legislative bodies should enact laws regulating or limiting the prescribing of therapeutic agents by legally qualified physicians?
>
> "(b) Do you believe that alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia are useful therapeutic agents in the treatment of disease?"

And finally this resolution was recommended and adopted:

> "Resolved, That the trustees of the American Medical Association be requested to send to every registered physician practicing in the United States a ballot requesting him to vote on the following question:
>
> " 'Are alcohol and alcoholic liquors as listed in the latest edition of the United States Pharmacopeia, useful therapeutic agents in the treatment of disease?'
>
> And be it further
>
> "Resolved, That the trustees of the American Medical Association be requested to submit the returns of this questionnaire in a memorial to Congress, asking that the restrictions on the quantity of alcohol and alcoholic liquors that may be prescribed for the sick be removed."

Stimulated, no doubt, by the stirring resolution which Dr. Chalmers carried through the House of Delegates of the New York State Medical Society, the A. M. A. has thus come forward boldly and bravely in defense of the qualified doctor's right to prescribe whatever in his judgment is best for his patient. This great representative body of physicians of America thus strikes a blow in the cause of liberty itself.

If Congress has the right to say how much alcohol a physician may prescribe, it would have an equal right to tell the doctor what amount of insulin should be used for diabetes, or when, under what circumstances or in what amount any other drug or therapeutic agent might be employed for the alleviation or the cure of disease. The assertion of such a right is tantamount to a return to the Dark Ages. It is a negation and a repudiation of all of the teachings of science, and is a declaration that laymen are more competent to prescribe and advise for human sickness than are those who have spent their lives in this scientific study and who have been authorized by the State itself to carry on the work for which, through years of study, experience and hard training, they have become equipped.

This subject wisely has been taken out of the controversial political domain involved in the so-called wet and dry issue. Doctors as such have no interest in either side of that bitter and unending dispute. They are taking no position either for or against the "Wets" or the "Drys." All that they say is that in certain cases one pint of alcohol in ten days for a patient would be useless. Recognizing this, many doctors no doubt, confronted by a choice of evils, that is, the breaking of a law or the failure to save life, have deemed it necessary to select the former as the lesser of the two. This is a deplorable situation. It should be changed. And now the doctors are doing all within their power to bring about a change. They deserve, they should receive and they have received the commendation of every fair-minded and intelligent citizen of the United States.

Warmly commending the action of the American Medical Association, the New York *World* in an editorial declared:

> "There is no question where responsibility for this situation lies. It lies in the hands of Congress. The Supreme Court has upheld the right of Congress to limit the use of alcohol by the medical profession. But there is no act of God or man requiring Congress to believe that it knows more about the problems of the medical profession than the medical profession knows itself. And if the medical profession appeals to Congress, when it meets again, to revoke its fiat, the appeal is likely to receive a more reasonable answer than it would have received five years ago. For we are getting away from the notion that the Volstead Act is perfect, that sickness as well as morals can be put in nice categories by law, and that Congressmen are all-wise as physicians."

No intelligent person with an open mind, regardless of his approval or disapproval of the Eighteenth Amendment and the Volstead Act, can fail to commend and endorse this action of the great national body of physicians of America. Let us hope that this intelligent, scientific, strong and patriotic move will force our Congress to eliminate from its laws all statutory attempts to curtail science and to prevent the physician from rendering to his patient all the service, care, attention and therapeutic agents which, in his judgment based upon his scientific knowledge, study and experience, he may deem necessary.

CLAIMED ARSENIC POISONING

A physician, while in attendance at the clinic of a hospital, saw a patient who complained of pains in the hands and forearms, with numbness in the hands, and that the condition had existed for about two months. She also gave a history of having had much domestic worry for the past several years, was extremely nervous, had slept poorly and had bad dreams. She had also suffered from a slight indigestion and noticed that her eyelids had been slightly swollen.

Upon examination, the physician found that her eye grounds showed slight fuzziness of the lower edges of both discs. Her heart showed a pre-systolic murmur at the apex and thrill accentuated second pulmonic sound. Examination of the lungs showed crepitant rales at both bases and right axillary region. Her tonsils were hypertrophied and cryptic. A diagnosis was made of neurosis. For her muscular pains a rheumatic mixture was prescribed which, on her second visit to the clinic, she complained had made her sick to her stomach, although the pains were less. In substitution for the rheumatic mixture she was given five grams of sodium salicylate four times a day with three-quarters of a grain of luminal twice a day.

On her third visit to the clinic she was advised to have an X-ray of her teeth and given a general tonic for her nervous condition.

When next seen, she stated that her arms had been better for several days. The X-ray of the teeth showed an abscess of the second upper left bicuspid, and she was advised to have the abscessed tooth removed.

She returned about two weeks later with a rash on her forearms and left arm above the elbow which was confluent and itched. A rash was also present over the back of both legs below the knees and particularly extensive about the ankles. For the relief of this condition she was given calomine lotion and a digestive mixture of rhubarb and soda with cascara, and was also advised to take one-half ounce epsom salts on the following morning. This was the last time that the patient visited the clinic.

Nothing further was heard from this patient by the physician until about a month later when he received a telephone call and a man inquired as to the treatment that the patient had received.

About a month thereafter, a person called on him at his office, stating that he was a justice of the peace and that the patient for the past month or more had been ill in a hospital in New Jersey and that the doctors treating her had diagnosed her condition as arsenic poisoning. The person calling upon the doctor endeavored to procure a settlement from him. The doctor, not acceding to the demands of his caller, was subsequently made a party defendant in an action of alleged malpractice. In this action it was alleged generally that the defendant physician in his treatment of the plaintiff was negligent and careless and had improperly prescribed for her, and that by reason thereof she was rendered sick and disabled and confined to her bed and home for about nine months.

It was also charged by the plaintiff that the defendant was negligent in having prescribed a drug containing too much arsenic and that the plaintiff suffered from arsenic poisoning, requiring treatment for about three months.

The plaintiff, not making any serious attempt to bring this action on for trial, in due course a motion was made on behalf of defendant doctor to dismiss the same for lack of prosecution, and upon the return of the motion an order was granted dismissing the complaint.

RETAINED PLACENTA—VAGINAL FISTULA

An action was instituted against a physician and a mid-wife.

The complaint charged that on the 9th of July, the plaintiff, being pregnant and about to give birth, engaged the defendants, who represented themselves to be a skillful physician and a skillful midwife, to deliver her of her child.

It was charged that they both negligently and unskillfully conducted themselves, causing the patient to be lacerated and torn and also causing the death of the patient's child; that by reason of the acts of the defendants the patient was permanently and seriously injured and her physical, mental and nervous system impaired, and she sought in this action to be compensated for these injuries.

About 6 o'clock on the morning of July 11th, the defendant physician was called by the plaintiff's husband. Upon arriving at the patient's home he found a midwife in attendance upon the patient and several other women present. The midwife stated that the patient was not having any labor pains. The physician found the patient in bed with the head of the foetus delivered and the remaining parts in the vaginal canal and uterus. The physician told those present that the child was dead. Upon examination of the patient he found her pulse and heart fair. She had a temperature of about 100°. The patient stated that she had been having pains for the past two or three days, but the pains had gradually grown weaker, and also stated that she had not felt life for about two weeks.

The physician observed the patient for some time and saw that the pains came irregularly and from two to ten minutes apart and were very light.

The patient not making any progress, another physician was called in consultation. An anaesthesia was administered to the patient and the child delivered by a low forceps extraction. The physician found the foetus full sized, pale, jaundiced and lifeless and, judging from its appearance and odor, he was of the opinion that the foetus had been dead at least two weeks. The cord was tied and cut and the patient left in bed resting quietly. An attempt to deliver the placenta was not successful.

The defendant left the patient about 9 A. M. in the care of the other physician. He returned at about 10:15 A.M. and found that the placenta had not as yet been delivered. He ordered whiskey and water as a stimulant and no other medication. He returned again at about 5:30 P. M. and found the patient in the same condition, resting quietly. The placenta had not been delivered and there was no bleeding. The patient's pulse was a little rapid and she complained of some pain in the lower abdomen. At this time the defendant physician advised the husband that if the placenta was not delivered before the following morning he would call to his assistance another physician to aid in the delivery of the placenta.

On July 12th, at about 8 A. M., the physician called on the patient and upon examination found her in very poor condition. He explained to the patient's husband the condition of the patient and requested that the patient be sent to the hospital, but the husband refused to send the patient to the hospital. At this time the patient's pulse was about 120 and the temperature 101 degrees. The defendant then procured the written consent of the patient's husband for the delivery of the placenta and, under a general anaesthesia administered by another physician, the placenta was delivered without difficulty, the patient being in a serious condition during all of this time. After the delivery of the placenta the uterus and vaginal canal were irrigated with a weak iodine solution. The placenta, upon examination, was found not to be the usual healthy placenta; it was dry, putrid, grayish looking and slightly smaller than the normal placenta. There was no bleeding but there was a small serous discharge. Upon completion of the delivery of the placenta the patient was returned to bed and a stimulant of whiskey and water ordered for her, and also plenty of fluids.

The patient's temperature continued for about ten days, gradually diminishing to normal. During the next sixteen days the patient was seen ten times by the defendant physician. The lochia was a putrid, greenish-yellow discharge, and the physician ordered lysol douches externally.

During defendant's post-delivery attendance upon the patient she remained in a generally weakened condition. Strychnine and whiskey were ordered and plenty of fluid food. He also prescribed soap suds enemas when necessary. The patient was in bed all of this time.

About July 20th, the defendant physician informed the family that he would leave for his vacation about the first of August and would arrange for another physician to take his place. On the day of his last visit to the patient, July 27th, he was informed by the patient's family that they would get a doctor to attend the patient.

On August 14th the patient was removed to a hospital with a diagnosis of vaginal fistula. She was discharged from the hospital on August 21st. No diagnosis of a vaginal fistula was made by the defendant physician at any time.

The uterus was contracting but had not completely resolved when the patient was last seen by the defendant physician, on July 27th, and the uterus could be palpated above the brim of the pubic arch when the defendant last saw the patient.

When this case came on for trial the plaintiff failed to sustain her complaint against the defendant physician and at the close of the plaintiff's case the action was dismissed as against him.

NEWS NOTES

THE TRI-STATE CONFERENCE

The sixth Tri-State Conference of the officers of the Medical Societies of New York, New Jersey and Pennsylvania was held in the Hotel Casey, Scranton, Pa., on Saturday, June 18, 1927, with the following officers present:

From New York, Dr. J. E. Sadlier, President, Dr. H. R. Trick, President-elect, Dr. J. S. Lawrence, Executive Officer, and Dr. Frank Overton, Executive Editor.

From New Jersey, Dr. Walt P. Conaway, President, Dr. J. B. Morrison, Secretary, and Dr. H. O. Reik, Editor.

From Pennsylvania, Dr. H. W. Albertson, President, Dr. A. C. Morgan, President-elect, Dr. Frank C. Hammond, Editor, Dr. Walter F. Donaldson, Secretary, and Dr. L. G. Redding, President of the Lackawanna County Medical Society. These were the guests of the Medical Society of the State of Pennsylvania at a noon luncheon.

The Tri-State Conference was designed to afford the officers of the three State Societies the opportunity to discuss the problems which are common to the medical profession of the three states. Concerning the value of the conference, Dr. Fisher in his annual report said:

> "About two years ago, representatives of the Medical Societies of New Jersey and Pennsylvania approached us with the suggestion of holding a conference between the officers of the three Societies, for the purpose of discussing certain medical questions that involved the three states, with the idea, of probably suggesting uniform legislation.
>
> "The first meeting was held in Atlantic City a year ago last November. Since then there have been four conferences; one in Philadelphia, one in Atlantic City and two in New York, at which such subjects as, 'The Nurse Question,' 'Workmen's Compensation,' 'Anti-Quack Legislation' and 'Relations of the Medical Organization to Voluntary Public Health Agencies'—have been discussed with great profit to all. We are learning that some of the problems that give us the greatest concern in this state, are common to the three states, and, in some instances, they have given us suggestions with regard to their solution, while to the solution of others we have been able to contribute from our experience.
>
> "These conferences should be continued, in my opinion, not only because of the advantages which arise from a discussion of common problems, but for the sake of developing a closer fraternal spirit with these two powerful neighboring Societies" (page 455 Journal of May 1).

The House of Delegates endorsed the recommendations of Dr. Fisher, (See Sec. 52 of the minutes, Journal of June 15, 1927, page 680).

The conferences have been of increasing value as those attending them have become better acquainted with one another and with the problems in the three states. The fourth conference, held in Atlantic City on December 4, 1926, was noted for its informal discussion of problems of great practical value (see this Journal December 15, 1926, page 1049).

The fifth conference, held in New York City on February 26, was devoted principally to a more formal discussion of problems which are being handled by the State Society of New York (see this Journal, March 15, 1927, page 316).

The Scranton conference was even more practical than the others, for it was based on the foundation of understandings and acquaintances that had been formed in the preceding conferences. Two subjects were discussed, 1. Educating the Public in Medical Matters; and 2. The statewide anti-diphtheria campaign.

The subject of the medical education of the public was presented by Dr. Frank C. Hammond, of Philadelphia, editor of the *Atlantic Medical Journal,* the official organ of the Medical Society of the States of Pennsylvania and Delaware. Dr. Hammond reviewed the field of public education in medicine and quoted at length from the addresses of the last President of the American Medical Association, Dr. Wendell C. Phillips, who had continually emphasized lay medical education throughout his year of office. Dr. Hammond ascribed to the Illinois Medical Society the leadership among the states in promoting the education of the people and said that $2.86 of the annual dues of each member were devoted to this work. The State Society had listed a large number of physicians who were willing to give popular lectures to organizations such as parent teachers association, Rotary clubs and high schools. Newspaper articles were widely used, radio talks were given, movies on health topics were shown, and an extensive campaign of instruction was conducted along every standard line in which the people could profit by medical instruction.

The State of Texas was also quoted as doing advanced work in lay medical education, especially by the extensive use of paid advertisements in the newspapers. Dr. Hammond quoted from an Illinois report regarding the reactionary attitude of unorganized doctors (non members of county societies) toward civic problems, and the very great contributions of organized medicine to citizenship.

Dr. Sadlier reported for New York State that popular medical education had been done extensively by the State Department of Health and voluntary health organizations, especially the State Charities Aid Association. The State Medical Society was now entering the field actively in an advisory and directive capacity and was securing harmony and avoiding duplication of efforts by the functioning of a committee on public relations. The next step would be to secure the appointment of a committee on public relations in every county medical society, in order that the physicians might assume the leadership in all medical matters in their respective counties.

Dr. Sadlier quoted the experience of the New York State physicians with periodic examinations to illustrate the need of the education of the people in health topics. While talks and lectures have been given urging persons to go to their family physicians on their birthday and secure an examination and a survey of their physical condition, yet the people are so far from accepting the advice that doctors feel it to be presumptuous on their part if they solicit the examinations.

Dr. Sadlier also said that the older doctors were making the examinations to a much greater extent than the more recent graduates. This fact is surprising, for one would expect the young doctors to be fully informed regarding the newer developments of medicine. Dr. Sadlier said that the New York State Medical Society was planning to invite the Deans of the Medical Schools to a conference to consider the education of the students in the subject of organized medicine; and that periodic examinations would be an important subject for discussion.

Dr. Morgan said that he had addressed a medical meeting at which sixteen pre-medical students from a local college were present, and he talked on the subject "How to Run a County Medical Society." He believed that such lectures should be given to all medical students.

Dr. Morgan also said that the Philadelphia County Medical Society had admitted Junior Members consisting principally of hospital internes (The Kings County, of Brooklyn, has provision for a similar membership).

Dr. Hammond called attention to the course of six lectures given in the Washington University School of Medicine, St. Louis, which was described on page 1751 of the May 28th issue of the *Journal of the American Medical Association.* While these dwelt largely on the ethical relations of physicians to one another, they could be expanded to include their duties to the medical societies and to the public.

Dr. Overton contrasted the attitudes of the people toward periodical examinations with that toward diphtheria prevention in which an intensive campaign of public education had been conducted. The result has been that the children flock to the clinics where the immunizations are given, and parents are bringing increasing numbers of children to their family doctors for the injections. Periodic examinations will become popular when the people become educated as to their value.

Dr. Conaway said that New Jersey had taken up the problem of the health education of the public a year ago, and that Dr. Reik, the Executive Secretary had spent about half of his time going about the state in order to lecture to county societies and lay organizations on public health topics. The work was so important and promising that the State Society had made a special appropriation of $4,000 for public health education. New Jersey plans to abandon the plan of a lobbyist in the State Capitol and to conduct the legislative campaign by means of education. The State Society expects much help from the Women's Auxiliary in the educational work, and will use the film on periodic examinations. Dr. Conaway urged the doctors to assume the leadership in public education as in other health matters, for it is one of the most important of the newer activities of the medical societies.

Dr. Reik brought up the subject of the need of censorship, supervision and criticism of radio talks on health subjects and said that the Radio Corporation of America had an advisory board representing various professions which reviewed the matter that was broadcasted. On motion of Dr. Morgan the resolution was passed suggesting that a physician be put on the advisory board.

Dr. Morrison said that the greatest activity of a State Medical Society is the education of its own members, especially in their civic duties. A year's presidency of a Kiwanis Club gives a man a civic outlook that is broader than that supplied by fifteen years of the office practice of medicine.

Dr. Albertson said that the majority of County Medical Societies in Pennsylvania published monthly bulletins, and that they often contained articles for educating the people. He also discussed the kind of articles which both the newspapers and their readers demanded. He condemned the ordinary health columns in which the correspondents gave symptoms on the basis of which the editor was expected to make a diagnosis and to advise treatments. Medical Societies could not stand for that sort of so-called medical education.

Dr. Albertson said that in his inaugural address last fall he had proposed that the State Society take up the activity of the education of the public in health matters and that a plan would probably be adopted at the annual meeting in Pittsburgh early in next October. He said that his State Society had taken up the plan of advocating a periodic examination of every person on May day, but that many doctors had objected to it because some public health nurses had urged some people to go to clinics for the examination. There is great need that the educational programs be started with the doctors. Pennsylvania needs a fulltime field secretary in order to conduct the work of educating both the doctors and the people.

Dr. Hammond described the plan of the Philadelphia County Medical Society in publishing medical articles in a Philadelphia newspaper under the name and authority of the Society. He also said that health articles were broadcasted with the names of the authors; and then the names were omitted when some physicians made objection on the ground of advertising; but later the names of the authors were again announced, for it was the policy of the radio managers to give full publicity to the authors of whatever was broadcasted.

The second major topic that was discussed in the Tri-State Conference was the state-wide anti-diphtheria campaign. Dr. J. S. Lawrence gave a description of the work in New York State and showed how it depended on two principal factors, 1. The support of physicians, and 2, the education of the people. Dr. Lawrence said that his talk would be a demonstration of medical publicity and education as applied to one concrete disease. He described the two principal methods of securing the immunization of the children by means of injections of antitoxin, 1, by means of public clinics, especially in the schools; and 2, by ordinary office calls on private physicians.

Dr. Lawrence first described the development of the plan of campaign by a committee representing the State Medical Society, the State Department of Health, and the leading voluntary organizations. The plan included the endorsement of the County Medical Societies, articles in newspapers, posters on bill boards, and in doctors' offices, slides in moving picture houses, and many other devices used in public health campaigns.

Dr. Lawrence described the work in the two cities of Newburgh and Schenectady in order to illustrate the two principal methods of dealing with the children to be immunized. Newburgh adopted the methods of an intensive campaign conducted by all the available organizations headed by the Newburgh Bay Medical Society and including public health nursing societies, parent teachers associations, civic clubs, churches, newspapers and a long list of other organizations. The actual immunizations were given in clinics conducted by the physicians, with the help of the civic organizations for the transporting and care of the children. The campaign was a great success, and the expectation is that as a result the people will go voluntarily to their family doctors to have their children immunized in the future.

Schenectady had adopted the plan that no public clinics should be held, but that the physicians should hold themselves ready to give the immunizations to the children that were brought to their offices. The Schenectady County Medical Society sponsored the plans which were adopted and included the appointment of a work-committee, the employment of a paid secretary, the distribution of literature, a house to house canvass, the cooperation of public health nurses and provisions for recording and summarizing the number of immunizations given. The results have been slow as compared with those in Newburgh, but nevertheless they have been valuable and will probably be permanent for they do not depend on free clinics.

Dr. Walter F. Donaldson described the methods followed in some of the counties of Pennsylvania, that in Cambria County being the most striking. The county has a population of 217,000 and has a mining population that includes the City of Johnstown. The plan of work was that the Red Cross assumed the leadership. Its representatives secured the consent of the parents and brought the children to central clinics which the doctors attended in alphabetical relation, each receiving $25 — for a day's work. The work was a great success, 17,000 children being immunized within the year.

Dr. Donaldson described the different plans that were adopted in some other counties with varying degrees of success depending largely on the cooperation of the physicians.

Dr. Morrison said that New Jersey was now planning to start the immunizations on a state-wide basis, but the State Medical Society had declined to assume the leadership on account of the cry of "Medical Trust." However, the State Society had asked the State Board of Health to assume the leadership and had promised to support the movement. The plans include the cooperation of the State Tuberculosis Committee and other voluntary health organizations.

Dr. Morrison spoke in favor of the plan that the physicians should assume the leadership in the anti-diphtheria campaign, and said that the doctors who would not cooperate in the campaign were forcing the issue of State Medicine, for other organizations would assume the leadership and would do the work under the very plan of State Medicine that the doctors wished to avoid.

Dr. Hammond said that there was need of educating the doctors of Philadelphia, for many physicians were indifferent simply from ignorance. The City Board of Health had promoted the immunizations, but much educative work would have to be done among the doctors.

Dr. Leonard Redding brought up the objections which many doctors have to giving their services to clinics free. Many physicians had said that the doctor should not be expected to give his services free any more than that the grocer should give away sugar.

Dr. Sadlier said that this objection would have to be met by the education of the doctors in their civic duties. If there was a great work in medical civics to be done, the doctors should rise to the opportunity and do it. He quoted the example of an elderly health officer who had immunized several hundred children without expecting pay, because all he wanted to do was to suppress diphtheria. In the adjourning district nothing was done while the doctors were waiting for pay.

Dr. Morrison said that ten years from now the doctors will be receiving their pay in thousands of dollars for immunizations which the doctors were now doing without primary regard to the financial returns. The doctors need to have a broad outlook beyond the immediate present.

Dr. Albertson said that if State Medicine comes it will be because some doctors are willing to accept a few dollars for paltry work. The great need was that the officers of the societies should go back to their constituents and give them some of their enthusiasm and outlook into the future.

Dr. Trick said that if the public will contribute the organization and the money, the doctors should be willing to make their own peculiar contribution of professional skill; at least as a demonstration of the value of a public health procedure. The selfishness of individuals should not stand in the way of the medical profession doing civic work.

The entire conference was characterized by the profuseness and practicality of the ideas that were presented. Every doctor present gained new ideas and inspiration as he saw how the different counties and states had evolved their solutions of problems that were common to all.

DISTRICT BRANCH CONFERENCES

The coming annual meetings of the District Branches have been planned in a series of conferences of the officers of the State Society with those of the District Branches and their component county societies after the precedent that proved successful last year. The following is a record of the conference held in each of the eight District Branches.

FIRST DISTRICT BRANCH

At the invitation of Dr. Cunniffe, President of the First District Branch, the following responded to a meeting of the Executive Committee which was held at the Cornell Club, New York City, on Tuesday evening, June 7, 1927:

Dr. Cunniffe, President; Dr. Kline, 2nd Vice-President; Dr. Clock, Secretary; Dr. Howell, Treasurer; Dr. Titus, President of Westchester County Society; Dr. Friedman, President of Bronx County Society; Drs. Sadlier, Farmer, Dougherty and Lawrence. Dr. Patterson, President of New York County Society, was unable to attend, but requested that Dr. Dougherty, the Secretary, represent him.

It was decided that the next annual meeting of the District Branch should be held in the Bronx on Thursday, October 20th. Suggestions for the program included short papers on preventive medicine, post-graduate education and periodic examination, and two or three scientific papers to be read by men prominent in their particular fields. In this connection the following were suggested: Dr. Judd, Drs. Minot and Murphy, and Dr. Healy.

That the attendance at the First District Branch meeting has never been as large as it was thought it should be, was attributed in part to the meager announcement, and it was decided that this year at least three notifications should be sent to each member in the District concerning the time, place and program. It was also suggested that in the first announcement each member be notified that by virtue of being a member of the County Society, he is a member of the District Branch and is, therefore, expected to attend the meeting if possible. It was brought out that in the past some men have expressed surprise when told that there was a District Branch Society and that they were members of it.

Dr. Sadlier urged the officers to realize that they have an opportunity of developing in their district a large and important meeting. He called attention to the discussion that was had in the afternoon with members of the Second District Branch, where he made the same suggestion. He thought that because of the large membership of these two District Branches and the compactness of their territory, their annual meetings should rival the State Society meetings in attendance and importance.

Dr. Farmer outlined the program of his Committee and invited the officers of the County Societies to call upon him for assistance in developing courses of post-graduate education. He stated, however, that he is thoroughly familiar with the splendid work that New York and Bronx counties have been doing, and supposed they mean to continue it, but he thought that probably his Committee could be of service in the other counties. He called attention to the important Committee on Public Health that every County Society should have and urged that if any of the counties represented does not have such committee, that it create one of the earliest opportunity, and he outlined to some extent the work and importance of such committee.

Dr. Friedman briefly outlined the splendid work that is being done by the Bronx County Society, especially in the field of periodic examinations. He described the pamphlet that his Society has prepared in collaboration with the New York Tuberculosis Association and which is being distributed by the members of the County Societies to their patients.

Dr. Howell stated that Orange county has a very active Public Health Committee. Dr. Kline spoke in praise of the excellent work that was done in Rockland county through the post-graduate lectures on obstetrics and pediatrics. He also commented upon the diphtheria immunization activities, but deplored that most of it is being done by health officers instead of practicing physicians.

Dr. Dougherty told of how periodic examination activities were started in New York county, how Dr. Wightman prepared the film which is widely known by this time, and also of the pamphlets that were prepared in collaboration with the Tuberculosis Association and distributed by them to the lists of patients submitted by physicians.

Dr. Cunniffe stated that he would immediately give to the press an announcement concerning the annual meeting.

SECOND DISTRICT BRANCH

The Executive Committee of the Second District Branch was called in conference by the President, Dr. Turrell, on Tuesday, June 7, 1927, at the Shinnecock Hills Golf Club, Southampton, where the Associated Physicians of Long Island was in session. Those present were: Dr. Turrell, President; Dr. Thomas, President of Queens County Society; Dr. Overton, President of Suffolk County Society; Dr. Sadlier, Dr. Farmer, Dr. W. H. Ross, Dr. VanCott and Dr. Lawrence.

The date and place of the next annual meeting of the Branch were discussed at length, and it was decided tentatively that the meeting should be held in Jamaica in a hall near the railroad station, and one some date in October.

In discussing the program it was decided to repeat that portion of the program of last year which dealt with a review of the activities of the component County Societies, because it was agreed that this was a very successful feature. In order to evaluate more properly the activities of the counties, it was suggested that persons well informed in anti-tuberculosis work, as, for instance, Dr. Rathbun of Chautauqua county, and a representative from Cattaraugus county and another from Syracuse, be invited to tell, at the same time, of the anti-tuberculosis activities in their communities.

It was also agreed to invite two or three leading scientists to read papers. Much consideration was given to the discussion of plans that would increase the attendance at the annual meeting. It was deplored that, regardless of the excellent program last year, the attendance was very small. It was thought that the drawback in the past has been that the meeting and its program were not sufficiently advertised and it was, therefore, agreed that for this year the program should be completed as early as possible and that several notices should be sent to every physician in the District beginning probably three weeks in advance of the date of the meeting. The desirability of sending invitations to physicians outside of the District, in counties neighboring the Second District, was favorably considered.

THIRD DISTRICT BRANCH

The Executive Committee of the Third District Branch met in the University Club, Albany, at 1:00 P. M., Wednesday, June 1st, at the call of Dr. Edgar Vander Veer, the President. The following were present in addition to Dr. Vander Veer: Dr. Rossman, 2nd Vice-President; Dr. Rapp, Secretary; Dr. Billings, Treasurer; Dr. Odell, 1st Vice-President; Dr. Mambert, President of Columbia County Society; Dr. Cox, President of Albany County Society; Dr. Hambrook, President of Rensselaer County Society; Drs. Farmer and Lawrence.

It was decided to hold the next annual meeting on Saturday, October 1st, and Dr. Hambrook's invitation to have the meeting in Troy was accepted. Dr. Hambrook explained that they have a new hotel—the Hendrick Hudson—which could very readily accommodate any number that might choose to come. It was decided that the program should consist of a series of clinics on important subjects, given at the several hospitals in Troy in the forenoon, followed by a luncheon at the Hendrick Hudson and, subsequent to that, a series of scientific papers.

No readers of scientific papers were decided upon at the meeting. Dr. Hambrook suggested that there are several men in Troy who have done work of outstanding character, and he was quite certain that he could get some of those to take part in the program. He also suggested that, in anticipation of the acceptance of his invitation, he had already considered the appointment of a committee on arrangements.

Dr. Farmer urged the members to avail themselves of the opportunity for post-graduate work, and discussed with members the reasons advanced for the lack of success in some of the courses that were attempted in this district a year ago. There was some preference expressed for a course of lectures on cancer.

Matters of local interest were then brought up for discussion. Among them was a report that the enforcement of the law which requires examination of the eyes of applicants for motor licenses is being left to state troopers and not to physicians. It was suggested that the executive officer make inquiry from the proper authorities as to the prevalence of this practice.

Dr. Rapp reported that in Greene County the State Department of Health has, for some time, been endeavoring to conduct well baby clinics, but that he, as health officer of one community—and physicians generally—have objected to this activity on the part of the Department on the ground that it is not needed; that the physicians are giving the children all necessary attention, but that the agent of the Department of Health has been so insistent recently that, without the consent of the physicians, Dr. Rapp understands he has arranged for such clinics and, so far as Dr. Rapp knows, no physician has accepted an invitation to assist at the clinics. This being a matter of public health, Dr. Farmer said that he would be glad to be kept in touch with the situation and that, if advisable, he would discuss the matter with Commissioner Nicoll.

Before adjournment, it was suggested that inasmuch as there seemed to be other matters of interest in the district that should be discussed, President Vander Veer probably would call another meeting of the committee before the annual meeting.

FOURTH DISTRICT BRANCH

At the request of Dr. Barton, President of the Fourth District Branch, the following met in executive committee at the Queensbury Hotel, Glens Falls, on Thursday, June 9, 1927: Dr. Barton, President; Dr. Munson, 1st Vice-President; Dr. Comstock, Secretary; Dr. Reynolds, President of St. Lawrence County Society; Dr. Fox, President of Montgomery County Society; Dr. Prescott, President of Washington County Society; Dr. Birdsall, President of Warren County Society; Drs. Farmer and Lawrence. Dr. King, President of Saratoga County Society, wired that he was sick in bed, hence it would be impossible for him to attend the conference.

In discussing the time and place of the next annual meeting there was general approval expressed at the plan adopted last year of having the meeting begin at noon of one day and extend to noon of the next day, because it gave an opportunity to those men who were obliged to come a long distance—and there are many such in this district—to arrive at the opening of the meeting by leaving their homes early on that same day and, likewise, give them an opportunity to reach home the next day and, yet, stay for the end of the session.

Dr. Barton stated that he had had an invitation from Dr. Stanton to hold the meeting in Schenectady this year. That proposal was received with approval by all present and it was recommended that Dr. Barton or the Secretary, Dr. Comstock, immediately get in touch with Dr. Woodall, President of the Schenectady County Society, and have the invitation extended formally by that Society. The date selected is October 11th and 12th, the meeting to begin at noon on the 11th and close at noon on the 12th. Suggestions for the program included a series of clinics at the several hospitals and the General Electric Company on Tuesday afternoon, with a banquet and some entertainment in the evening, and on Wednesday morning a program of scientific papers, at which Dr. Wilson, orthopedist of Boston, and representatives of the X-Ray Department of the General Electric, would be invited to read papers.

Dr. Farmer spoke in appreciation of the extensive post-graduate work that has already been done in this district and expressed the hope that there would be much more in the future. He discussed at length with Dr. Reynolds the courses of lectures that have been given in St. Lawrence county and the valuable points they have learned through their experience.

It was agreed that short papers on post-graduate courses, periodic examination and any other activity peculiar to the district, should be included in the program.

When it was agreed that the annual meeting this year should be held in Schenectady, there was also expressed unanimous approval of accepting an informal invitation extended by Dr. Reynolds, to consider holding the annual meeting of 1928 in St. Lawrence county. And if such invitation is formally extended, it was agreed that the meeting should be held just before or about the 15th of September, in order that there might be more certainty of having delightful weather.

FIFTH DISTRICT BRANCH

The Executive Committee of the Fifth District Branch met in Hotel Syracuse on Thursday evening, June 2, 1927. The meeting began with a dinner. The following were present: Dr. Charles Post, President; Dr. Page E. Thornhill, 1st Vice-President; Dr. A. B. Santry, 2nd Vice-President; Dr. W. J. McNerney, Secretary; Dr. Finley, President of Madison County Society; Dr. Olin, President of Jefferson County Society; Dr. Evans, President of Oneida County Society; Drs. Farmer and Lawrence.

It was decided to hold the next annual meeting in Syracuse on Thursday, October 13th, and the Onondaga County Society will be the host. The character of program was discussed, and while only a few names were mentioned as prospective persons to be invited to read papers, a list of subjects that would be most interesting was prepared as follows:

Periodic health examinations.
Standards of pre-natal care.
Dermatology.
Industrial medicine.
Kidney function.

It was also agreed that at least two short papers—one on post-graduate education and another on public relations—should be prepared by local men.

There followed considerable discussion of the manner of conducting the courses in post-graduate instruction, in which Dr. Farmer took an active part with representatives of the counties where courses have been held.

There was also considerable discussion of the function of a Public Relations Committee, and the need for such committee was strongly emphasized by those present who are Presidents of County Societies.

SIXTH DISTRICT BRANCH

At the call of President Fish, the following members of the Executive Committee and Presidents of component County Societies, met in Ithaca on Wednesday, May 25, 1927:

Dr. W. G. Fish, President; Dr. LaRue Colegrove, 1st Vice-President; Dr. H. B. Marvin, Secretary; Dr. L. P. Larkin, President of Tompkins County Society; Dr. A. A. Bailey, Secretary of Cortland County Society; Dr. B. A. Hall, President of Chenango County Society; Dr. W. J. Farrell, President of Broome County Society; Dr. T. J. Burke, President of Chemung County Society; Dr. W. A. Moulton, Secretary of Tioga County Society; Dr. McMahon, Broome County Society; representing the Endicott-Johnson Company; Drs. Booth and Howland from Chemung County Society, and Dr. Lawrence.

The meeting began with a luncheon at the Hotel Ithaca. It was unanimously decided that the next annual meeting of the Branch should be held on Tuesday, September 27th. After much consideration was had upon two invitations, extended by delegations from Broome and Chemung counties, it was finally decided to accept Broome County's invitation. Final preparation of the program was left to the President and the local committee on arangements that may be appointed by Broome County, with the understanding that the meeting would probably be held in Johnson City, and that a portion of the program would be devoted to a study of the medical work of the Endicott-Johnson Shoe Company. In addition, it was suggested that Dr. Britt would be asked to assist in providing a man to read a paper and give a demonstration of periodic health examinations, and that the committee should endeavor to secure at least two outstanding men in their particular lines, preferably medicine or surgery.

In discussing the matter of membership of the County Societies, Dr. Farrell, President of the Broome County Society, stated that they had increased the attendance at their society meetings very materially by appointing a committee on membership and dividing the total membership of the society between these men asking each member of the committee either to call in person upon members allocated to him, or call them upon the telephone on the day of, or the day before each meeting of the society. It was suggested—and the suggestion was accepted by Dr. Fish—that he should make a survey of the County Societies, investigating the methods they are pursuing for increasing their membership and also ascertaining about how many physicians in the district are not members of their respective County Societies, and report his findings at the annual meeting.

In discussing the matter of insurance, it developed that there is some misunderstanding among the physicians as to the advantages to be derived from carrying insurance under our group plan. It would seem wise, in addition to the valuable articles appearing in the JOURNAL, to have someone thoroughly familiar with our plan of insurance, present the matter before the various County Societies at some one of their regular meetings.

The organization of Committees on Public Relations was heartily approved, and the Presidents of the County Societies asked for detailed information as to what the duties of such committees should be. It was suggested that an outline of the duties might be prepared by the standing

Committee on Public Relations and later submitted to the various County Societies.

Enthusiastic reports were received as to the progress of immunization against diphtheria.

Dr. Lawrence reported for Dr. Farmer, who was unavoidably prevented from attending the meeting, that he was eager that the various County Societies should avail themselves of the opportunity of having lectures on medical or surgical subjects and ask that they make a selection of subject and get in touch with Dr. Farmer at their earliest convenience.

SEVENTH DISTRICT BRANCH

The Executive Committee and Presidents of the component County Societies of the Seventh District Branch met in Geneva on Tuesday evening, May 24, 1927, at the call of the President, Dr. Lytle. There were present in addition to Dr. Lytle: Dr. Collier, 1st Vice-President; Dr. Armstrong, 2nd Vice-President; Dr. Lichty, Secretary; Dr. Wentworth, Treasurer; Dr. Bates, President of Cayuga County Society; Dr. Paciulli, President of Yates County Society; Dr. Gregg, President of Ontario County Society; Dr. Green, Secretary of Cayuga County Society; Dr. Britt, chairman of the Committee on Medical Economics, and Dr. Lawrence.

After some discussion, it was decided that the next annual meeting of the District Branch should be held either in Geneva or Clifton Springs, and the final selection of the place was left to the President. September 29th was chosen as the tentative date. A number of prominent men were named to be invited to read papers, and the President and Secretary were authorized to communicate with these in the order they were selected, with the idea of having at least two such men from a distance for the program. At Dr. Britt's suggestion it was also decided to have a man very widely known as a teacher in periodic health examination methods, read a paper and demonstrate the manner of making such examination and recording them.

In Dr. Farmer's absence, Dr. Lawrence called attention to the splendid work that is being done in post-graduate education, and urged that the County Societies avail themselves more freely of the offer made by the State Society through its committee. Some other points referring to the activities of the District were discussed. As to membership of the County Societies, it developed that the physicians practicing in these counties are practically all members of the County Societies. Few of the counties have Public Health Committees and practically none of these are active. Plans were discussed for increasing their activity and for the appointment of committees in the counties where they do not already exist. The function of a Public Relations Committee was discussed and all seemed immediately to appreciate the need of such committee and agreed that at the first opportunity they would urge its selection in their own Societies.

There was a very enthusiastic report of the progress of the diphtheria immunization work in the various counties, except from one district, in which there is no opposition on the part of any of the physicians, but inactivity seems to be due entirely to lack of leadership.

EIGHTH DISTRICT BRANCH

At the call of the Vice-President, Dr. Thomas J. Walsh—in the absence of President Cottis, who is in Europe—the Executive Committee of the Eighth District Branch and certain of the Presidents of the component County Societies, met in Buffalo on Thursday, May 26, 1927. The meeting began with a dinner at the University Alumni Club. The following persons were present: Dr. Walsh, 1st Vice-President; Dr. W. Warren Britt, Secretary and President of Erie County Society; Dr. R. H. Wilcox, Assistant Secretary; Dr. F. H. Van Orsdale, Treasurer; Dr. Leighton, President of Niagara County Society; Dr. Cooley, President of Allegany County Society; Dr. DeCeu, Past-President of Erie County Society; Dr. Trick, President-elect of the State Society; Dr. Farmer and Dr. Lawrence.

The first order of business being to decide upon the time and place of the next annual meeting, it was unanimously decided to hold it on October 6th at Glen Ayr. If, however, it is found impossible to hold the meeting there, the second choice of the committee would be Warsaw, and third choice, Batavia. Suggestions for the program include an invitation to Dr. Thayer, President-elect of the American Medical Association; Dr. Heyd, to give a paper on "Draining of the Gall Bladder," and Dr. Crampton to read a paper upon and demonstrate periodic health examinations. Dr. Farmer urged that the County Societies arrange at their earliest convenience for post-graduate courses, and also desired that some reference be made to post-graduate education in the program of the annual meeting.

In discussing the membership of the County Societies, only three counties being represented, it was found that Erie had been conducting some vigorous membership campaigns, but that there are still many men in Niagara and Allegany counties who do not hold membership in the County Societies. It also developed that many of the County Societies do not have Public Health Committees, and Dr. Farmer urged that they immediately organize such committees. It was later decided that in some of the smaller counties the two committees of Public Health and Public Relations might be combined, with the understanding, of course, that the functions of the two committees, while closely related, are not at all identical. There was some confusion and lack of information shown among those present with regard to the group insurance plan, reenforcing the observation made at the Sixth District Branch meeting of the need of somebody conversant with our scheme presenting the matter to the County Societies in person.

LAKE KEUKA MEDICAL AND SURGICAL ASSOCIATION

The twenty-eighth annual meeting of the Lake Keuka Medical and Surgical Association will be held Thursday and Friday, July 14 and 15 at Keuka Hotel, on Lake Keuka, one of the Finger Lakes in central New York State.

The meeting will open promptly at 10 a. m. Thursday, July 14th in the big open dance pavilion at Keuka Hotel, and will continue until Friday afternoon July 15th. It is expected that between two and three hundred physicians from all over the state will be in attendance.

Dr. A. H. Aaron of Buffalo is the President, Dr. Albert M. Crance, of Geneva, is Vice-President, and Dr. John A. Hatch of Penn Yan is Secretary and Treasurer.

Extensive plans are well under way by the officers and directors to make this meeting one of the most interesting in the history of the association. Besides the scientific program which will be fully announced at a later date, the committee are arranging some splendid speed boat races to be held each day of the meeting. There will be several fifty-mile an hour boats on the lake this year to compete for the challenge cup offered by the Lake Keuka Medical and Surgical Association, as well as other challenge cups offered by the local Yacht Club.

The association is almost twenty-seven years old. It was organized on August 14, 1900 by the Steuben County Medical Society at its summer meeting which was held at Gibson Hotel on Lake Keuka. The idea spread to other counties and the Association now includes twenty-two counties in Central and Western New York.

John A. Hatch, M.D.,
Secretary and Treasurer,
Penn Yan, N. Y.

SCHOHARIE COUNTY

The semi-annual meeting of the Schoharie County Medical Society was held in the Parrott House, Schoharie, N. Y., on Tuesday, May 17, 1927.

Officers nominated for 1928: For President, M. Bruce; Vice-President, C. L. Olendorf; Treasurer, L. R. Becker; Secretary, H. L. Odell; Censor, W. T. Rivenburgh.

The Committee on By-Laws gave a preliminary report.

C. F. Wharton and J. F. Duell made application for membership. Their application was favorably reported by the Comitia Minora and they were duly elected.

Dr. R. J. Wharton, Pediatrist, of Johnson City, N. Y., read a paper on "Some Practical Points for the General Practitioner in the Diagnosis and Treatment of Disease in Infancy and Childhood."

Dr. Robert E. Plunkett, Director of the Division of Tuberculosis of the New York State Department of Health, gave a talk on "The Family Physician and Tuberculosis," in which he emphasised the necessity of early diagnosis, the five positive diagnostic points, the careful extended instruction for each patient and the frequent examination of each contact. Dr. Huntington Williams, Distrist State Health Officer, opened the discussion of Dr. Plunkett's paper and his remarks were followed by an animated general discussion.

We were greatly honored by having present with us the President of the Medical Society of the state of New York, Dr. James E. Sadlier, who spoke very entertainingly on the activities of the State Society and expressed the hope of a closer relationship between the several health agencies of our State.

Dr. Nelson Borst, of Poughkeepsie, a native of this county, gave us an interesting talk.

Withal the meeting was the best attended, all but three members being present, and the most enthusiastic of any we have had for several years. H. L. Odell, *Secretary*.

QUEENS COUNTY MEDICAL SOCIETY

The regular meeting of the Medical Society of the County of Queens was held at the Jamaica Lodge, I. O. O. F., No. 247, 159-29 90th Avenue, on April 26th, 1927, President Joseph S. Thomas in the chair.

The minutes of the March meeting, as published in the *Bulletin,* were approved.

The following nine candidates were elected to membership: Guido Boccardi, M. D., 3541 10th Street, Long Island City; Robert R. Eckert, M.D., 8902 Sutphin Boulevard, Jamaica, L. I.; Dana Fletcher Downing, M.D., 132-02 97th Avenue, Richmond Hill, L. I.; John Halliday Gillespie, M.D., 3256 82nd Street, Jackson Heights, L. I.; Otto T. Hofmeister, M.D., 113-18 Sutphin Boulevard, Jamaica, L. I.; Milton H. Morris, M.D., 1930 Broadway, Far Rockaway, L. I.; Gerald Edwin Pauley, M.D., 218th St. and Jamaica Avenue, Queens Village, L. I.; John A. Renwick, M.D., 1502 Mott Street, Far Rockaway, L. I.; David Rothstein, M.D., 3756 74th Street, Jackson Heights, L. I.

Dr. A. G. Whelan, Chairman, rendered a brief report of the work of the Membership Committee.

The President announced the resignation of Dr. W. J. Lavelle, as chairman of the Committee on Public Health, and the appointment of Dr. James G. Howard as his successor to the Chairmanship of that Committee. He stressed the importance of the work of this Committee to the Society and to the public.

Dr. D. E. McMahon, Chairman, reported for the Legislative Committee that the Governor to his credit had vetoed the Osteopath and Optometrist bills.

The President announced that no applications had been received for physicians to the Camps of the Boy Scouts during the summer and emphasized the opportunity and advantage to physicians who could render this service.

The following scientific program was presented:

Paper—The selection of gastric and duodenal ulcer gases for different types of treatment, lantern slide illustrations. By Dudley Roberts, M.D.

Dr. Roberts discussed the subject of peptic ulcer in general as a basis for certain comments on the selection of cases for various plans of treatment. He called attention to the fact that we knew little of the causation of ulcer except that the stomach and to a lesser degree the cap tended to digest itself when the blood supply of an area was cut off. The role of infection was more suggested by the results following removal of infection above than by anything in the way of experimental proof. Attention was directed to the various types of ulcer as shown by the roentgen study and the rule laid down that any ulcer of the stomach should show a comparatively quick response to medical treatment in the follow-up roentgen study. An increase in the size of the ulcer or the area of induration after a month or six weeks of medical treatment was a definite indication of surgical treatment. Failure to diminish in size in two or three months was to be looked upon as a definite indication that medical treatment would fall. Symptoms could not be depended upon at any time as a criterion of cure as remission of symptoms over long periods was the rule in gastric as well as duodenal ulcers. In general it was held that the less the area of induration the more likely was medical cure to succeed and vice versa. The fact that rather large indurated ulcers healed spontaneously or under medical treatment was well established by successive roentgen series.

The statement was made that the bed treatment of ulcer was largely for the purpose of controlling the patient who otherwise would not adhere to a frequent feeding and alkali routine. Surgery was frequently to be resorted to because of the difficulty of carrying out adequate medical treatment over a long period.

Paper—Symptoms and treatment of perforated duodenal ulcer, with review of cases. By Denis E. McMahon, M.D.

Discussion by: Drs. C. B. Story, W. J. Lavelle, D. E. McMahon, A. L. Voltz, W. H. Barber, I S. Startz, J. S. Thomas.

Closed by Dr. Roberts and Dr. McMahon.

Dr. John H. Barry addressed the meeting on the St. John's Hospital Campaign.

A motion of thanks was made and passed to the readers of the paper.

E. E. Smith, M.D.,
Secretary.

THE DAILY PRESS

THE NEWSPAPER IN PUBLIC HEALTH

Physicians recognize the power of the printed periodical in molding public opinion, and demonstrate their belief by supporting the official organs of their medical societies, and by supplying health news to the newspapers. An unintentional side light on the importance of the daily press in public health is contained in the following extract from an address of Frank E. Tripp, Manager of the Gannett newspapers, before the Rochester Ad. Club, as reported in the New York *Herald Tribune* for June 10:

" 'I never heard of a citizen phoning the bill posters to hurry into his neighborhood with a billboard,' he concluded. 'I never heard of anybody seeking the removal of a postman because he failed to leave mail advertising literature. But let one newsboy miss a customer. From the most remote corner of the city comes a call, "I didn't get my paper."

" 'Out shoots a trouble boy on a motorcycle, delivering what? Delivering the most animate and perishable or all manufactured products, more valuable to peace and public safety than the Police Department, more necessary to business than the Chamber of Commerce, the poor man's university, the stabilizer of civilization, the guardian of public health—that abused, accused and damned necessity—the daily newspaper.' "

It will be noted that Mr. Tripp says that one of the great functions of a newspaper in modern civilization is that of guarding the public health. He reveals the fact that the editors of newspapers depend on physicians and leaders of medical societies for medical news and for advice in matters of public health. Physicians do not have to ask for space for medical items. The editors will send for the news, and will put it in readable shape for the doctors. The editors will also show their gratitude by printing the doctor's name more prominently than some of his professional brethren think proper. But the editor must give the source of his information, and the standard way of doing it is to quote information in an interview. The physicians of New York State now make very few criticisms of those doctors who supply educational articles for the newspapers. On the other hand, physicians generally feel that the doctor who has a gift for writing educational articles should exercise it. Physicians are rather proud of one of their number who can write interesting items in the name of the Committee on Public Health of the County Medical Society.

The doctor of whom physicians are suspicious is the one who is outside the County Medical Society, and yet gets his name in the paper at every opportunity.

SNAKE SERUM

There would seem to be but little call for "Serum for the Treatment of Snake Bites," by Raymond L. Ditmars, Curator of Reptiles in the New York Zoological Park (The Bronx Zoo), who is quoted in the New York *Herald Tribune* of June 20, as saying:

" 'Some persons feel all this talk of snake bites is far removed and even unreal. The fact is we have a call for serum constantly, and have in the last few weeks saved the lives of persons up state and in Pennsylvania by rushing serum to them.' "

The article was a news note to the effect that Dr. Ditmars was starting on a trip to Africa where he expected to visit an Algerian snake charmer who is immune to cobra venom. The article says further, in describing the potency of the immunity that may be acquired:

"Dr. Ditmars revealed that at least one American, Col. M. L. Crimmins, U. S. A. (retired), has immunized himself against rattlesnake bites. This has been done so successfully that he has used his own blood as a serum when other persons in Texas were bitten and the emergency supply of regular serum had run out. The remedy was effective and scientists are studying the circumstances closely."

It is well for doctors to know that they can obtain a serum against snake bite from the New York Zoological Park in the Bronx, telephone Fordham 5560. The newspapers frequently carry spectacular descriptions of wild rides in autos and airplanes in order to rush a supply of the serum to bitten patients; and the story is usually one of success. See this Journal, August, 15, 1926, page 729, and December 15, page 1053.

PRESCRIBING ALCOHOL

The New York *Times* of June 2 comments on its Editorial Page on some inconsistencies of Tennessee and Indiana in prescribing alcohol for the Governors while denying it to other citizens. The editorial says:

"Just now in Tennessee it appears that the physician in attendance upon Governor Peay, whose life was despaired of last February, pulled his patient through with ample doses of whisky. It was against the law, but when this fact was brought to the notice of the doctor, he coolly said that he 'didn't care' about that. What he was intent upon was saving the Governor's life, which he thinks he did.

"Tenderness for a Governor is shown in Indiana by a proposal in the Legislature to relax the stringent Prohibition law of that State, so that a physician may give whisky to the Chief Executive, if it is thought desirable. No one apparently raises the cry that this would be class legislation of a grossly unfair kind.

"But are Governors such highly privileged beings? Is it not the proud boast of Americans that they are all sovereigns? What is good for a Governor is, on our theory of democracy, none too good for a garbage man. Let this fundamental principle be maintained, even if it carries with it the revolutionary notion that a doctor knows more about medicine than a member of Congress."

THE PERILS OF BEAUTY SEEKING

The New York *Times* of June 6 has a readable editorial comment on the danger of beauty seeking, and says:

"In the pursuit of beauty, ladies are valiant beyond all precedent. Frail creatures who tremble at the approach of a dentist will submit without the flutter of an eyelash to two hours in the clutch of a permanent wave machine. Doctors may warn them that cosmetics produced by wildcat companies are a peril, but they bravely face the risk. At the recent meeting of the New York State Medical Society the doctors were told that the widespread seeking for artificial beauty is more than a vogue and 'must be dealt with as a permanent matter.' It was urged that rouges, lipsticks and hair dyes should come under the provisions of the Federal Food and Drugs act. London has had difficulties about the use of cheap cosmetics which prove poisonous.

"The feeling that 'there ought to be a law against it,' in the matter of suffering for beauty's sake, has actually been carried into action in French Africa. There dark-skinned beauties indulged in lip-stretching, nose-piercing and teeth-filing. The French Government long frowned on such activities, but now it has set a penalty of five to ten years in jail for those who carry beautification to the point of mutilation."

THE COST OF LIVING

Physicians are vitally interested in the cost of living, for doctor's bills are about the last to be paid. High costs of living affect the medical profession sooner than almost any other group. The physician gets his full share of the benefits of the present industrial activity, and is now enjoying financial prosperity to a greater degree than he ever enjoyed before.

The cost of the necessities of life are far higher than they were before the World War, but the purchasing power of a day's work has increased still faster. This fact is brought out by the following item in the New York *Times* of May 31:

"While prices have remained on a comparatively high level, the family income goes about one-third further than it did at the beginning of the war before prices began to rise, according to the National Conference Board, 247 Park Avenue, in a statement yesterday.

"The purchasing value of the dollar as measured by living costs for the American wage earner and other persons of moderate means stands today higher than it was during the last two years, the board asserted, as the dollar is now worth, on the basis of present living costs, 61.1 cents as compared with the pre-war 1914 dollar. It was the lowest in July, 1920, when it stood at 48.9 cents.

"'The purchasing power of the dollar,' the statement says, 'has been thus enhanced by the steady decline in average living costs throughout 1925 and 1926, which last April, however, were still 63.7 per cent. higher than they had been in 1914, just before the war. But the average weekly earnings of industrial workers, owing to higher wage rates and more steady employment, at present are more than twice as high as they were in 1914, so that, in spite of the higher living cost, the wage earner on the average draws weekly pay of about 34 per cent, greater purchasing power than he did just before the war.'"

BOOK REVIEWS

Clinical Surgical Diagnosis for Students and Practitioners. By F. deQuervain. Translated by J. Snowman, M.D. Fourth English Edition. Octavo of 937 pages, with 750 illustrations and 7 plates. New York, William Wood and Company, 1926. Cloth, $14.00.

This is the fourth English edition of a volume that is well known in this country. The translation by Dr. Snowman is excellent, retaining for the English reader Professor deQuervain's practical expression.

There are over 900 pages, with 750 illustrations, and seven plates covering the subject of surgical clinical diagnosis. The basis for the entire work is the actual clinical experience of Professor deQuervain whose clinic has long been a shrine for those who have been fortunate enough to visit the University of Berne.

The changes in this edition as compared to the previous editions are chiefly in the diagnosis of surgical conditions in the brain, the kidney, and the thyroid gland.

The author who has long plead for the clinical study of the patient independent of the laboratory, gives us in this volume a stimulus at this time when we are so prone to overlook our clinical signs and accept the laboratory as the ruling factor in our diagnosis.

There is perhaps at this time no other one volume on this subject which gives the student of surgery as much practical information. Herbert T. Wikle.

Our Doctors. A Novel of Today. By Maurice Duplay. 12mo of 279 pages. New York and London, Harper & Bros., 1926. Cloth, $2.00.

In the book there is combined not only an excellent fiction story, but a splendid delineation of a strong man's character and the influence of personal suffering on this character; and in addition a remarkable, though possibly somewhat exaggerated, portrayal of various types of practitioners, true not only in France but in any country. As to the medical facts and knowledge, especially pertaining to cancer research, one cannot but comment on their accuracy, for M. Duplay is the son of a physician and apparently well acquainted with the medical lore and history. "Our Doctors" is a book very ably translated and well worth reading. W. H. Rachlin.

The Practice of Medicine. By A. A. Stevens, A.M., M.D. 2nd Edition, entirely reset. Octavo of 1,174 pages. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, $7.50.

The second edition of this standard work on "The Practice of Medicine" contains the present views upon the subject. Because of the advances made in medicine since the publication of the first edition, the entire volume has been reset and much new subject matter introduced. The work is complete, thorough, accurate, well-written, ably presented, covers the wide field of internal medicine, and can be used profitably not only by medical students but by all who care for the sick.

The typographical work upon this volume of twelve hundred pages upholds the reputation of the publishers.
Henry M. Moses.

Diseases of Women. By Harry Sturgeon Crossen, M.D. 6th Edition, revised and enlarged. Quarto of 1,005 pages, with 934 illustrations, including one colored plate. St. Louis, The C. V. Mosby Company, 1926. Cloth, $11.00.

A review of this sixth edition is of value, not so much or the amount of new material, as that in fact must be imited, but for the very excellency of this book.

A logical arrangement of the material, clear cut verbal pictures, excellent illustrations, and conservative judgment makes this book one of the most valued to the Gynecologist as well as to the General Practitioner.
G. W. P.

Practical Surgery of the Joseph Price Hospital. By James William Kennedy, M.D. Octavo of 861 pages, illustrated. Philadelphia, F. A. Davis Company, 1926. Cloth, $10.00.

Doctor Kennedy has made out of his love for his old master a monumental book in which are discussed, with much prolixity, certain procedures and surgical principles of Joseph Price. Such are vaginal hysterectomy with clamps, now praised as the proper treatment for cancer of the cervix.

Appendicitis in which, among other things, Fowler's position is figured and discussed in complete ignorance of its theory, nature or practice.

Ectopic gestation, cervical and perineal repair, cystocele, tubal and ovarian infection.

Puerperal or wound infection.

Tubercular peritonitis. A chapter on drainage in abdominal surgery.

The Surgery of the gall bladder.

Abdominal hysterectomy.

The use of the Murphy button.

A horrible chapter on the surgery of breast tumors and others.

The book is to be considered a contribution to the history of surgery in the making of which the author and his master had no small part.

It is a fortunate fact that surgical education has advanced so rapidly, however, that no better propaganda for post graduate study could be accorded than is contained within its pages. J. E. J.

Mind and Its Disorders. A Text-Book for Students and Practitioners of Medicine. By W. H. B. Stoddard, M.D. 5th Edition. Octavo of 593 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, $7.50.

The book is divided into three parts: Part I, Normal Psychology; Part II, Psychology of the Insane; Part III, Mental Diseases.

In Part I is covered briefly the field of normal psychology, and its importance as a help and stepping stone to the study of psychotic processes is emphasized.

Part II is devoted to psychology of the insane and discusses the various abnormal psychological processes and paves the way to a better understanding of psychotic syndromes. Attention is drawn to certain disorders of perception, namely, the agnosias (aphasic phenomena), hallucinations and illusions. Further on, other aphasic features are touched upon such as apraxia and disorders of speech and writing. Under the heading of erroneous judgment various delusions with some psychological explanations are discussed. Finally, psychoanalytic methods are dwelt upon briefly and should serve to prepare the student for a better interpretation of the section on mental diseases to follow.

In Part III mental diseases are divided as follows: neurosis, the psychoneuroses, the psychoses, toxic insanity, organic insanities, idiocy and imbecility. While the terminology is somewhat different from the New York State Classification it seems to serve the same purpose.

The book is interesting and instructive. It should be helpful as a text for the student as well as a handy reference work for the practitioner. A. E. Soper.

CLINICS, HOSPITALS AND HEALTH CENTERS. By MICHAEL M. DAVIS, Ph.D. Octavo of 546 pages. New York and London, Harper and Brothers, 1927. Cloth, $5.00.

The author has had a splendid opportunity to make this extensive study in collaboration with the Committee on Dispensary Development.

The book will prove of value to all interested in the administration of clinics, hospitals and health centers.

The work is based on an unusually wide study of actual conditions and contains much practical and helpful information.

The publishers believe this to be the first book to deal intensively with this whole field and call attention to its value as a reference work. A. E.

REPORTS OF THE ST. ANDREWS (JAMES MACKENZIE) INSTITUTE FOR CLINICAL RESEARCH, ST. ANDREWS, FIFE. Volume 3. Edited by DAVID WATERSTON, M.D. Octavo of 227 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $3.00. (Oxford Medical Publications.)

These reports contain the results of the investigations of the several workers connected with this Institute founded by Mackenzie with the object of studying the earliest symptoms of disease, as well as the conditions which predispose to its occurrence, with a view to its cure and prevention. A brief resumé and appreciation of the life and work of Mackenzie is given. The importance of the capillary system in its relation to clinical symptoms is clearly reviewed by Bryson who feels that this part of the circulatory system has been neglected. Many studies are presented of epidemics, more or less severe, in school children with the object of preventing these illnesses. A paper upon the radiography of duodenal ulcer presents instructive pictures. This volume shows the careful work being performed at this Institute. HENRY M. MOSES.

THE TREATMENT OF CHRONIC DEAFNESS BY THE ELECTROPHONOÏDE METHOD OF ZÜNDBRUGUET. By GEORGE C. CATHCART, M.A., M.D. 12mo of 88 pages. London and New York, Oxford University Press, 1926. Cloth, $1.35. (Oxford Medical Publications.)

This small volume deals with the problem of deafness and tinnitus, the study and treatment of which has been very discouraging to the otologist. The author is very enthusiastic abouts its results, both from practice and personal experience in his own case of deafness. The monograph deals with the problems, causation, prevention, and treatment of deafness. The presence of adenoid tissue, in the author's opinion, is the starting point of progressive deafness that we see in adult life.

The electrophonoïde method is a re-education method, various forms of which have been used for many years, beginning with the method of Itard and reaching its acme of development with Urbantschitsch of Vienna. The electrophonïde of Zündburguet reproduces the sound vibrations of the whole gamut of the human voice, and thus gives the requisite physiologic stimulus to the ear. The sounds produced resemble those of the human voice extending over five octaves with vibrations between 80 and 3500. The quality of each sound can be varied as well as its intensity, the sounds being carried to the ear by telephone receivers. The method of treatment is given in detail, with an excellent description of its uses and possibilities. There is also a table setting forth the author's results which vary between 50% and 80% improvement in cases of nerve and middle ear deafness and in otosclerosis. A wider use and treatment by this method is advisable in order to prove the claims of the author. BENJAMIN H. ABRAHAMS.

INFANT MORTALITY AND ITS CAUSES. With an Appendix on the Trend of Maternal Mortality Rates in the United States. By ROBERT MORSE WOODBURY, Ph.D. Octavo of 204 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $3.50.

This very complete inquiry into the cause of infant mortality is a detailed compilation of the material collected by the United States Children's Bureau, and Bureau of the Census. The causes are disentangled and carefully analyzed in a very interesting way. Reasons for the infant mortality of New Zealand, the lowest in the world, are carefully worked out, and the conclusions reached by the author are of great interest and are apparenty unassailable. A valuable book.
C. A. G.

TRANSFUSION OF BLOOD. By HENRY M. FEINBLATT, M.D. Octavo of 137 pages, illustrated. New York, The Macmillan Company, 1926. Cloth, $3.00.

Dr. H. M. Feinblatt's monograph on the transfusion of blood is a well written work on a timely subject. It contains all the essential facts necessary to a thorough understanding of the procedure, its contraindications and dangers. Theoretical considerations are sidestepped, the greater part of the volume being devoted to the practical essentials. A very extensive literature is incorporated in this volume.

To those interested in the subject of transfusion, this book should be of great value. MAX LEDERER.

CHRONIC RHEUMATIC DISEASES. Their Diagnosis and Treatment. By F. G. THOMSON, M.A., M.D., and R. G. GORDON, M.D. Octavo of 202 pages. London and New York, Oxford University Press, 1926. Cloth, $2.75. (Oxford Medical Publications.)

The authors admit the inexactness of the term "rheumatism" but believe that the word has much to recommend it as the conditions discussed are allied and groups such as infectious arthritis, osteo-arthritis, fibrositis and gout merge into each other. They believe that a scientific classification is not yet possible.

The book is divided into three parts, the first devoted to a discussion of the etiology, clinical types, differential diagnosis and of climacteric arthritis. The second part describes some diagnostic difficulties and the third, various methods of treatment.

The etiological factors discussed are personal idiosyncrasy of unknown nature, cold and damp, undue fatigue, focal infection, strain and arteriosclerotic changes in the articular vessels.

Fibrositis or muscular rheumatism is defined as an inflammatory reaction of the fibrous supporting tissue of the body to extraneous poisons which may be bacterial or toxic. A poison circulating in the blood is said to be present derived from the lower digestive tract or from some focus of infection. Exposure to strain or to chilling are believed to be the chief contributing causes. In the chronic cases nodules and fibrous bands may be felt which are the residual scar tissue resulting from the inflammatory reaction.

Treatment is fully discussed and the book presents a satisfactory review of the subjects treated.
W. E. MCCOLLOM.

LOCAL IMMUNIZATION, SPECIFIC DRESSINGS BY PROFESSOR A. BESREDKA, Pasteur Institute, Paris. Edited and translated from the French by DR. HARRY PLOTZ, 216 pages, The Williams and Wilkins Company, Baltimore, Md., 1927, cloth, $3.50.

This small volume presents an interesting and fundamentally new point of view in the problem of immunity—namely, the idea of local immunity.

Professor Besredka's conception is based upon long years of research and broad experience. In support of the viewpoint presented a large number of facts, both clinical and laboratory are cited. The book is most interesting and provides food for much thought.
JOSEPH C. REGAN.

SELF-CARE FOR THE DIABETIC. For the Use of Diabetic Patients. By J. J. CONYBEARE, M.C., M.D., 12mo of 70 pages. London and New York, Oxford University Press, 1926. Cloth, $1.15. (Oxford Medical Publications.)

This is a small book which covers the usual subjects of importance to the diabetic patient. The part played by food in the body, a general description of diabetes, the usual diets, urinary tests and use of insulin are some of the subjects treated.

A useful feature of the book is a list of menus for the different meals offering a variety of foods of equal caloric value and another is a list of extras of "no food value." W. E. MCCOLLOM.

SHELL SHOCK AND ITS AFTERMATH. By NORMAN FENTON, Ph.D. With an Introduction by THOMAS W. SALMON, M.D. Octavo of 173 pages. St. Louis, The C. V. Mosby Company, 1926. Cloth, $3.00.

A careful follow-up study of the soldiers shell-shocked during the War is recorded. As the psychoneuroses and neuroses of military life are essentially the same as these conditions among civilians, differing mainly in degree, this book should be of interest to students of psychology and psychiatry. FREDERIC DAMRAU.

STUDIES IN PSYCHOLOGY AND PSYCHIATRY. From the Catholic University of America. Edited by EDWARD A. PACE. Vol. I, No. 1. The psychology of Reasoning. By MIRIAM FRANCES DUNN. Octavo of 141 pages. Vol. I, No. 2. Diastatic Activity of the Blood Serum in Mental Disorders. By JOHN WILLIAM RAUTH. Octavo of 32 pages. Baltimore, The Williams and Wilkins Company, June, 1926. Price per volume, $5.00.

Numbers 1 and 2 of the Studies in Psychology and Psychiatry include monographs covering the subjects of the psychology of reasoning and the diastatic activity of the blood serum in mental disorders. These subjects are well handled and should prove interesting reading to all who are in search of information on those topics.

FREDERIC DAMRAU.

THE TREATMENT OF THE ACUTE ABDOMEN. Operative and Post-Operative. By ZACHARY COPE, B.A., M.D. Octavo of 238 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $3.50. (Oxford Medical Publications.)

"This book," says the preface, "is a companion and complement to the Early Diagnosis of the Acute Abdomen." It does not appear to this reviewer to be a worthy fellow of that excellent little work.

The author attempts, in the first place, an impossible task—to produce in 232 pages an account of the operative surgery of the acute abdomen. In the second place he wastes space in reprinting, from instrument makers' catalogues, pictures of forceps, knives and scissors—of operative procedures scarcely less final and in diffuse and unnecessary verbiage.

In the third and last place it is full of dogmatic half-truths and of naive antiquity.

Not so good. J. E. J.

AVIATION MEDICINE. By LOUIS HOPEWELL BAUER, A.B., M.D. Published by authority of the Surgeon General. Octavo of 241 pages, with illustrations. Baltimore, Williams and Wilkins Company, 1926. Cloth, $7.50.

This book takes up, in a very comprehensive way, the medical requirements of a flier. First, the general physical requirements are considered, and then, the more important special organs such as the ear, eye, nose, throat, heart, lungs, etc.

All the special examinations that are used to test altitude, depth, perception, equilibrium, etc., are clearly described and accompanied by appropriate pictures and charts. For anyone interested in aviation and aviators, from the medical standpoint, this book is an ideal one. The fundamentals are present and in a readable manner.

KENNETH MACINNES.

THE FAITH, THE FALSITY, AND THE FAILURE OF CHRISTIAN SCIENCE. By WOODBRIDGE RILEY, Ph.D., FREDERICK W. PEABODY, LL.B., CHARLES E. HUMISTON, M.D., Sc.D. Fleming H. Revell Co., New York, 1925.

This exposé of Christian Science, neatly done in 404 pages, by three gentlemen who, possessed with facts, know how to express themselves, is recommended to physician and layman alike.

Dr. Riley writes on the Faith of Christian Science. He covers the personal sources, the problem of plagiarism, Quimby, the discoverer, the Medicine Man, the Ocultist, from mind healing to metaphysics, Alcott, the inspirer, mysticism, divine science, marriage and sex, and psycho-analysis.

Frederick W. Peabody deals with the Falsity of Christian Science. His chapter headings are: Autocracy, Autocrats, Suppression, Swindling, Lies, Death, and Cash.

Dr. Humiston concludes the book with the Failure of Christian Science. His chapters include: Christian Science—A Medical Parasite, Deceit, The "Cures" of Christian Science, The Failures of Christian Science, and Conclusion.

Recently a member of the reviewer's family "turned" to Christian Science. Patiently, we permitted frequent visits of the "practitioner" and submitted to "absent treatments," all at so much per, in real coin of the land. This entertaining and instructive and revealing volume, brought home for review, chanced into the sick one's hands. It was read from cover to cover. When we arrived home that evening, we were met with, "I wish I could sue that woman (the practitioner) for cheating me . . . to think I was so gullible as to be ensnared . . . if every one read that book (The Faith, The Falsity, The Failure of Christian Science) there would be fewer victims to be stung. In your review recommend every adult of normal intelligence to read it."

And that we earnestly do. T. S. W.

BIRTH CONTROL AND THE STATE. A Plea and a Forecast. By C. P. BLACKER, M.C., M.A., 16mo of 87 pages. New York, E. P. Dutton and Company, 1926. Cloth, $1.00.

This is one of the To-day and To-morrow Series, a series of small monographs on scientific and philosophic topics.

The author presents the chief arguments for and against birth control from the personal, social and international aspects. Due to his nativity his viewpoint is British. His fear that unless birth control is adopted there will be another world war starting with hostilities between the United States and Japan is certainly interesting although not convincing to the reviewer.

E. H. M.

WERK UND WIRKUNG—Eine Vortragsreise. Von Professor Dr. HANS MUCH. 12mo of 227 pages, illustrated Leipzig, Curt Kabitzsch, 1926. Paper, Marks 7.20. (Moderne Biologie, Heft 11).

A small volume of lectures on various interesting phases of medicine, delivered while on a tour by a scientist. The reading of this collection of lectures emphasizes the broadness of mind, the generous philosophy and the literary ability of a well known authority in the biological field. MAX LEDERER.

OUR NEIGHBORS

THE IDEALS OF THE JOURNALS OF STATE MEDICAL SOCIETIES

The question "What are the ideals and standards of the Journals of State Medical Societies?" is well discussed in the following editorial from the June issue of *Colorado Medicine*.—Editorial Note.

"A state journal is in no sense a literary competitor of national or specialized periodicals. When it ceases to be local in its sphere of interest it surrenders its first right to existence. Occasionally we are appraised of the laments of a well wishing confrere regarding the type of some of the material that is given space in *Colorado Medicine*. Our lacrimation is often quite as copious and our laments quite as loud. Our culpability, however, consists in our policy of publishing the transactions of the State Society and a few other articles submitted by society members. To do better involves certain technical difficulties inherent in the perennial problem of lifting ourselves by our own boot straps. When medicine is more uniformly practiced on the highest scale and always recorded in faultless diction, then and only then will all of our articles be above this just criticism.

"'But,' laments the lover of good literature, 'why is not the material culled and selected?' This is a pertinent query indeed, but is answered by the statement that occasionally no selection is possible. If, for example, six articles comprise a journal and only six are at hand, the selection may be ever so painful but always easy.

"'But,' continues our grief-stricken reader, 'why is such a situation permitted to arise when the Society has many members who are always able and willing to make credible literary contributions for the asking?' This is exactly what is often done with distinct value to the general average of our literary efforts. But such contributors do not represent the whole of literary thought. Our relatively silent members practice the same art, pay the same dues and are consequently entitled to the same privileges of the Society. If our columns are open only to the mature and experienced writers, where, we ask, can others make a beginning?

"'But,' wails the over-anxious stickler for scientific exactness, 'much damage is done by the publication of ambiguous and erroneous data.' To this we agree if the journal is widely and carelessly read; but, that granted, our columns are always open to a courteous refutation of error, an approved method of exchange of ideas by which medical thought is often best promoted.

"We are thoroughly in sympathy with the demand for a higher standard of excellence if it can be had without too great sacrifice of other important ideals; but after reviewing most of the state and sectional medical publi cations, we are convinced that it is more to the point that these publications reflect the thoughts and activities of the rank and file of practitioners, a round-robin, as it were, of local professional interest. For this apparently good reason space is as freely accorded the country doctor as the college professor. A generous supply of personal news notes, coun ty society proceedings and timely correspond ence is within the reach of every member and serves the purpose of *Colorado Medicine* quite as appropriately as lengthy, original articles o which there is abundance in journals of a dis tinctly different type.

"It is our hope that a much larger numbe of our members may acquire the habit of sub mitting short, original papers for publication Excellent guides are available for perfecting the art of medical writing, most notable o which are 'The Art and Practice of Medicine Writing' by George H. Simmons, and Dr. Mor ris Fishbein, and 'Suggestions to Medical Au thors' or A. M. A. Style Book. Now that many manuscripts are in the making for our nex annual meeting many of us would do well to consult such authoritative counselors. By thu producing more acceptable papers we would give less cause for grief to those lovers o literature who sit on the river shore and make only a briny contribution to the waters o Babylon."

ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION

The physicians of New York State will be interested in the annual meeting of the medical organizations of other states. The May issue of the *Journal of the Missouri State Medical Association* comments on the recent meeting of the society as follows:

"The 70th annual session of the State Medi

(*Continued on page 750*)

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Broadest Sense . . . . .

> *"Nutritional disturbances are due to a disproportion between the nature of the food and the ability of the organism to digest and assimilate."*
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(*Continued from page 748*)

cal Association passed into history at Sedalia May 5, with the record of having been one o the most successful, interesting and harmonious meetings the organization has enjoyed

"In the House of Delegates the new constitution and by-laws were adopted with fe alterations. One important change was a provision to accept new members at one-half th amount of the regular annual dues for the firs two years subsequent to graduation. Thi provision was adopted in order to permit thos societies who have been admitting such graduates at one-half the regular dues of the component society to pay only one-half of th State Association dues.

"Dr. C. A. Vosburgh, St. Louis, reporte as a special representative of President Breue on the conference held at Memphis, Tennesse April 28, with the American Red Cross to discuss the flood situation in the lower Mississippi Basin. At the time of the conference was shown that there were approximatel 175,000 homeless refugees concentrated i emergency camps. Dr. Vosburgh promised th conference, in behalf of Missouri, a quota c 250 physicians if that number were needed.

"Dr. Guy B. Mitchell, a member of the Stat Senate, called attention of the House to resolution adopted by both branches of th General Assembly creating a commission t survey the state and investigate the needs c the crippled children of Missouri, and state that such commission had been appointed. H also stated that the bill providing for hospit care and education of crippled children at th State University had been approved by Governor Baker and that the Governor had approved and released an appropriation of $35 000 to enable the University to begin the wor of providing for these children.

"The Pettis County members were indefa igable in providing entertainment for the vi itors and the preparation of facilities for con ducting the meeting, having always one c more members on hand to make every one fe at home. The entertainments were most plea ant, the reception and dance following the ad dresses of the president and guests being we attended and the call for ladies as partners fo the men visitors at the dance was over sup plied. The sporting element among the vi itors were highly entertained by the boxin match on Tuesday night and the numero special parties filled out a series of entertai ments that left no one neglected.

"The dinner to the county society secretarie was by far the most enthusiastic and the mos enjoyable of any that has ever been hel There were 52 guests including councilor presidents and secretaries of county societie and officers of the State Association. Dr. J. T

Hornback deserves great credit for having arranged for such a splendid meeting.

"The total number registered at the meetnig was 337, a few less than the number Dr. Ferguson had determined should be present, for he had made up his mind to bring up the total to 400."

SPONDYLITIS DEFORMANS

It is rather common to see a person whose back is bent forward to an extreme degree. Many of these persons walk the streets, objects of pity and the victims of every fakir who comes to town. The streets of a small Pennsylvania village were recently thronged with such cripples attracted by the offer of a free treatment by a travelling fakir who received the applicants in royal state.

The May issue of *Northwest Medicine*, the organ of the state medical societies of Oregon, Washington and Idaho, explains the conditions in an article by Dr. Paul N. Jepson of the Mayo Clinic, from which the following abstracts are taken.—Editor's Note.

"Spondylitis deformans is a chronic progressive disease of the spine, beginning with painful stiffness and terminating in complete rigidity and a variable degree of deformity. The etiology is the same as in any case of chronic infectious arthritis.

"The patient usually complains of a lame back, especially on arising in the morning. It may be stiff for some time before movement causes relaxation. As the disease progresses the pain becomes gradually more and more aggravated by bending, moving or riding.

"As a rule, the disease progresses to the dorsal spine and finally, although not always, to the cervical spine. As a portion of the spine becomes ankylosed, the pain decreases in that part. The disease need not progress in this order for there are not a few cases of primary cervical involvement.

"When the cervical spine is involved, movements of the head and neck become painful and the head may drop forward on the sternum.

"The diagnosis of spondylitis deformans should not be difficult; however, one must always bear in mind the possibility of tuberculosis, malignant disease, an old fracture or sciatica neuritis.

"There will not always be positive roentgen-ray findings, but this need not exclude spondylitis, for in many cases the disease has not progressed far enough to show bony changes by the roentgen-ray. Then, too, there is the type in which bony hypertrophy is absent.

"When the roentgen-ray findings are posi-

(*Continued on page 752—adv. xviii*)

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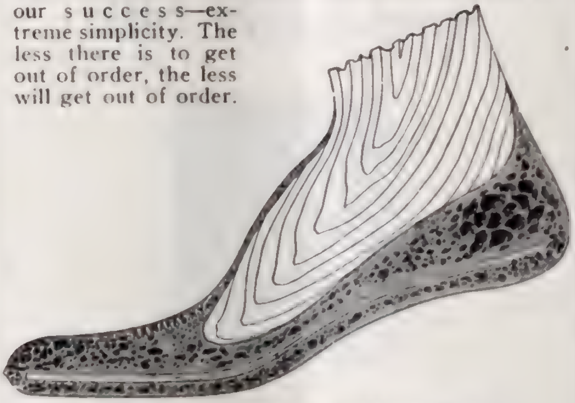

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(*Continued from page* 751)

tive, they show loss of the intervertebral disc and there is parrot-beak lipping of the edges of the vertebrae. This is almost pathognomonic of spondylitis. In many cases there is a solid deposit of bone between the vertebrae, giving them the appearance of bing soldered together. It is always well to have a lateral as well as an anteroposterior view of the spine so that fracture or destruuction of a vertebral body may be excluded.

"In the absence of positive roentgen-ray findings, one must rely pretty much on the history and on a thorough physical examination. Usually the stature is highly suggestive.

"The accepted form of treatment has not been materially changed for many years. As a rule the patient is given instruction about exercises and the application of heat, and then equipped with some type of a back brace. If there is a focus of infection, its removal is advised in the hope that thus the exciting cause will be removed. In a good many cases this form of treatment gives surprisingly good results, but there still remanis a group that apparently resists every attempt at improvement. In this type total kyphosis of the spine has usually developed and the patient when first seen is bent over and partially incapacitated. This is the type most often seen at the Mayo Clinic, and its treatment has indeed been discouraging.

"For the last year we have been carrying out a slightly different form of treatment. The patient is treated for about a week with diathermy. Intensive through-and-through treatment is required and it is important to cross-fire whenever possible. Bone offers more resistance to the passage of the high-frequency current and is very slow to heat, but it retains the heat for hours, slowly giving it up to the surrounding tissues. The minimal period of treatment is thirty minutes, but it is extended to forty-five minutes whenever possible. The size of the electrodes and the method of applying them will vary with the part of the spine involved. The length of each treatment and the position in which the patient is placed are important details. Pain is usually markedly relieved within the first three or four treatments. After this, stimulation and exercise of the muscles of the spine are begun by means of an evenly surging sinusoidal current. Very small active electrodes permit the different muscles to be picked out and exercised separately. The number of contractions should seldom be more than ten a mniute. The time of application is gradually increased not to exceed five minutes, but it is desirable to keep the daily average around three minutes. When polarity as well as exercise is desired the pulsating direct galvanic current may be substituted for the sinusoidal."

The author also describes exercises and the forcible extension or stretching of the spine by means of weights or other forms of pulling.

As for results the author states that in a series of thirty-seven cases treated at the Mayo Clinic, the results were as follows:

Thirty-nine per cent showed no improvement.

Sixteen per cent were relieved of their pains, but their deformity was not much improved.

Forty-five per cent were relieved of pains and their deformity was distinctly improved.

The treatment of cases is largely a community problem. There must be a hospital or dispensary well equipped to give the treatments, and there must be a social service and educational facilities in order to induce the patients to persist in obeying their medical advisors. These cases are striking examples of the mutual interdependence between physicians and voluntary organizations engaged in public health.

THE BLEACHING OF FLOUR

The London letter of the *Journal of the American Medical Association* of June 11, contains the following discussion of the bleaching of flour.—Editorial Note.

"Flour, after milling, changes slightly on keeping, its baking qualities improve, and its coloring matter is bleached. This natural aging is probably an oxidation process. Imported flour from America and Australia is kept sufficiently long to exhibit this aging effect.

"The higher grades, which are obtained from the hardest part of the endosperm, called the semolina, are not only harder but produce a lighter colored flour; these are known as 'white' or 'patents,' and total about 50 per cent of the flour milled; the remainder are known as 'households.' From the latter and softer flour the offal is less perfectly separated. By the use of bleaching a proportion of the 'households' can be made to simulate patents, and a 'longer range of patents' can thereby be obtained. Chlorine bleaches by combining with the coloring matter of the flour (carotin), but it also combines with other constituents of the flour. It can act on the tyrosine and tryptophan groupings of the gluten complex with injurious results. The vitamins in flour are very susceptible to traces of chlorine and may be destroyed. Nitrogen trichloride has a sim-

(Continued on page 754—ad. xx)

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(*Continued from page* 753)

ilar action but is much more reactive than chlorine, and therefore less of it is used. Benzoyl peroxide, after bleaching the coloring matter in the flour, remains as benzoic acid, and although the amount is small, it is better that flour should not contain benzoic acid. Nitrogen peroxide, like the other bleachers, oxidizes the carotin in the flour. It is less reactive with proteins and fats than chlorine; it leaves nitrites in the flour, though very little. The committee regards nitrogen peroxide less unfavorably than the other bleaching agents. The substances used as 'improvers' are principally chlorine, nitrogen trichloride, acid calcium phosphate, acid ammonium phosphate, and persulphates, besides extracts of malt and wheat germ. It is claimed that 'improvers' enhance the natural baking qualities of flour by yielding well risen loaves of good volume and symmetry, of satisfactory texture, and of even aeration.

"'Strength' is the term applied to flours possessing this character, and it depends on the qualities of the contained gluten. Some wheats are 'weak,' but the properties of the gluten can be altered by the addition of certain salts and acids. It is claimed that by the use of 'improvers' a more varied supply of wheats can be used and blended, and a flour of uniform baking quality thus maintained. It is claimed also that the 'improver' promotes the growth of yeast and so improves aeration. How improvers act is more difficult to define; one important factor is the degree of acidity. It is known, for example, that acid phosphates cause dispersed gluten to cohere, but another explanation ascribes the gluten change to oxidation.

"It should be compulsory for the manufacturers of chemical substances for use either as bleaching agents or as improvers or both to declare the nature of the ingredients of which they are composed, and that millers should be required to inform their customers whether their flour has undergone a process of chemical bleaching or improving or both, and if so, with what substances and in what proportion."

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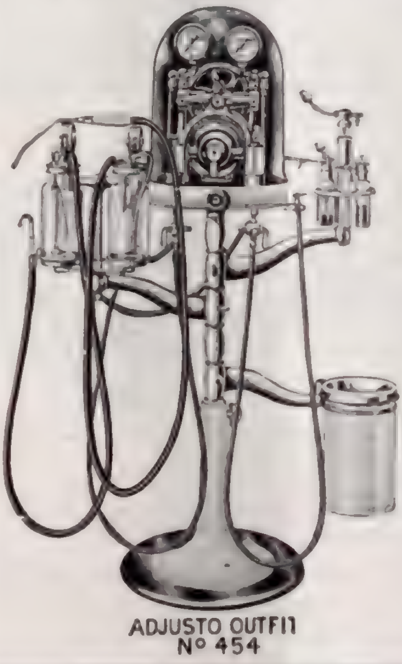

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A PERFECT MEAL

What is a perfect meal? The question is answered briefly and concretely by Dr. E. E. Cornwall in the May issue of the Long Island Medical Journal, from which the following abstract is taken.—*Editor's Note.*

"A perfect meal is one which supplies a sufficiency of food for its portion of the daily ration, which is properly balanced as to its food principles, which is easily digested and assimilated and which is palatable. Within the range of this definition an infinitude of perfect meals can be found. I select for an example the following meal, which has among its merits simplicity of structure and cheapness (its ingredients cost less than twenty-five cents).

"A large bowl of whole wheat bread and milk and one or two apples or similar fruit, or, stated in definite quantities, a pint of milk, four ounces of whole wheat bread and eight ounces of fresh fruit.

"This meal has a fuel value of about 800 calories. It contains nearly 30 grams of protein, more than half of which is 'perfect' protein, about 20 grams of fat, and about 125 grams of carbohydrate. Its mineral content is satisfactory as regards varieties and quantities; calcium is supplied particularly by the milk, and phosphorus particularly by the whole wheat. It contains good quantities of vitamines, Vitamine A being supplied particularly by the milk, Vitamine B particularly by the milk and the whole wheat Vitamine C particularly by the fresh fruit, Vitamine D particularly by the milk and whole wheat, and Vitamine E particularly by the whole wheat.

"It is digested easily by most people; if difficulty exists in regard to the digestion of milk it can generally be obviated by modification or substitution of proper equivalents.

"It is easily assimilated; and being favorable to the development of the acid forming as against that of the putrefactive types of bacteria, as well as purin free, it is well suited for inclusion in an 'easy diet' and has hygienic advantages.

"It is reasonably palatable; a liking for it is not difficult to acquire, and one does not tire of it.

"This meal can be varied considerably without essentially changing its character, by modification, substitution of equivalents and rearrangement of its elements.

"Among the different forms in which this meal may be served are the following: a. A bowl of bread and milk with fruit on the side. b. A bowl of bread and milk and berries. c. A large glass of skimmed milk or buttermilk with bread and butter and fruit. d. Cheese sandwiches with fruit. e. Bread and butter with cream cheese, fruit salad. A convenient and generally acceptable form in which it may be served is as a bowl of bread and milk with baked apple. In the form of a bowl of bread and milk and huckleberries it should appeal to an epicure."

This formula for a perfect meal is offered without prejudice to other perfect meals. It is fitting and proper that the diet should be as varied as circumstances permit; the pleasures of the table are legitimate within bounds; a combination of meat, potatoes, bread and butter and salad may also be a perfect meal. The meal here described has a place in the dietary of both health and disease.

For the pint of whole milk may be substituted as approximately equivalent in protein content and not notably different in quality, the following: A. Skimmed milk or buttermilk, 16 ounces, with butter, ¾ ounce. B. Cottage or pot cheese (curd), 2½ ounces, with butter, 1 ounce. C. American, Swiss or full cream cheese, 2 ounces, with butter, ⅓ ounce. D. Whole milk, 8 ounces, with cottage cheese, 1 ounce, and cream, 2 ounces. F Whole milk, 8 ounces with American, Swiss or full cream cheese, 1 ounce.

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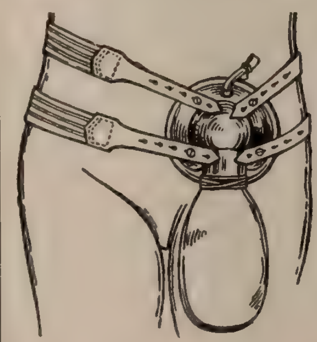

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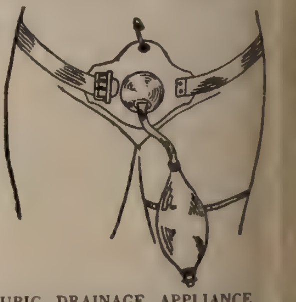

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ARSENIC FINDINGS IN DERMATOLOGICAL CONDITIONS*

By BINFORD THRONE, M.D., L. S. VAN DYCK, M.D., ELEANOR MARPLES, A.B., AND C. N. MYERS, Ph.D.

From the New York Skin and Cancer Hospital, New York, N.Y.

ARSENIC is one of the oldest drugs used in medicine. The ancients knew two sulphides of this metaloid, Realgar, the red sulphide, As_2S_2 and Orpiment the yellow sulphide, As_2S_3.

The earliest record of the use of arsenic in medicine is found in Rasaratnasamuchchaya, an East Indian materia medica dated 1300 B.C. In this work Orpiment is recommended in the treatment of leprosy. It also contains a receipt for a mixture of arsenic and pepper to be used in intermittent fever. This seems to have been the fore runner of our present Asiatic Pill. Hippocrates (460-377 B.C.), Aristotoles (384-322 B.C.), Dioscorides (40-90 A.D.) and Avicenna, the great Arabian physician all knew and recommended arsenic in the treatment of various diseased conditions.

For many years it has been known that the internal administration of arsenic could cause inflammatory disturbances of the skin and nerves. The skin condition could vary from a simple erythma to a generalized exfoliative dermatitis, and from vesicular and bullous eruptions to those causing gangrene. From its long continued use a variety of lesions have been described, the most characteristic of which are keratosis and pigmentation. Hyperkeratosis of the palms and soles with thickening of the nail bed and changes in the nails are frequently seen. Psoriasiform lesions of the dorsa of the fingers and near the elbows have been described[1]. The possibility of malignant degenerations occurring in arsenical keratoses is well known. Leitch and Kennaway[2] were able to produce a wart upon the epilated skin of a rat by the external application of a 0.12 per cent arsenious acid. The wart later degenerated into a typical squamous cell carcinoma. Bayet and Slosse[3] as the result of the analysis of factory dust supported the arsenical causation of industrial carcinomata. W. J. O'Donovan reported[4] three cases of occupational arsenical cancer seen at the London Hospital. O'Donovan quotes from the Pharmacologia of John Ayrton Paris, fourth edition, 1820. "It may, however, be interesting and useful to record an account of the pernicious influence of arsenic fumes upon organized being as I have been able to ascertain in the copper smelting works and tin burning houses of Cornwall. This influence is very apparent in the conditions of both animals and vegetables of the vicinity; horses and cows commonly loose their hoofs, and the latter are often to be seen in the neighboring pastures crawling on their knees and not infrequently suffering from a cancerous affection of their rumps ——. It deserves notice that the smelters are occasionally affected with a cancerous disease of the scrotum similar to that which infests chimney-sweepers." This is the earliest reference to the relation of occupational contact with arsenic as a causative agent in dermatological conditions, that we have seen.

Since the introduction of the arsphenamines in the treatment of syphilis and the skin reactions caused by them an intensive study has been made to explain the mechanism of these reactions and to develop a plan of treatment for their relief. During the last year and a half we have directed our efforts to determine a possible relationship between arsenic intoxication and various dermatoses. The initial cases to direct our attention to this line of work were reported in a previous communication[5] together with the diagnostic procedure. In one of these cases the arsenic had been given for medication, in the other one the arsenical intoxication had been acquired through absorption through the skin following the long continued use of calamine and zinc lotion. This lotion on analysis showed 0.84 mgs. of arsenic per 100 gmmes. of dried specimen.

In this paper we will give our arsenic findings in various dermatological conditions and try to explain its action.

Scleroderma;

This condition has been one of the many mysteries of dermatology as to its causation. A rational treatment has been equally obscure.

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*Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, May 10, 1927.

All kinds of causes have been assigned to it from exposure to cold and wet to changes in the central nervous system. Hyper and hypo function of all the endocrines have been described as accompanying the process; at times the same patient showing both conditions. In a most excellent review of the endocrines causation of this condition Castle[6] in his conclusions says "Out of the very large amount of literature which has appeared on the subject of scleroderma there is very little which helps to any great extent in the elucidation of its aetiology." As to its association to a deficiency of the internal secretions he says, "In most of these cases the deductions are founded on a misconception. It is surely erroneous to suppose that because the extract of a gland may improve or even cure a case, the underlying cause of the disease was a deficiency of this gland." He groups trauma and irritation together and says "however it seems probable that damage to the skin and subcutaneous tissues may predispose the subject to scleroderma if there are any other influences present which would by themselves tend to produce scleroderma." "From the consideration of my own and the many published cases, I consider that the essential cause of scleroderma is a combination of a disordered function of the internal secretory glands, together with an affection of the nervous system. It is more probable that the internal secretory system acts as a whole and if any particular gland fails, the remainder act in a way to minimize that failure and so, it is impossible to fix the responsibility on any gland."

While Castle says that an affection of the nervous system is most probable, he does not make any statement as to whether this affection is primary or whether it is secondary to endocrine dysfunction.

Ayers[7] in 1920 reported three cases of scleroderma in whose urine arsenic was found. He pointed out the similarity of its symptoms to those of arsenic poisoning, especially in its neuritic symptoms and pigmentation.

Cockayne[8] considered it a trophoneurosis due to disease of the vegetative nervous system. The prodromal symptoms of scleroderma, erythema, pains, pigmentation, transient attacks of local asphyxia as are seen in Ranaud's disease, he thinks support this view.

In our series of 9 cases, we had no case which began on the head or neck except one. All cases except one were asymetrical. In all cases the inguinal region was involved to a more or less extent. This inguinal involvement was characterized chiefly by pigmentation, the more severe changes, which were present on the other parts of all the patients were not so marked in this region, and the final atrophy in this region was always slight. In some of the cases the absence of pigmentation around the hair follicles was clearly marked. In each patient the location of the lesions definitely followed nerve distribution.

In each case arsenic in pathologic amount was found in the urine following the injection of sodium thiosulphate.

The following is a brief history of some of these cases and the arsenic findings in their urine:

No. 1. Betty G., this case was reported in detail in the *Archives of Dermatology*, Feb., 1924, page 187, by Chas. Mallory Williams. For a description of the case this article can be consulted. Under treatment with sodium thiosulphate there has been a marked improvement both in the skin and in the patients' general condition.

Below is the report of the arsenic findings. Thirty-one determinations for arsenic were made. The amounts found varied from zero to 0.626 mgs. per 100 gmnes. of dried specimen or from none to more than twenty times the amount which could be considered normal.

No. 2. J. N., male, aged 34 years. Duration of the disease four years. Case showed extensive involvement of both ankles, left arm and fore-arm with the process extending down onto the dorsum of the left hand. The right thigh was involved and right inguinal region showed the typical pigmented condition.

Under treatment with sodium thiosulphate there has been improvement. There has not been any extension of the process in any of the involved areas.

Below will be found the arsenic findings in this case.

No. 3. E. S., female, Jewish, aged 9 years. Duration of the disease three years. The left inguinal region, fibular of the left leg extending onto the dorsum of the foot and the right costal region in the area supplied by the fifth dorsal nerve showed extensive involvement. The lumbar region was markedly pigmented. This patient has been under treatment since March 8, 1926. She shows considerable improvement both of the skin condition and of her general health. The pigmentation has practically disappeared and the infiltration is lessening.

The arsenic findings in this case were positive and at times showed as much as ten times the amount considered normal.

Below is the report of the different analyses.

No. 4. F. P., female, Jewish, aged three and a half years. Showed lesions on the scalp, neck, at the lower angle of the right scapular. On the lower left costal and left lumbar region there were two band like lesions which extended around onto the abdomen. These bands were about two inches wide. The left buttock showed a patch about three inches in diameter. The right thumb showed sclerodactilitis. The lesions were all markedly pigmented. The child was extremely fond of sweets and the mother admitted giving her a great deal of candy. The only canned food eaten was canned peas.

The arsenic findings in this case were extraordinarily high. At times being over 3.0 mgs. per gmmes of dried specimen or more than 100 times the normal amount.

This patient was lost track of and we do not know her present condition.

Below is the arsenic report of her urine.

No. 5. Female, adult. The condition began on the knees and next appeared on the ankles, next the lumbar regions became involved. Later the hands, face, neck and feet were affected.

This patient had worked with a furrier and the absorption of the arsenic had taken place as the result of handling furs which had been sprayed with arsenic.

The results of treatment with sodium thiosulphate were exceptionally good; the patient being practically cured.

Below will be found the report of the arsenic findings in this case.

No. 6. Male, Jewish, aged 4 years. Duration of the condition several months. The lesions began on the buttocks and later appeared on the neck and trunk. They were markedly pigmented and followed nerve distribution. This case was much improved by treatment.

Below will be found the arsenic findings.

The other three cases were similar in their clinical symptoms and the arsenic findings corresponded to those reported within the six cases described above.

SCLERODERMA CASE NO. 1—BETTY G.

Date	*Specific gravity*	*% Total solids*	*Mg. arsenic per 100 gms. dry specimen*
1/15/26	1.015	1.10	0.260
1/17/26	1.020	1.48	Trace
1/19/26	1.017	1.83	0.213
1/16/26	1.018	1.32	0
1/20/26	1.025	2.36	0.395
1/18/26	1.019	1.53	Trace
1/21/26	1.017	1.79	0.128
1/22/26	1.020	2.56	0.130
1/25/26	1.020	3.06	0.221
1/27/26	1.019	2.71	0.128
1/29/26	1.017	1.88	0.206
2/1/26	1.019	3.01	0.077
2/3/26	1.019	2.04	0
2/4/26	1.019	1.59	0
2/5/26	1.020	2.40	0.166
2/7/26	1.016	1.46	0.300
2/8/26	1.028	2.81	0.053
2/6/26	1.023	2.21	0
2/9/26	1.008	0.59	0
2/10/26	1.014	1.56	0
2/11/26	1.010	1.03	0.231
2/12/26	1.016	1.58	0.156
2/13/26	1.020	1.70	0.082
2/14/26	1.017	1.88	0
2/14/26	1.030	4,12	0
2/19/26	1.020	2.46	0.626
2/21/26	1.017	2.55	0.095
2/23/26	1.019	2.41	Trace
2/26/26	....	2.11	0.345
2/28/26	1.023	3.82	0
3/2/26	1.020	3.50	0
3/4/26	1.013	2.03	0
3/8/26	1.022	1.37	0.147
3/10/26	1.021	1.33	0.247
3/12/26	1.020	2.29	0.078
3/14/26	1.023	2.79	0.073
3/16/26	1.025	4.48	0.048
3/18/26	1.026	3.45	0.108
3/20/26	1.029	3.67	0.078

SCLERODERMA CASE NO. 2—J. N.

Date	*Specific gravity*	*% Total solids*	*Mg. arsenic per 100 gms. dry specimen*
5/7/26	1.023	6.72	0.047
5/19/26	1.025	5.27	0
5/26/26	1.029	3.74	0.036
6/2/26	1.025	4.45	Trace
6/29/26	1.022	2.66	0
7/16/26	1.023	2.75	0
12/13/26	1.025	4.03	0.233
Early in March, 1926, exact date unknown		4.50	0.049
	1.026	4.48	0.044

SCLERODERMA CASE NO. 3—E. S.

Date	*Specific gravity*	*% Total solids*	*Mg. arsenic per 100 gms. dry specimen*
4/2/26	....	4.16	0.045
4/5/26	1.024	4.76	0
4/9/26	1.025	4.37	0.068
4/19/26	1.030	5.90	0
5/2/26	1.026	4.55	0.031
5/19/26	1.030	3.58	0.097
5/26/26	1.020	2.26	0.131
6/2/26	1.017	2.05	0.160
6/9/26	1.028	5.13	0.030
6/30/26	1.025	2.45	0.064
10/6/26	1.025	4.02	Trace
11/19/26	1.021	3.83	0.239
12/20/26	1.023	3.59	0.029
1/6/27	1.022	4.61	0
3/11/27	1.027	3.04	0.154

SCLERODERMA CASE NO. 4—F. P.

Date	*Specific gravity*	*% Total solids*	*Mg. arsenic per 100 gms. dry specimen*
12/9/25	1.017	2.34	3.64
No date	1.027	3.59	1.08
12/14/25	1.025	3.72	2.37
12/16/25	1.022	3.74	2.37
2/23/25	1.020	2.29	0.145
12/25/25	1.025	5.16	0,239
12/30/25	1.027	5.14	0.341
1/1/26	1.023	2.94	0
1/6/26	1.022	3.10	0.157
1/8/26	1.016	1.67	0.285
No date	1.027	3.57	0.157
1/11/26	1.023	2.87	0.601
1/13/26	1.017	1.73	0.343
1/15/26	1.017	1.66	0.362
1/18/26	1.012	1.05	0
1/20/26	1.015	1.31	0.147
1/25/26	1.030	4.44	0.098
1/24/26	1.019	2.67	0.177
1/27/26	1.022	2.62	0.169
2/3/26	1.022	3.08	0
2/26/26	1.014	2.32	0

SCLERODERMA CASE NO. 5

		% Total solids	*Arsenic in Mg. per 100 Gm. dry specimen*
Blood before treatment	11/9/23	22.50	0.030
Urine before treatment	11/9/23	2.54	Trace
Urine after treatment	11/10/23	2.18	0.535
"	11/11/23	2.05	1.540
"	11/12/23	1.77	1.150
"	11/13/23	2.13	0.552

		% Total solids	*Arsenic in Mg. per 100 Gm. dry specimen*
Urine after treatment	11/14/23	2.09	0.611
"	12/16/23	1.71	0.696
"	12/17/23	1.53	3.921
"	12/18/23	1.91	0.496
"	12/19/23	2.33	0.141
Blood	12/19/23	24.70	0.049
Urine	1/15/24	2.61	0.230
"	1/16/24	2.01	0.240
"	1/17/24	2.54	0.213
Blood	1/18/24	18.28	0.140
Urine	3/20/24	2.74	0.110
SCLERODERMA CASE No. 6			
"	12/30/25	1.61	Trace
"	12/31/25	2.97	0.157
"	1/1/26	3.02	Trace
"	1/2/26	3.02	0.138
"	1/3/26	1.62	0.452

Arsenic poisoning causing motor nerve paralysis.

I. D., female, aged 22 years, was referred to us by the neurological department of the Brooklyn Jewish Hospital for motor ocular paralysis of the left eye. Examination at that hospital was negative except for this paralysis. The symptoms she complained of were ptosis of the lid and double vision.

She had partaken of food in which arsenic had been put with homicidal intent, later she suffered a severe mental and nervous shock (she and her escort were held up by a highwayman). Her treatment began December 1, 1926. At present she is entirely well.

Her arsenic findings were as follows:

	Date	*Specific Grav.*	*Total Solids*	*Mgs. As. per 100 Gms. dry spec.*
Blood	12/1/26		20.68	0.104
Urine	12/1/26	1.018	3.24	0.255
"	12/3/26	1.023	3.91	0.113
"	12/6/26	1.014	1.90	0.458
"	12/8/26	1.023	3.59	0.136
"	1/3/27	1.016	2.19	0.050
"	1/7/27	1.015	1.87	0.238
"	1/21/27	1.031	4.84	0
"	2/25/27	1.031	3.55	0.094

CASES ASSOCIATED WITH PIGMENTATION AND BLOOD VESSEL REACTION

Case No. 1.—S. W., male, aged 25, Jewish, showed on the inner side of the left ankle pigmented, rounded, elevated lesions suggestive of hypertrophic lichen planus. The corresponding side of the right foot and ankle showed small pigmented lesions which were not elevated. Atrophy and moderate telangiectasia were present on each side. The biopsy report by Dr. D. S. D. Jessup was as follows:

Slight hyperkeratosis and acanthosis, flattening of the papillæ. The papillary body and upper part of the derma showed a marked increase of capillaries between which there were many pigmented phagocytes. There was some pigmentation of the basal cell layer of the epidermis and scattered pigment, cellular and extra cellular all through the lower derma. The histology of this case corresponds very closely to that of Majocchi's disease. Hyalin degeneration of the vessel walls was absent. The clinical appearance as stated above suggested lichen planus hypertrophicus, and the amount of pigment was greater than is usually seen in purpura annulale telangiectoides. The urine after thiosulphate showed 0.066 mgs. of arsenic per 100 gms. of dry specimen or twice the amount which could be considered normal.

Leucoderma.—Two very unusual cases of this condition were seen. The first was a man aged 22 years, showed spots of depigmentation on the neck, shoulders and arms. These spots had been present for a few weeks when he consulted a physician who prescribed Fowler's solution. After he had taken this preparation for a short time there developed at the edges of the leucoderma areas a raised, elevated and scaly border, which showed moderate infiltration. On a few of the leucodermic spots themselves there was a fine telangiectasia. Case 2 was a female, aged 5 years, who showed an exact picture of the above case. In this case there was no history of medication. Thiosulphate of sodium was given by injection and her urine showed the following amounts of arsenic.

S. W., Case 2 of leucoderma, described above.

Date	*Specific Gravity*	*Total Solids*	*Arsenic mgs. per 100 Gms. Dry Specimen*
11/2/26	1.033	4.57	0.056
11/12/26	1.028	4.38	0.191
11/19/26	1.022	4.16	0.142

Treatment with sodium thiosulphate has resulted in a complete disappearance of the inflammatory borders of the lesions. Of course, it has had no effect upon the leucoderma spots.

ARSENIC IN ASSOCIATION WITH ARSENICAL MEDICATION FOR PEMPHIGUS

Mrs. X., Jewish, aged about 55 years, had suffered for several years with pemphigus vulgaris. She had been treated by the Davis method with injections of iron cacodylate and coagulin. This line of treatment at first controlled the condition, but after a time it became inert, and when she was seen there were new lesions on the trunk and limbs, the old lesions would not heal; around and in the bases of the old bullæ there was a large amount of pigmentation, in most of these places it was almost black and in some places, in addition to the pigmentation, there was a papillomatous growth. The patient complained of intense pruritus. The veins having become occluded by the arsenic injections, sodium thiosulphate was given by ingestion, 30 grains per day. The physician in charge of the case informed us a few weeks later that the pruritus was relieved, the pigmentation was absorbed, the old lesions healed and no new bullæ appeared for some months.

Psoriasis.—Two cases of this disease were examined for arsenical intoxication.

The first was a male, aged 40 years, who had suffered from this condition for many years. When he applied for treatment the eruption was very widespread. The hands showed involvement of both the palms and the dorsa. The fingers showed the same condition. It was impossible for him to close the hands. The feet were in the same condition as the hands. In addition to the psoriasiform eruption on both the soles and palms there were a few keratoses. He was treated with injections of sodium thiosulphate every third day and on the alternate days the drug was given by mouth. He cleared up entirely except for a few typical psoriasis patches on the extensor surfaces of the large joints and on the back.

His urine showed the following amounts of arsenic: 10-15-26, specific gravity, 1.022; total solids, 4.08; arsenic mg. per 100 gms. of dry specimen, 0.033.

We might add that the only external treatment used was a mixture of wool fat and petrolatum.

The second case was a woman aged about 35 years who had shown the disease since childhood and in whom the condition had become generalized. The generalization had been present for many years.

Her urine showed the following:

Date	*Specific Gravity*	*Total Solids*	*Arsenic mgs. per* 100 *Gms. Dry Specimen*
4/23/26	1.012	1.42	0.293
9/23/26	1.031	3.92	Trace

This patient did not continue treatment and her present condition is unknown to us.

In our former paper[10] we reported a series of patients in whom arsenic was an etiological factor in the causation of their eczema. The following cases are typical of what we are finding daily.

A. H., white, male, born in America, applied for treatment August 26, 1926, for a universal papulo-vesicular eczema associated with extreme œdema of the skin. The disease began in 1918 after he had been exposed to an insecticide containing arsenite of lead which was used to spray the wheat fields in his neighborhood. The Canadian Government had established a depot for the distribution of this preparation on his farm. About three weeks after exposure to this powder his eczema developed. He also showed severe dental infection.

A differential leucocyte count at the time of his admission to the hospital was as follows:

Polys	53 per cent.
Lymphocytes	31 per cent.
Transitionals	2 per cent.
Basophiles	1 per cent.
Eosinophiles	12 per cent.

Another count, made in October, showed 16 per cent eosinophiles and 24 per cent lymphocytes.

Case 2.—Jos. H., aged about 35, white, was seen in September, 1926. He showed a universal erythematous oozing eczema. He was exposed to an insecticide several years before the development of his skin condition. In addition to his eczema he had a beginning subcapsular cataract in each eye. He responded to thiosulphate therapy and at present his skin condition is entirely normal. His eyes have recovered sufficiently for him to be able to read and write.

His arsenic findings were:

Date	*Specific Gravity*	*Total Solids*	*Arsenic mgs. per* 100 *Gms. Dry Specimen*
9/18/26	1.020	3.53	0.042
9/20/26	1.020	2.46	0.066
9/22/26	1.026	4.45	0
9/24/26	1.021	3.99	Trace
9/26/26	1.030	5.91	0.305

Case 3.—Mr. P. was referred from Cleveland, Ohio, recently for a squamous eczema of the hands of 14 years' duration.

Before the injection of thio his urine was negative for arsenic; after the first injection of 0.5 of this preparation his urine showed 0.404 mgs. per 100 gmmes. of dry specimen. After the second injection, given two days later, the amount of arsenic had risen to 1.119.

To report other cases would only be a repetition of the above.

PIGMENTATION

Two cases of this condition were investigated. The first, a man aged 25 years, showed quite a large patch in the right illiac region with extension of the pigmented area around towards the back and down onto the thigh. In this case the clinical appearance corresponded to the typical text-book picture, a diffused discoloration with the hair follicles not involved but standing out as minute white specks on the dark brown background.

The second case was a woman, aged 30 years, with a uniform pigmentation over the left shoulder.

The arsenic findings in the first case were positive.

In the second case.

	Date	*Specific Gravity*	*Total Solids*	*Ars. mgs. per* 100 *Gms. Dry Sp'men*
Blood	11/22/26		19.50	0.138
Urine	11/22/26	1.009	1.30	0.345
"	11/24/26	1.023	4.90	0.440
"	1/7/27	1.012	1.76	0.379
"	2/7/27	1.010	1.88	0.525

ECZEMA

Our conception of the mechanism of this condition was discussed by us in a previous article[9]. At that time, it was pointed out that eczema was primarily a problem of œdema in which the function of the cell itself was involved. Morphologically and histologically, even when studied in detail, eczema does not represent a sharply outlined picture, for there are found in it transitions to erythema, dermatitis and urticaria. The individual eczema stadia often appear co-ordinately, or are seen following each other. Its pathology, briefly summed up, is an œdema of the skin most marked in the epidermis and the upper part of the derma and preceding this œdema an engorgement of the vessels of the papillary and, at times, of the deeper layers of the corium. It is distinctly an inflammatory condition involving the blood-vessels and epithelial cells associated with œdema. It is not necessary to repeat the different theories about the causation of eczema. Bloch's findings (quoted from Pulay), however, show that the skin of 5 per cent of seemingly normal persons was hypersusceptible to ordinary irritants. In a previous paper, we gave our findings on arsenical causation of eczema[10]. Since the publication of that article, we have had numerous cases in which the arsenic findings and the resolution of the diseased process under arsenic eliminating treatment has completely borne out our previous conclusions and at present it seems that in not less than 30 per cent of all cases diagnosed as eczema, arsenic is either the actual exciting cause or at least a contributory cause of the greatest importance.

Mechanism of the Action of Arsenic

The investigations of Mueller and others[11] have shown that following the injection of the arsphenamines, there is a reaction of the involuntary nervous system immediately in both the healthy and in the syphilitic. Fordyce and others[12] have shown that, following these injections, the arsenic disappears rapidly from the circulation and that as the amount of arsenic excreted is not equal to that lost from the blood stream it must be deposited in the tissues. The excretion of arsenic takes place by way of the kidneys, liver and, in cases of dermatitis, through the skin also. After the primary drop the amount of metalloid increases from the 72nd to the 96th hour after the injection. It then maintains a fairly constant level of 1 mg. of arsenic per 100 gm. of dried specimen. This constant elimination shows that the arsenic is being liberated from its storage places in the body into the blood stream and will be passed from the blood to all parts of the body, one part going to the excretory organs and the other part accumulating in the tissues. In the normal being this process continues until practically all the arsenic is eliminated. Mueller and Myers have shown that the reaction of the vegetative nervous system is greater when it is out of ballance, especially when there is a predominance of the vagus component. The autonomic nervous system controls excretion, the calibre of the blood vessels, electrolyte balance, the detoxicating function of the liver and, through the endocrines especially the thyroid, water metabolism of the tissues.

In disturbances of the vasomotor nerves by a prolonged circulation of arsenic in the blood over a protracted period of time, three principal excretory organs, the liver, skin and spleen, lose their power not only of excreting arsenic from the body but also of transferring arsenic and probably other products of metabolism from their tissues to the circulation.

From the chemical analysis of the scales, the arsenic protein has been proven to be a chemical combination with cysteine, the arsenic combining with the SH radical of that protein, which is found in the cytoplasm of the cells. The cell nuclei contain glutathione which also has a —SH radical and nerve cells also contain this same —SH group.

Action in Eczema

Eczema which is an inflammatory reaction shows, as do all such reactions, vessel dilation and increased cell permeability for the blood plasma and consequently an inflammatory œdema develops. This vessel dilatation can be caused directly by a primary vessel disturbance o through the action on the vessel endothelium and walls or indirectly through the nervous system. Involvement of the vegetative nerves i present in all œdemas. Inflammation-producin substances are divided according to their poin of attack into two classes: First, those whic act through the nervous system and, second those which act directly as a specific vessel poison or as protoplasmic poison destroying or altering the living protoplasm. Arsenic is a vesse poison causing vessel dilatation. Wells[1] states that the combination of a foreign protei or a chemical with the body proteins gives then antigenic properties. In œdema there is alway an alteration of electrolytic balance. In eczema therefore, we find the following changes cause by arsenic. A primary disturbance of the vagus sympathetic balance. The findings of eosinophilia as seen in the case of A. H. would poin to a vagotonia. The frequent development o symptoms of vagotonia during treatment wit sodium thiosulphate and the beneficial effects o calcium therapy at this time are added suppo of this hypothesis. The perverted carbohydrat and chloride metabolism as shown by us[1] shows the action of arsenic either directly o the liver or reflexly through the vegetative sys tem, or what is more probable, a combination o both. The arsenic combination with the prc tein of the cells of the skin and other organ alters electrolytic balance. The action of all living tissues is to try to get rid of foreign bodie In order to do this, more fluid is brought to th part to dissolve and consequently to wash the offending substance away. This arsenic compound is insoluble in the tissue and blood fluids. When the hydrogen ion concentration is increased, the compound remains as a precipitate. Changes tending to reduce the hydrogen ion concentration cause the precipitate to go into solution. In the treatment of eczema and the nerve lesions with sodium thiosulphate, the excess of —SH radicals are able to dissolve the arsenic protein and facilitate its removal by the excretory organs.

Conclusions

In this paper we have reported the following diseases and conditions in which arsenic was found in pathological amounts in the urine, eczema, scleroderma, leucoderma, psoriasis, Majocchi's disease, pemphigus, motor ocular paralysis and pigmentation.

In eczema we believe that it is present in at least 30 per cent of all the cases of this disease which we see. In some of these it seems to act as an exciting cause, the symptoms appearing almost at once after contact with the arsenic, as was shown in Case 1; at other times it seems to be deposited in the skin and to sensitize it and when later the patient is exposed to a banal irritant the reaction is in the form of eczema, this was shown in Case 2. It seems that in this delayed appearance of the eczema there is an explanation of Bloch's 5 per cent of seemingly normal persons who react as eczema on exposure to external irritants. It is also possible that other substances in addition to arsenic can be deposited in the skin in the same manner as arsenic is; these substances could be other metals such as mercury and lead or they could be proteins.

In scleroderma it seems that the arsenic attacks the vegetative nervous system first and later, possibly through this system, the endocrines are affected.

In the case of motor-ocular paralysis the arsenic had combined with the SH radical of the nerve tissue and through this combination the nerve function was altered.

In both the cases of motor nerve and autonomic nerve involvement, in all probability, there was a previous injury of some kind and this injury created a point of lowered resistance.

In the cases of leucoderma, which were unique, the affinity of arsenic for pigment caused the deposit in the pigmented region adjacent to the depigmented spots. Melanin contains sulphur and the arsenic in these cases, as in eczema, combined with the sulphur. Arsenic is also a direct vessel poison and this probably had an influence on the vessel dilatation which was present.

This same explanation in all probability applies to the case of pemphigus.

The findings in the cases of psoriasis would seem to show that generalization in this disease is, in all probability, due to a retention of arsenic and not to an extention of the pathological process. In psoriasis of the palms the same is true. From our results in one of these cases we believe that all cases of these types should be investigated for arsenic intoxication and should be treated on the lines of arsenic elimination.

In the case resembling Majocchi's disease we were able to make too few determinations and the case was under observation too short a period to allow any conclusions.

Arsenic intoxication causing pathological conditions can be acquired either through medication, food contamination or through occupational contact. From our studies we believe that fool contamination and occupational contact are the more frequent sources of the poisoning.

We believe that our studies are only the beginning of studies which will elucidate many obscure conditions.

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FATIGUE IN CHILDREN*

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ATTENTION has been attracted to the problem of fatigue in children because of a relatively large number of children concerning whom the chief complaint has been "being tired." In addition, there are certain children who, ill with diverse conditions, usually show marked improvement only when adequate rest is secured. There is also the occasional child who presents a set of vague and indefinite signs and symptoms which do not fall into usually accepted channels, and who exhibit their evidences of illness without definite accompanying pathology.

A differentiation must soon be made between the ordinarily accepted fatigue process as part of the normal body routine, and that degree of "overfatigue" from which complete recovery is not immediately possible, and which, by repetition, may lead in a cumulative way, to more serious difficulty. The term "overfatigue" is a faulty one, in that all fatigue implies a condition of being tired, but is generally accepted to mean a much greater degree of tiredness, often approaching exhaustion. There are no hard and fast lines where fatigue begins, nor where the varying degrees of fatigue may be separated; nor is it possible to completely isolate this condition from the many diseases occurring at the same time. In other words, it must be readily admitted that one is not dealing with a sharply defined disease entity, but rather with one having wide and frequently changing limits. It is most difficult to separate fatigue from a large group of intestinal disorders and the errors of elimination. Fatigue, then, may be merely a symptom, occasionally a disease process in itself, but particularly an abnormal process predisposing to some more serious disorder. With the exception of a fairly well defined "acute fatigue," the onset is nearly always insidious, stretched over a relatively long period of time, and may be entirely overlooked until some intercurrent malady attracts attention.

One who has dealt with many children may easily draw the picture of the "tired child," who seems always to be making an effort to pay attention, always "on edge," or easily annoyed. His speech is often hesitant, as though "shy"; sometimes there is the attempt to speak too rapidly, may be in a strained tone, and with more or less stammering. His color is nearly always pale, frequently with little tell-tale spots of high color—a peculiar type of flush upon the otherwise greyish or pallid skin, most often located near the eyes. The posture is very frequently defective, nearly always drooping, and often tensely held in whatever position is assumed. There is nearly always a forward bowing of the shoulders, a relaxation of the spine, particularly that backward bowing in the lumbar and lower dorsal region when sitting or, on standing an exaggeration of the normal curve, with marked thrusting backward of the shoulder blades. This flattens the upper anterior thorax, and helps portrude the abdomen, particularly in the flanks. The position of the head is thrown forward at the chin, and the expression of apparent inattention, or extreme effort in concentrating, are very characteristic. Lines of facial expression seem often to be obliterated by some subcutaneous thickening, or trick of muscle tenseness, leading for example, to tightly drawn, frequently cracked lips, varied by little spasms of the facial muscles. The eyes appear partly open, with rather red edged lids, deep circles underneath, and with muddy colored sclerae, approaching a shade of icterus. In certain states of fatigue, the impression is given that the eyes are making an effort to see everything going on, wherever the child happens to be, and no matter how many persons or things may be in his vicinity. The extremities may be in almost constant motion, or displaying frequently repeated movements suggesting chorea; ankles are nearly always relaxed, with feet diverging, suggesting uncomfortable arches. The general picture of a weary child is one never to be forgotten.

As part of a process of this type, many signs and symptoms are to be observed, and in this connection, many of those most frequently found are here enumerated. Owing to the fact that the nervous system appears to be a frequent sufferer, I would mention irritability as one of the most common. With a general hypersensitiveness, often varying with the time of day, et cetera, this irritability may show itself by a quite uncalled for "flood of tears," a brain storm or "tantrum," a keen dissatisfaction with things which usually please, a difficulty in getting along with other children or with strangers, or an inability to accept slightly different conditions. There are frequently tricks of vision, culminating in the complaint of inability to see distinctly, and yet for which the oculist may find it impossible to prescribe lenses. Teachers frequently report that a student does not pay sufficient attention to understand what is going on, or merely dismiss the condition with the proverbial "poor marks." There is frequent inability to relax, often going to such an extreme as to result in the observation that "he fights sleep." When sleep is attained it is apt to be restless, and the child may awaken, cross and irritable, and claim an inability to find a comfortable position. He may show a marked susceptibility to slight changes of temperature, with teeth chattering and body shaking in a chill on a few degrees drop, or perspiring freely with a relatively slight rise. The reflexes are variable, depending upon the degree of fatigue and the presence of concurrent conditions. Headache, otherwise unexplained, has been a rare complaint. Some observers have reported emotional irritability, and impaired imagination, giving rise to weird tales and impossible explanations, but I frankly confess that I have had no experience in this field.

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Examination of the heart usually shows a somewhat rapid rate, especially on slight exertion, and varying markedly with the mental state. The heart seems to "flap" against the chest well, as though in a lazy, shortened effort at contraction. Frequent extra systoles are found without other explanation than the evident fatigue. There is often a rapid change of color, particularly noticeable with varying mental states of anger, fear, or surprise.

A rather frequent complaint is that of excessive perspiration of the neck, axillae, palms and feet. This often accompanies the finding of cold, bluish, or mottled, clammy extremities. The hair and nails are often brittle. Itching and the habit of scratching are frequent, although no sign of rash or other possible cause can be demonstrated. "Black and blue" marks appear easily, with only slight provocation, or with no known trauma.

Fatigue kiddies have frequent "colds," or manifestations of mild allergy—mild hay fever, or mild asthmatic bronchitis. There is a frequent clearing of the throat without demonstrable reason, and often unknown to the patient himself. Sighing is common, often with a cogwheel type of inspiration resembling sobbing.

The mucous membrances of the mouth are apt to show very little if any change, other than the finding of swollen, spongy gums, which bleed easily, but which do not necessarily give evidence of infection. Parents often take exception to the appearance of the gums because of an extra effort put forth to keep the mouth in excellent shape. There is often an accumulation of gas throughout the stomach and intestine, and an almost constant finding of an abnormally large amount of gas, accompanies the relaxation of the abdominal wall. Constipation appears to be the rule, often without change in the type of character of the stool. I am tempted to believe that, in certain cases, at least, retention of stool arises from a failure to appreciate a desire to have an evacuation, or from difficulty in relaxing the sphincter.

Mothers often complain that the patient urinates frequently during both the day and night, but distension appears to waken him before involuntary voiding takes place. In other words, eneuresis is not frequent, except when a marked exhaustion is present, and when the sensibilities may be markedly dulled. There is rather frequent irritability of the genitals—erections on slight irritation, as from clothing, are frequently complained of.

Both mental and physical endurance appears to be lowered by fatigue. It seems particularly marked in its relation to infections, and in these histories, it is frequently noted that a child is discovered to be the victim of several illnesses only since the onset of symptoms referable to fatigue. We frequently hear that a child has managed to escape infections until some definite fatiguing effect was noted. Granting that school routine brings undue contact with disease sources, have we forgotten that the average child becomes as tired with his duties as his mother at her task, and his father in his work, or possibly, as his doctor in his sphere of activity?

Another observation is that convalescence from infectious diseases appears to be delayed where the patient has been depleted by a degree of fatigue over some time. In a general way it may be said that the more tired an individual, the longer it takes him to react from a given illness.

I wish it were possible to crystallize into concrete form certain factors which may be regarded as causative, as follows:

1. Effort beyond the individual child's ability;
2. Lack of balance between mental and physical capacity, as for example, the child who finds it impossible to work or to talk as rapidly as he thinks; the "high voltage" child;
3. Attempting to keep up with older, stronger, or larger members of the family or school;
4. The constant association with adults, or association with adults over a long period of time; where the mental and physical reaction is copied after the example of the adult. This is especially marked in the all too frequent attempt on the part of adults to place responsibility upon the child;
5. Urging along in school; skipping grades; attempt to keep up to a reputation, individual or family, for brilliance;
6. Studies outside of school: music, especially with long practice hours; dancing lessons;
7. Overplanned routine for children, in which there is no time to sit down, or insufficient time for sleep, meals, et cetera. This is best illustrated in the governess problem, wherein a child has practically no time for spontaneous diversion. Another example is that of visitors in the home, where a youngster attempts to do the entertaining, and often tires out several adults in any given day;
8. Daylight saving time, often regarded as an extra hour for vigorous and fatigue-producing activity;
9. Unsupervised athletics or playground;
10. Overclothed—where the garments are so many or so poorly arranged as to make for a large amount of weight to be carried, or else make it impossible to move freely;
11. Eyestrain;
12. Poorly ventilated rooms, especially bedrooms; faulty posture in bed; too heavy bed clothing; habit of covering the head in sleeping;
13. Overeating or improper eating, wherein too

large a quantity or too indigestible a type of food is taken in, especially after vigorous play. Fatigue seems to become much more marked when digestion is attempted in the presence of even a slight degree of tiredness;

14. Localized discomfort, as nasal obstruction, or slightly loosened teeth;

15. The group of children known as "trouble borrowers" or "anticipators," who have become accustomed to looking forward to something unpleasant. This group also includes the children who have been constantly "nagged" in order to discipline them, or in the effort to make them pay attention.

The pathology of this condition is nearly always complicated by that of other intercurrent illnesses. It resolves itself into the findings as the result of life processes, only in exaggerated form. There is little to work upon, as there is limited material for examination, particularly under the present conditions of physiological chemistry and other methods of approach. There is probably a high degree of intoxication resulting from failure of elimination, improper, slow nutrition and complicated by the intoxications of probable disease processes.

The prognosis, uncomplicated, is nearly always good, although slow. In general, the longer the duration of fatigue, the slower the recovery. Individual reaction to the cause and the relief of complicating factors play an important part. Intercurrent conditions, such as those of twentieth century life, the need of an education, certain infectious diseases, and the wear and tear of competition, even in childhood, stresses the large degree of co-operation required from all directly, or indirectly, concerned. Another important factor lies in the ability of the patient to adjust himself to conditions, when he becomes improved. There is a marked tendency to recurrence, although recurrence does not necessarily result from the same causative factor.

Treatment must be directed at the particular cause or set of causative factors at the bottom of the process—easy in theory, often most difficult in the practical workout. Mechanical rest means not a mere going to bed, but a complete relaxation, both mental and physical, and over a relatively long period of time. It is questionable whether a real rest can be attained in less than three consecutive days, and this may have to be stretched out over a period of weeks. As soon as the initial rest is obtained, more and more leeway may be allowed, permitting partial resumption of play, or school, and some association with other people. It is important, that in combatting fatigue, few people and only those with a quiet manner, have access to the patient, so essential is the power of example. Avoid all argument with the patient. Occasional explanations, brief warning of what is to be undertaken, and answering of some essential questions is necessary, but to carry on a long conversation or to attempt a complete conversion to a way of thinking is practically impossible, and not productive of results. If necessary to attain the end, secure a definite geographical change, as, from city to country, from seashore to mountains, or from sea level to hills, or the reverse, as indicated. Another important point about securing the necessary rest, is to establish an absolute regularity of the day's routine, without the patient being aware that a new regime has been instituted, and without the patient being consulted about it.

Sedative baths, usually warm, and frequent cleansing of the skin, usually help. As soon as practicable, the institution of mild corrective exercises, never to the point of mental or physical exhaustion, may be used to occupy the patient's time, and also to begin the upbuilding process. Secure all the direct sunshine that is possible providing this is not irritating, and whenever possible, suggest that all activity be carried on in the open air. A frequently helpful measure is the relief of cold extremities by the use of gentle friction, electric pad, or hot water bottle, or the wearing of bed socks. Gentle massage over large areas with stroking and rubbing is often very grateful, and distinctly helpful in assisting elimination.

I have been unable to completely separate the fatigue problem from that of insufficient elimination. However, the elimination factor is an extremely important one, in connection with fatigue from whatever cause. Forcing water, care of the skin, and the institution of deep breathing exercises to assist lung action are important. The light laxatives, preferably the saline, are indicated early, while later, bowel control by mechanical or dietetic means may be sufficient. A series of saline laxatives may be rotated, but the main thing is to secure evacuation.

The sedative is found to be a legitimate medicinal treatment, providing it does not interfere with some other phase of treatment, as for instance, bowel action. Morphine derivatives are to be avoided, but bromide preparations, or the less harmful of the coal tar products will not only be found advantageous, but distinctly beneficial in securing rest, and in taking the edge off the unusual things which crop out now and then in the followup. Another valuable point to be remembered, is the mental effect of the use of medicine being explained to the child patient,—he has no judgment in the matter and should not be consulted.

It is difficult to estimate the value of suggestion and mental therapy under conditions of fatigue. If the treatment can be turned into a game, and relaxation obtained with as great interest as was manifested in the thing which brought on the fatigue, you will have no difficulty in this phase of the treatment. The example of quiet surroundings, and a quiet personality in the room, play a very important part here. The nurse or attendant can be doing best work without paying direct attention to the patient, and at the same time can accomplish things in the way of mending, sewing, or reading quietly to herself. At times a patient is to be read to, pictures explained, and quiet conversation carried on, but these contacts will have to be gauged by the underlying cause of the process, and by the patient's reaction to that which is talked about. The child must accept the plan of his nurse or supervisor as a decision of the highest court, whereby certain problems are quietly dismissed, the mind diverted, and non-stimulating conversation substituted as needed. A simple plan is to have the patient read to, under certain hard and fast conditions, as in a darkened room, with a bandage lightly over the eyes, the body slightly propped up on pillows, at the same time that the patient is taught to breathe slowly and deeply, and keep his extremities perfectly relaxed. It is a good plan in reading to resort to only those stories of a non-stimulating nature, which have been previously read and reread. Rewards for co-operation are of some value, but it must be distinctly understood that such possible rewards are not to be discussed with the patient, nor is the bribery or the threat of withdrawal of reward to be countenanced. Have it clearly understood that if some unusual strain is to come, the patient should prepare for this in advance, instead of agreeing to make up for it at a later time. In this way a child sleeps an extra hour in the morning in preparation for sitting up out of bed twenty minutes in the afternoon, instead of waiting until after the sitting up session with the expectation of his sleeping an extra hour that evening. This plan of securing rest might be applied in many fields.

The prophylaxis of the fatigue condition is largely a matter of education on the part of parent, medical advisor, governess, teacher, athletic supervisor, or whoever comes in contact with the child. The adult contact should be a good observer of a child's individual peculiarities, his ability to execute an effort, his reserve power, et cetera, in addition to being well informed as to what the average child should attempt and can easily accomplish. Most children have little judgment as to what they can stand, and no judgment as to what they can do under varying circumstances. It may be safely said that certain methods of approaching children should be avoided: too long an argument; nagging; undue fault finding; irritability on the part of parent or teacher; hasty resort to drastic methods of discipline. The adult in the case should always be fair, and should upon all occasions teach, and be an example of, moderation. Remember the part played in the vicious circle of affairs, when certain effort causes fatigue, which may be added to by overeating or eating, still further intensified by restless sleep or travel, only to find the child becomes more and more tired, and consequently less able to control his sundry and diverse processes. It is to be remembered that certain types of diet are stimulating, certain contacts, adults or playmates, may tend to over-excitement, and some forms of activity or amusement may so overwhelm a child as to lead to a very marked condition of fatigue, particularly if repeated.

This leads to the point of a frequent checking up of the physical condition, a careful going over of the bodily proportions, possible physical handicaps, the special senses, possible idiosyncrasies, and gives a certain amount of information as to what one's tolerance may be. Furthermore, the early recognition of the evidences of fatigue may prevent the incidence of a more serious degree of this condition and may lessen the child's opportunity to be the victim of nutritional and infectious maladies.

ULCERATIVE AND GANGRENOUS BALANITIS*

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VINCENT'S spirochete most often infects the mouth and throat but it is by no means limited to these areas. Venereal and genital infections are rather common in countries and with peoples where the conditions are such as to favor the spread of the disease. These predisposing conditions are over-crowding, uncleanliness and scanty use of soap. The disease is doubtless spread by direct contact and perhaps to a limited extent by indirect methods, as with drinking cups. As ulceromembraneous angina, it was very prevalent among the American and British soldiers during the World War and this, doubtless, because the infection is so common among the peasants with whom they came into contact and those who first became infected served to infect others.

When our soldiers arrived in the Rhineland they had plenty of time and opportunity to clean up and wash, to take frequent baths and use their tooth brushes properly and if they so desired, to avoid such intimate contact with the peasants and each other as had been necessary while in France.

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There followed a marked improvement in conditions but nevertheless until the very last, there was always a number on sick report suffering from infections with Vincent's spirochete. It was an impossible matter to get the entire command cleaned up, and meanwhile there was the usual irresponsible element continually acquiring new infections.

It is generally believed that the spirochete which is named after Vincent, its discoverer, is the cause of the injury done in the disease. Vincent made his original study on hospital gangrene and found the organisms present to be the same which are often found in the mouth and throat. There is usually with the spirochete a fusiform bacillus and there is probably some relationship between them though this is not admitted by so good an authority as Krumwiede. As has been so beautifully shown by Tunnicliffe[1] there are always three zones which can be demonstrated in a cross section of an active lesion. The deepest or advancing zone contains spirochetes but no fusiform bacilli; the intermediate zone contains spirochetes and a certain number of fusiform bacilli and the superficial or covering membrane, contains many spirochetes, fusiform bacilli and other organisms. The spirochete may also be found in the apparently normal mouth as a chronic infection, in which case it inhabits the crypts of the tonsils and the gum just beneath the border surrounding the teeth.

The spirochete is freely motile, somewhat irregular and loosely coiled. It is from 10 to 30 microns in length and about 0.5 microns in diameter and has usually from three to six turns. It grows anaerobically and produces a disagreeable odor. It stains readily with Giensa's and Wright's stains and is Gram negative. The bacilli are straight or slightly curved rods which taper at the ends to sharp or blunt points. The bacillus stains with all the common stains and is Gram positive.

In 1916[2] a report was made upon the marked spirocheticidal effect of soap solutions upon Treponema pallidum. It was found that a 0.1 per cent of the ordinary toilet soaps, when floated under the cover glass of a slide of Treponema pallidum undergoing examination, caused their immediate death and dissolution. The same effect was produced with Treponema pertenue, of yaws, which is an organism so similar to that of syphilis that it cannot be differentiated by any known method of microscopic examination or staining reaction. During the years 1921 and 1922 in the laboratory in connection with the Station Hospital in Coblenz, Germany, relatively large numbers of Vincent's infections were being examined daily and with this quantity of material available it was an easy matter to determine the effect of this same procedure upon Vincent's spirochete. This was accomplished in several ways. When soap solutions were introduced into the slide undergoing examination, the result was similar to that observed with the spirochete of syphilis and yaws, except that the spirochete of Vincent is somewhat more resistant. Mouth and throat lesions were treated by swabbing with relatively concentrated solutions of soap, and this was followed by gargles of diluted solutions. The effect was either to cause a temporary disappearance of the surface spirochetes and fusiform bacilli or to lessen their number. A series of twenty-five patients was treated entirely in this manner and all of them cleared up in only a little more than the average time required by the usual methods of treatment.[3] Genital lesions treated with soap solutions showed the same results observed in infections of the throat and gums.

It was observed that the incidence of all Vincent's infections was for the most part among those in whom it was apparent little attention was paid to personal hygiene and the cleanliness of the body. There was little of this disease among the officers and the better class of non-commissioned officers and privates. It was an obvious deduction that in a general way the incidence of these infections varied inversely with the amount of soap and tooth pastes used and their personal contact with the infected inhabitants. Most tooth pastes including those made in Germany have a small percentage of soap in them and it would appear that it is the element which is of the greatest value in the prophylaxis of mouth infections. The German physicians informed me that these infections were most common among the inhabitants who lived in close quarters and under insanitary conditions. Corbus[4] in speaking of genital infections stated that these were rare in his private practice but relatively common in his dispensary work. I think that the evidence is quite clear and convincing that soap and cleanliness and proper living serve as a means of prophylaxis against such infections.

While the term "venereal" is often used in describing genital lesions, yet I do not believe that this is true in the same percentage which exist with gonorrhoea and syphilis. I would expect a high percentage but not necessarily 100 per cent. There is no reason why the organisms might not be transferred from the mouth to the genitalia by means of the hands and if the conditions there are favorable there is no reason why they should not continue to grow and do damage. When there is a marked phimosis or redundant prepuce, this results in an ideal field for the development and growth of the spirochetes. There is bodily warmth, moisture, a moist mucous membrane and sufficient lack of oxygen for this anaerobic organism. It would appear that such conditions are at least as favorable as in the mouth but infection is less likely.

Bataille and Berdel[5] first described this disease as a clinical entity.

Corbus and Harris[6] were the first in this country to describe the infection.

The chapter by Corbus in Cabot's Urology is the most comprehensive of any I have seen. Scherber and Muller[7] reported fifty cases which they observed in Fenger's Clinic. Scherber[8] reported 81 infections seen in the same clinic during the course of four years.

Some interesting observations were reported by Brams, David and Pilot.[9] They examined 100 men but did not give data as to the length of foreskins and degree of phimosis further than to state that those having a redundant foreskin showed the greater percentage of infections. In these 100 men they found Sp. Vincenti and B. fusiformis present in 51, or 51 per cent. This is much higher than the results secured by me in Germany where these organisms are more prevalent. It is true that my examinations were made only on those having some sort of a genital lesion but it is not believed that this should make any difference in so far as a reduction is concerned. In the examination of 708 individuals having genital lesions, the spirochete of Vincent was found in the lesions of only 49 individuals. Spirochetes of various kinds were found in others but they did not in my opinion have the characteristics of Sp. Vincenti. Brams, David and Pilot found the fusiform bacillus always present with the spirochete. It was usually present in smaller numbers and appeared as a straight or slightly curved rod tapering into sharp or blunt ends. The spirochetes were often present in large numbers. In the presence of a long phimotic prepuce, there were usually many cocci and short bacilli. They also found the following organisms in the proportions stated:

Staphylococcus albus and aureus	90%
Streptococci	17%
Diphtheroid organisms	50%
B. coli	3%

The same investigators also examined 24 pregnant women and in 17 of them or 58 per cent found Sp. Vincenti and B. fusiformis present around the clitoris.

McConnell[10] reported a case of Vincent's involvement of the cervix with characteristic lesions. Robinson[11] reported a puerperal and postpuerperal infection characterized by a number of small superficial ulcers about the genitalia. Capt. Wm. D. Gill will report later upon two cases of erosive cervicitis seen in Coblenz in which the characteristic spirochetes were found. There was conducted in Coblenz, Germany a hospital for diseased prostitutes. During the period in which this hospital operated there was a total of 2,249 admissions. Dr. Kurt Roscher, the physician in charge was possessed of the necessary knowledge and experience to fit him most admirably for the position. He has stated to me in a personal communication[12] that he has never seen the characteristic ulcerative or gangrenous types of this disease in a female. Dr. Herman Feit, now of New York City, but who has had a rather broad experience in the Rhineland, has informed me that his experience is similar to that of Dr. Roscher. These women were practically all living under worse sanitary conditions than the soldiers and it was from them that the most of the venereal infections among the soldiers were contracted. It would appear that the active or acute manifestations of this disease do not often appear in or on the genitalia of the female. They may and do carry the infection but it is rarely manifested by pathological lesions.

The spirochete of Vincent is a versatile organism as it may appear under a variety of conditions. The following diseases may be caused by it: Vincent's angina, acute ulceromembraneous, gingivitis, noma, hospital gangrene, pyorrhoea alveolaris, putrid pneumonia, otitis media and acute and gangrenous balanitis. In some conditions the spirochete invades the blood stream and has been isolated therefrom.

One can do no better than adopt the definition of Corbus, which is as follows: "Erosive or gangrenous balanitis is a specific venereal disease caused by a symbiosis of a vibrio and a spirillum, with local and constitutional effects varying with the severity of the infection." The incubation period is from five to seven days. It is noticeable that the infection may be so slight as to cause but little annoyance and it is most often of this grade of severity. In such case there is only a localized destruction of the epithelium, after which there appear superficial erosions which are usually multiple. The erosions require about eighteen hours to develop. They are found in the preputial sac and most often in the sulcus coronarius and are accompanied by moderate burning and itching, and the presence of a small amount of bad smelling pus. The dorsal lymph vessels become palpable and there is always a degree of glandular enlargement. This must be borne in mind because a sore on the penis accompanied with glandular enlargement and spirochetes in the discharge is not necessarily syphilitic. In slight cases there is no marked pain and constitutional manifestations are lacking.

If there is enough phimosis to make conditions favorable the entire surface of the sulcus may be involved. It is largely a question of how badly the patient needs circumcision and once he becomes infected in this manner he needs it much more than previously. The infection may not get so far back as the sulcus and in cases where the prepuce is not adherent or there is no real phimosis, healing may take place without treatment. If the phimosis is marked, and especially if the organ has not been kept in a cleanly condition, it is probable that the disease will be evidenced by ulcerations following the erosions. These ulcers become a bright red and are surronded by a whitish membrane similar to that which first covered the erosions. Later they may assume a punched out appearance and become irregular and multiple and have a well marked red border. There is a considerable discharge of a thin odorous pus. With a severe involvement, the temperature may rise to 103 degrees and be accompanied by malaise, chills, fever and vomiting. The deeper the ulcers, the greater will be the discharge and the worse the odor. In such case there will be considerable edema manifest in the prepuce, sufficient to prevent retraction. There will be itching, burning and tenderness but not much severe pain.

In the severe type where the involvement becomes gangrenous in character, there is of course a considerable degree of venous stasis with marked exudation. This may appear within 2 or 3 days after the first erosions. As a result of this condition the phimosis naturally increases and this produces a more marked anaerobic condition which favors the growth of this anaerobic spirochete. By this time the spirochetes have invaded the deeper tissues and the defensive agencies of the body have become less able to resist and gangrene supervenes. Constitutional symptoms are present and there is a marked odor and an offensive discharge. In all cases the pus is of course contagious.

Involvement of the throat may exist as a chronic condition with exacerbation from time to time without obvious reason therefor. The same condition may exist with genital infections. It is well established that general and constitutional diseases, such as bronchitis, pneumonia, the exanthematous fevers, diabetes and nephritis predispose to acute mouth infections. While this may be true as regards acute erosive and gangrenous balanitis, the writer has never observed it.

The examinations upon which this paper is based extended over a period of about two years and were performed upon 708 hospital admissions, all of them having some lesion suspected of being venereal in character. The list shows a total of 49 acute infections with Vincent's spirochete and of this number, 10 had a coincident initial lesion of syphilis.

CLASSIFICATION OF INFECTIONS

Spirochetes found with only slight erosions	5
None of the five had a phimosis or voluminous prepuce.	
Three had venereal warts.	
Slight erosions, no ulcerations, slight discharge	4
No one of the four had what might be termed a phimosis.	
Ulcerations with a moderate amount of discharge	9
Lesions in sulcus, prepuce of moderate length	3
Lesions in sulcus, and on glans, preuce of moderate length	6
In one of the six, discharge was sufficiently marked to cause a tentative diagnosis of gonorrhoea.	
Ulcerative type with marked discharge and redundant prepuce	20
Swollen prepuce, unable to retract	15
Three with tentative diagnosis of gonorrhoea	
Prepuce could be retracted, milder in type	5
Lesions only in sulcus	1
Lesions in sulcus, on glans and internal prepuce	3
Three had also marked involvement of gums or tonsils.	
Gangrenous type	1
Observed on the first day of the beginning gangrenous process. This patient had been under treatment for syphilis and had had a moderately severe salvarsan reaction. For this reason it was thought best to attempt treatment by other measures. At the end of two days it was realized that this was not sufficient and he was given an intravenous injection of salvarsan with the result that the progress of the disease was terminated. There was a loss of a portion of the glans but otherwise no serious harm was done.	
Double infection, chancre and erosive and gangrenous balanitis	10
Moderate foreskin, induration, no characteristic balanitis	4
Moderate foreskin, induration and erosive balanitis	1
Redundant prepuce, only slight erosions in sulcus	2
Redundant prepuce, chancre and characteristic balanitis	3
In 3 of the 10, the diagnosis of syphilis was made at a later date.	
Total	49

It will be noted in the summary of the above case histories, considerable attention has been paid to the condition of the prepuce and the presence or absence of a phimosis. This is one of the most important elements in the development of a specific balanitis. In fact, there was no individual in the above list who had been circumcised and only one had a prepuce which remained posterior to the glans. This was one of those listed as very mild and who showed only very slight erosions. It is possible that this man had a recent infection and that within a few days it would have cleared up without medication of any kind. A little soap and water would certainly have been sufficient.

I am convinced that there were other soldiers who had a chronic infection which never developed acute manifestations and so were not detected. It would also seem that some of the acute infections may have dated back beyond the usual period of incubation. This is of course purely a conjecture and at this date can neither be proved nor disproved.

In arriving at a diagnosis one must consider the following: chancre, chancroid, herpes preputialis, ordinary balanitis, tuberculosis, gumma and gonorrhoea. The history of the case, the presence of the characteristic spirochete and bacillus and the type of lesions are sufficient grounds upon which to base a diagnosis with certainty. It is, however, always well to bear in mind the possibility of a mixed infection. In the absence of additional information it is an impossible task to undertake from the study of a stained slide.

the identification of the different spirochetes which may appear in this area. The difficulties are less under the dark field. Spironema buccalis resembles Spironema Vincenti so closely that such differentiation becómes impossible in the stained slide. There are also spirocheta refringens, treponema dentium and treponema mucosum, all of which may be found upon the mucous membrane of the penis. They are never present in such great numbers and are not necessarily accompanied by bacillus fusiformis, nor will the treponemata stain so readily as the spironemata. Treponema pallidum is a much finer organism with more regular and closely wrapped spirals and dones not stain so readily and takes more of a blue color while the others are inclined to be a little reddish when stained with either Wright's or Giemsa's stain. It is a difficult matter to stain the spirochete of syphilis with Wright's stain and a period of hours is required with Giemsa's and if there be few treponemata in the dark field there will probably be none in the stained slide.

The fact that a few Spironema Vincenti may happen to be present upon the surface of a lesion is not sufficient ground upon which to base a diagnosis. The sore must be well cleaned off and a smear or fluid obtained from the living tissue. It is well to remember that a chancre exudes serum. The presence of a predominating number of Spironema Vincenti indicates an infection with that organism but it does not rule out a mixed infection. It should not be hard to diagnose a typical case of erosive and gangrenous balanitis but it may be a matter of extreme difficulty to exclude the presence of syphilis. In 20 per cent of the cases reported in this paper, syphilis was also present and in 6 per cent it was found only at a later examination. One can best secure a mental picture of Vincent's spirochete through dark field examinations of characteristic throat infections.

When one has secured a mental picture of Vincent's spirochete, it becomes a quicker and easier matter to establish a diagnosis with the aid of the dark field taken in conjunction with the clinical picture and the history of the infection.

In the treatment of serious infections, the first and most important step is to make a dorsal slit and open up the infected area to the oxygen of the air. When this is once accomplished the treatment of either the erosive or ulcerative types is not ordinarily a complicated or difficult matter. A 1 per cent solution of silver nitrate applied four times daily has a salutary effect upon the lesions. A 5 per cent solution of potassium permanganate applied as hot as can be endured is also efficacious. Probably the most efficient local application is a 20 per cent solution of chromic acid which should be applied directly with a swab. It should be allowed to remain for one minute and then washed off with hydrogen peroxide. This application does not have an injurious effect upon normal tissue or membrane. The local application of 5 per cent arsphenamine in glycerine also produces good results. In fact there is on the market a preparation of glucose-arsphenamine which is well adapted for this purpose. This is, however, not good routine practice in genital infections due to the possibility of covering up an incubating initial lesion of syphilis. This same objection does not hold to its use in mouth or throat infections.

When the infection has invaded the deeper tissues and gangrene has taken place, local measures may not serve to control the process. In such cases the intravenous injection of asphenamine is advised. The effect will be quickly apparent. Two or three injections may be required but one will ordinarily suffice. Bloodgood[13] recommends highly the use of a paste of sodium perborate. This should be spread over the affected area and allowed to remain for five minutes and then washed off with warm water. I am informed by Dr. Harry Meyersburg of Brooklyn, N. Y., that in a number of severe infections of the throat which did not respond to the usual methods of treatment, he was able to secure prompt resolution through the use of the mercury vapor quartz lamp. I can see no reason why this same treatment should not be equally beneficial in the same type of infection of the genitalia.

Mild infections which are entirely superficial will yield to soap and water but reliance had better be placed upon some stronger agent. It is believed that such measures are more applicable to prophylaxis than to treatment. In a small series of superficial genital infections it was possible to demonstrate the beneficial effect of such treatment but the progress was not so rapid as with the stronger applications.

Discussion

During the last thirteen years the writer has been interested in the spirochetes, more especially those of syphilis, yaws, relapsing fever, those commonly found in the mouth and Vincent's spirochete. From the evidence available it would appear that there is a greater incident of Vincent's infections now than before the World War and it would appear probable that the returning soldiers may have had something to do with spreading this infection. With a relatively small opportunity for observation during the last three years, one case of erosive and gangrenous balanitis was seen in a soldier who had acquired it in New York City. On account of a profuse discharge coming from a phimotic prepuce, he was sent to the laboratory for confirmation of a tentative diagnosis of gonorrhoea. It was a matter of surprise to learn from those in charge of one of the large venereal clinics in New York City, that they do not have any of the infections. This is a most excellent clinic where great attention is given to detail and each patient given a close examination. This is a matter which is difficult to explain.

From a period of observation extending over two years it was apparent that both oral and genital infections of this type are far more common in Germany than in the United States and that their incidence is favored by overcrowding, uncleanliness and the scanty use of soap. Genital infections did not appear in circumcised males nor so far as I can now remember have I ever seen a throat infection in any person where the tonsils had been completely removed, nor in gums devoid of either natural or artificial teeth. Favorable conditions such as these are necessary for the spirochete to start growth upon or in the human body or in which to remain quiescent between acute attacks. This focus must be protected from the oxygen of the air and have warmth and moisture. However, where the virulence is high or the resistance low, the organism having secured such a foothold may spread by both lymphatics and contiguity to the surrounding superficial and deep structures. The spirochetes receive adequate protection through their location beneath the surface. Genital infections are not ordinarily severe except in those having a phimosis or a redundant prepuce, which favors the development of an uncleanly condition and furnishes the anaerobic condition necessary for the development of lesions in this location.

Infection of the male genitalia, as has been stated, probably comes about most aften as a result of sexual intercourse but this is not essential and for that reason erosive and gangrenous balanitis is not of necessity a venereal disease. Where an individual has a coincident chronic infection of the gums or tonsils, one would hardly be justified in formulating a diagnosis of venereal infection in the absence of a history of exposure. Where the conditions are favorable, it is not difficult to see how an infection might be acquired innocently, especially if the patient already has an infection of the mouth or throat. It is also easy to see how a person might just as readily have a chronic infection of the preputial sac as of the oral cavity, and how under favorable conditions this might flare up into an acute condition. If, on the other hand, there is neither a history nor evidence of an infection elsewhere, it would seem more probable that the infection is venereal in origin. The history of exposure is most important in any case. In those infections where there is a combination of both Treponema pallidum and Sp. Vincenti, one would be compelled to assume that it is venereal in character.

It is a difficult matter to explain the comparative rarity of such lesions in the female especially when it is obvious that a considerable portion of these infections are venereal in character. It may be that the vaginal secretions have some effect in protecting the tissues from damage. It would appear that the vagina should offer favorable conditions for the development of the disease. From all the information which was available it does not appear probable that any appreciable percentage of the infections listed was due to unnatural practices.

During the period in question the authorities were compelled to combat a continuous influx of prostitutes from several hundred miles in all directions. This was not, however, the greatest problem since these women were picked up within a short time and either confined if diseased, or otherwise, deported. Among the lower classes the standards of morality are perhaps a little below those with which we are familiar in the United States. The social and economic conditions also were such that the relatively affluent American soldier had little difficulty in securing female society not averse to complying with his wishes. As a consequence the moral standards were not very high. The soldiers who were most loose in their sexual habits were as a rule the ones whose habits of cleanliness were the most open to criticism and it became a rather difficult matter in all cases to determine the source of infection. It would seem to be beyond question that the ordinary methods of venereal prophylaxis should be equally as efficacious in this disease as with syphilis and gonorrhoea.

CONCLUSIONS

1. Infections caused by the spirochete of Vincent are far more common among the poorer classes of Europe than in the United States, but since the World War there has been an increase in the United States.
2. Erosive and gangrenous balanitis is one of the less frequent manifestations of infection with this organism.
3. Predisposing conditions are lack of cleanliness and scanty use of soap. Soap applications are sufficient in themselves to destroy the surface organisms of this disease as well as that of syphilis and yaws.
4. The disease does not appear on the genitalia of the circumcised male.
5. Vincent's spirochete requires anaerobic conditions for its development and proper growth and the formation of lesions. These exist beneath a redundant or phimotic prepuce.
6. These spirochetes may exist in the apparently normal mouth without acute manifestations of their presence. The same condition may exist beneath a redundant foreskin.
7. Erosive and gangrenous balanitis is not of necessity venereal in origin though usually so. In the presence of a chronic mouth infection and in the absence of a history, one would not be justified in considering the infection as necessarily venereal in origin.
8. The gangrenous type is comparatively rare but when present, requires immediate and strenuous treatment.

9. The standard methods of venereal prophylaxis are equally efficacious in preventing the appearance of erosive and gangrenous balanitis.

10. Vincent's spirochete along with B. fusiformis may be present upon the external female genitalia or in the vagina but rarely presents acute manifestations. The vaginal secretions may serve to protect.

11. This disease is particularly prone to attack lymphoid tissues and follows lymphatic channels.

12. From evidence furnished by pathologists as well as the effects secured from definitely spirocheticidal drugs, it seems beyond question that the spirochete is the cause of the injury accomplished in Vincent's infections. There is no evidence that the bacillus is concerned in the acute process unless through symbiosis.

13. Except in the case of an emergency it is not good practice to use arsphenamine in the treatment of genital infections.

14. The exclusion of syphilis may be more difficult and is more important than the diagnosis of erosive and gangrenous balanitis.

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TUBERCULOSIS OF THE ABDOMINAL LYMPH NODES IN EARLY LIFE*

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TUBERCULOSIS of the abdominal lymph nodes is presumably due, in the vast majority of cases, to infection with the bovine bacillus. The type of bacillus causing the infection is, however, unimportant, except as regards prevention of the disease. This must consist essentially, of course, in the elimination of tuberculous cows and the pasteurization of all milk which does not come from cows free from tuberculosis.

In this paper, I shall not discuss tuberculosis of the abdominal lymph nodes complicating tuberculous peritonitis, secondary to tuberculosis of the intestines or a part of chronic diffuse tuberculosis. I shall consider only those cases in which it is apparently the only lesion. In these cases, however, the tuberculosis of the lymph nodes is probably almost always secondary to a primary lesion of the intestine, this lesion having healed and showing no clinical signs. The condition is parallel to that in tuberculosis of the tracheobronchial lymph nodes, in which it has been shown that there is always a primary lesion in the lungs, which has healed and gives no physical signs. Cases of this type are much more common than is usually supposed. Tuberculosis of the abdominal lymph nodes is, however, much less common than tuberculosis of the tracheobronchial lymph nodes. Either the mesenteric or the retroperitoneal nodes may be involved alone or both may be affected simultaneously.

In most instances the symptoms are general and constitutional rather than local. It is relatively uncommon to have symptoms pointing directly to the digestive tract. When the mesenteric nodes are involved, they are seldom enlarged enough to interfere with absorption through the lymphatics. Tuberculosis of these nodes, however, not infrequently causes abdominal pain and discomfort. The nodes are not often enlarged enough to mechanically interfere with the passage of the intestinal contents and cause constipation. They may be, however, in rare instances. They may break down and form mesenteric or retroperitoneal abscesses.

As already stated, the symptoms of tuberculosis of the abdominal lymph nodes are, as a rule, simply those of a mild disturbance of the nutrition and general well being. The child does not seem as well as usual, is not as lively, is easily tired and is irritable. It does not get on as well at school, its appetite falls off and it does not gain or loses weight. A baby does not smile and coo as much as usual and is less active. Pallor or sallowness of the skin develops and the skin and hair are dry. The temperature is a little elevated, especially at night—sometimes continuously, sometimes intermittently. The digestion may or may not be somewhat disturbed. If it is, there is usually nothing characteristic about the symptoms. Occasionally, however, the stools may show an intolerance for fat. I have seen several such cases. This may happen when there are no palpable nodes.

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Whenever a baby or child is not thriving, does not seem well and there is no apparent cause, tuberculosis of the abdominal lymph nodes should be thought of as a possible explanation of the symptoms. If there is also a little fever, it should be considered more seriously. It must not be forgotten, however, that there are many other causes for disturbance of the nutrition and general condition, such as insufficient or improper food, lack of air and sunlight, late hours, excitement and fatigue from either physical or mental overexertion. Other obscure diseases, especially those of the fauces, nasopharynx and their adnexa, as well as pyelitis, may cause similar symptoms. If the tuberculin test is positive, no other foci of tuberculosis are found on physical examination and no evidences of enlargement of the tracheobronchial lymph nodes or of tuberculosis of the lungs are shown by the Roentgen ray, and no apparent cause for the symptoms is made out in the child's life and routine, there is a reasonable probability that the trouble is tuberculosis of the abdominal lymph nodes. Even under these conditions, however, it is possible that the positive tuberculin reaction may be due to some hidden focus elsewhere in the body. If the tuberculin test is negative after several trials, it is certain that the symptoms are not due to tuberculosis of the abdominal lymph nodes, because, this being a chronic condition, the tuberculin test is sure to be positive.

The general constitutional symptoms which have just been described, are not infrequently accompanied by pain and discomfort in the abdomen. There is nothing whatever characteristic about the abdominal pain in tuberculosis of the abdominal lymph nodes. It may be situated anywhere in the abdomen, may be dull or sharp, fairly continuous or intermittent. There is also nothing characteristic about the feelings of discomfort in the abdomen. They differ in no way from those common to all sorts of indigestion. Under the conditions defined above, however, the presence of abdominal pain and discomfort counts strongly in favor of tuberculosis of the abdominal lymph nodes.

When, with the symptoms detailed above, large lymph nodes can be felt in the abdomen, the diagnosis of tuberculosis of these nodes is almost certain. It must be remembered, however, that neither enlarged mesenteric or retroperitoneal nodes can be felt unless the abdominal wall is relaxed. Enlarged tuberculous mesenteric lymph nodes are easier to feel than enlarged retroperitoneal nodes. There may be only two or three or many. They may vary in size from that of a small pea or bean to that of an English walnut. They feel elastic or hard, are usually regular in outline, are almost always somewhat movable and are seldom tender. They may be felt anywhere in the abdomen. Enlarged retroperitoneal nodes are most often felt in the right iliac fossa or in the median line in the neighborhood of the navel. They are, of course, always deep down. It is difficult to feel them unless they are at least as large as marbles. They are usually missed unless there are a number together. They are not movable and are more often tender than are mesenteric nodes. They may sometimes be felt through the rectum. The Roentgen ray does not show anything definite, when the mesenteric or retroperitoneal lymph nodes are involved, unless there is calcification. It must never be forgotten that enlargement of the mesenteric and retroperitoneal lymph nodes does not of itself mean tuberculosis, because the enlargement may be due to other causes, such as simple hyperplasia from inflammation of the intestines and, in rare instances, malignant disease, leukemia, or pseudoleukemia. There is nothing about the feel of the glands which is in any way different, when the enlargement is due to other causes. Masses of feces in the intestines may also be mistaken for enlarged mesenteric nodes. Masses of feces are usually more movable, larger and less regular in outline than enlarged nodes. They can sometimes be changed in shape by pressure, while enlarged nodes cannot. Masses of feces disappear after the bowels are thoroughly cleaned out, while enlarged nodes usually become more evident.

In other instances, the symptoms referable to the digestive tract may be more marked. Attacks of vomiting are not uncommon and constipation may be quite troublesome. Sometimes it is chronic, sometimes intermittent. In these cases, the tuberculous process is usually confined to, or, at any rate, more marked in, the retroperitoneal than the mesenteric nodes. In these cases a diagnosis of some congenital malformation of the intestine, adhesions from disease of the appendix or chronic appendicitis is often made. These diagnoses are not infrequently corroborated by the Roentgenologists, who have, in my own experience, several times described in detail what type of malformation was present or where adhesions were located. In these cases, however, operation has shown that none of these conditions were present and that the whole difficulty was tuberculosis of the retroperitoneal and sometimes of the mesenteric lymph nodes. In other instances, in which similar diagnoses were made, where no operation was done, the children have recovered and Roentgenographs taken years later have shown calcification of the abdominal lymph nodes. It is interesting that in none of these cases have the Roentgenographs shown any evidences of enlargement of the abdominal lymph nodes.

In other instances, tuberculosis of the retroperitoneal nodes is associated with pain and the nodes are definitely tender on palpation. These symptoms may come on acutely and may be associated with other symptoms of disturbance of the digestive tract and with a rise in temperature. The first time that this happens, the condition is very likely to be mistaken for acute appendicitis; when there is a history of similar attacks in the past, for recurrent appendicitis. The diagnosis is not very difficult, if it is known that the child has tuberculosis of these nodes. If it is not known, the diagnosis is often very difficult. When the symptoms are acute, there is more likely to be a polynuclear leucocytosis in appendicitis than in tuberculous adenitis. The temperature is likely to be higher in appendicitis and the child to appear sicker. The tenderness may be the same in both. There is localized spasm in both. To the skilled hand, however, there is a slight difference in the spasm in the two conditions. It seems as if it develops on less pressure in appendicitis than in tuberculosis of the retroperitoneal nodes. Rectal examination is not of much assistance, as there is almost certain to be tenderness, and there may be a palpable tumor, in both conditions. The tuberculin test is not of much assistance in these cases with acute symptoms, because the diagnosis and the decision as to an operation must be made at once. I have seen a number of cases of this type in which the diagnosis of appendicitis, in several of which I concurred, was made and operation was performed. I have seen a number of others in which operation was considered, but put off, and in which, after the acute symptoms had subsided, enlargement of the retroperitoneal nodes was found and a positive tuberculin test obtained. In doubtful cases, it is, of course, wiser to operate than not, because it does no harm to operate in tuberculosis of the retroperitoneal lymph nodes and the operation reveals a condition which is not suspected and, therefore, would not be properly treated, while, if the real condition is appendicitis, and no operation is done, death is likely to occur as the result of delay.

In rare instances tuberculous mesenteric nodes may break down and form an abscess in the mesentery. In one case of this sort, which I saw, the tumor was about the size and shape of an egg-plant. There is, of course, nothing about the physical signs of a tuberculous abscess of the mesentery to distinguish it from other tumors of the mesentery containing fluid. In general, however, the disturbance of nutrition is likely to be greater with a tuberculous abscess than with cysts due to other causes. A tuberculous abscess may also be confused with an ovarian cyst. As a rule, however, an abscess of the mesentery is nearer the median line and higher in the abdomen than an ovarian cyst. Rectal examination may also help in determining the origin of the tumor. A mass of tuberculous retroperitoneal nodes may also break down and form an abscess, which may be mistaken for an appendicial, perinephritic or psoas abscess. The onset is likely to be much more acute with an appendicial or perinephritic abscess than with an abscess due to tuberculous retroperitoneal nodes. With a psoas abscess, there are always evidences of disease of the spine both on physical examination and with the Roentgen ray.

The prognosis of tuberculosis of the abdominal lymph nodes is, on the whole, very good. It is probable that, in the vast majority of cases, recovery takes place without any suspicion of the condition having arisen. In many of these cases, it is also probable that there never have been any symptoms. In others, there may have been a period of impaired health or nutrition in which the disturbance was attributed to some other cause, like indigestion, overfatigue, overwork or rapid growth. The prognosis is also very good with proper care in those cases in which the true condition is suspected because of the general disturbance of nutrition and a positive tuberculin test is obtained, but in which no enlarged glands are felt. I have never had a case of this sort which did not recover. Even when the enlarged nodes are palpable, most cases recover under careful treatment and many without any special treatment. The prognosis, however, is not as good in infancy as in childhood. The only cases which I have had die, in private practice, have been infants. Recovery in these cases, when it occurs, is complete. I have a number of patients, in whom the diagnosis was proved by operation, who are alive and well after periods varying from ten to twenty years. Many of these children are unusually vigorous and robust. Several of them have become well known athletes. In many instances, the enlargement of the nodes entirely disappears. That is, they are no longer palpable. This has happened in a number of my cases in which the nodes were proved at operation to be tuberculous. In one instance, in which an operation for acute appendicitis was performed years after a previous operation on a mistaken diagnosis, the enlarged nodes were no longer present. In other instances the nodes become calcified. I have one case in which a node the size of an English walnut has become as hard as a rock and is palpable in the same position as it was sixteen years ago. In other cases the calcification has been proven by the Roentgen ray and by operations for other conditions in after years. In rare instances the tuberculous process may extend to the peritoneum or a broken down node may be the source of infection in acute miliary or chronic diffuse tuberculosis. When the process extends to the peritoneum the prognosis is that of tuberculous peritonitis. Extension to the peritoneum or a general infection from the breaking down of a node occurs far more often in infancy than later. In the very rare instances in which a retroperitoneal or mesenteric abscess develops, the prognosis is the same as in other tuberculous abscesses which can be opened and drained.

The treatment of tuberculosis of the abdominal lymph nodes is, of course, essentially that of tuberculosis in general. Infection must be guarded against. Babies and children must be kept away from tuberculous adults. All milk which does not come from cows free from tuberculosis should be pasteurized or boiled. Babies and children with tuberculosis of the abdominal lymph nodes should be kept off their feet, preferably in bed, as long as the temperature is above normal. If the temperature rises, they should be put to bed. They must be guarded against overfatigue. No matter what it is they do, whether work or play, if it tires them or puts up the temperature, it must be stopped. It is impossible to overemphasize the importance of rest and the avoidance of overexertion. They should have all the outdoor air possible. They should also have all the sunlight that is possible. The Rollier treatment is especially useful in cases of this sort. If they cannot have the Rollier treatment, either completely or in a modified form, it is advisable to use the ultraviolet rays from either the mercury vapor or carbon arc lamps. It must be remembered, however, that it is possible to use these lamps too vigorously and to do more harm than good. It is also important not to trust too much to these lamps and to forget how much recovery is aided by rest, air, food and sunlight. The tendency at present is to forget how much is accomplished with these measures and to give the ultraviolet rays emitted by these lamps too much credit for any improvement which occurs. There is also a tendency to attribute too much of the benefits derived from the Rollier treatment to the ultraviolet rays present in sunlight. It is probable that they are of no more importance than some of the other rays or than the stimulating action of the wind. Food should be forced. There are no special indications as to the kind of diet to be used in this type of tuberculosis. It must be remembered, however, that occasionally there is interference with the absorption of fat, when the mesenteric nodes are involved. The stools should always be examined, therefore, to determine whether fat is being absorbed or not. If it is not, the fat in the food should be cut down. I have had no personal experience with tuberculin in the treatment of these cases. What I have seen of its use in the hands of others leads me to believe, however, that it very seldom does any good and, not infrequently, does real harm. It is far wiser, it seems to me, to trust to out-door air, sunlight, food and good care than to tuberculin. Removal of the enlarged lymph nodes is inadvisable, unless they are causing pressure on the intestines and interference with the passage of the intestinal contents. If abscesses form, they should, of course, be opened and drained.

SOME PROGNOSTIC VALUES IN THE MEASUREMENT OF INTELLIGENCE*

By IRA S. WILE, M.D., NEW YORK, N. Y.

THE determination that a child has pneumonia or typhoid fever carries with it a prognostic idea of the relative fatality of these two diseases. Inherent in all diagnoses are certain prognostic values. The measurement of intelligence also possesses prognostic as well as diagnostic import.

The measurement of intelligence is usually stated in terms of an Intelligence Quotient, which represents the ratio between the mental age of an individual as compared with his actual or chronological age. It constitutes, therefore, an index of inherent cerebral power. No measurement of intelligence plumbs more than a fraction of mental capacity, but in-so-far as it serves to give some idea concerning the general intellectual capacity of a child, it possesses definite values.

Intelligence quotients are essentially diagnostic instruments. In most instances they appear to be constant and reasonably unvarying thru life. On the other hand the intelligence quotients may vary under conditions that affect its values. The shifting values are conducive to more definite diagnosis and also offer some prognostic information. Diagnostic methods are not to be regarded as absolutisms. They yield information that requires interpretation. The intelligence quotient is a helpful guide as are other clinical tests or measures. The presence of a positive Von Pirquet is of less value at the age of seven years than a negative reaction. The positive Shick reaction does not indicate that a child must suffer from diphtheria but merely that he is susceptible to it. Typhoid fever may be present many days before a positive Widal reaction can be secured. The X-ray plate is only a series of shadows whose meaning depends upon the interpretation and the skill and background of the interpreter. Similarly, intelligence quotients are to be regarded as facts to be interpreted as part of a general situation.

Mental measures, in a sense, utilize the light of the brain to find its own shadows. If there be little light there will be little shadow. Every intelligence quotient is an index of at least four things,—what a child can do at a definite age—what he cannot do—what he actually has done—and what he has failed to do. Bound up in the actual measurement is evidence of general intelligence potentials together with evidence of the utilization of the inherent powers thru some degree of education and training. For the most part, however, the intelligence quotient represents the capacity to meet and solve new problems and situations. At the same time, the intelligence quotient is important prognostically because it also contains suggestions as to what children cannot do; and this possibly is as important as a knowledge concerning what they are able to do.

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In the analysis of mental processes it is important to recognize not merely the intelligence quotient as a comparative index of cerebral endowment, but to thoroughly understand the factors entering into its calculation. It is important to understand the mode of determining the mental age and most especially to grasp the nature and meaning of the various tests entering into the methods of establishing it. Particularly for purposes of prognosis is it necessary to study the various elements entering into the estimation of the mental age and the intelligence quotient rather than to fasten upon the intelligence quotient itself as an isolated absolute fact.

Just as repeated temperature determinations are of value in judging the outcome of an acute infection so reasonably frequent repetitions of intelligence tests are serviceable in giving prognostic information. The repetition of tests at intervals of six months or one year and the utilization of various types of intelligence tests are exceedingly helpful in deriving the maximum prognostic worth of such procedures. It is apparent that there is need for some variety of tests in order to meet the various situations peculiar to individual children. It is obvious, for example, that the same types of tests are not serviceable for blind or sighted children or for those afflicted with disabilities in hearing. It is essential, therefore, to have familiarity with tests involving language and the non-verbal performance tests.

Children's efforts in meeting the conditions of intelligence tests provide an opportunity for manifesting attitudes of behavior. Intellectual reactions are not identical in the same individual during periods of health and illness, during hours of mental activity and fatigue, under conditions of high emotionality and calmness. The variations in the internal urges of individual children are, in a sense, reflected to some extent in their mode of response to intelligence tests. It is because the actual achievement of scores on intelligence tests is dependent upon inherent powers as modified by reactions to living that prognostic values are obtainable.

Prognoses from intelligence tests give no indication concerning length of life or susceptibility to disease. They are fraught with considerable significance, however, in connection with various physical, mental and moral situations which are definitely related to the possibilities of social adjustment, including the potentials for vocational satisfaction.

It is generally recognized that the intelligence tests possess diagnostic and prognostic value in determining mental conditions such as mental deficiency. It is insufficient, however, to regard the determination of an intelligence quotient as merely diagnostic because the relative intellectual level offers numerous prophetic suggestions concerning the functional level of the individual. It is highly necessary from the standpoint of communal and personal service to know more or less exactly the mental level of individual children. More particularly is it requisite to ascertain their greatest strength and weakness as the basis of formulating a system of training that will bring about the greatest development of their intelectual resources. In this sense, the intelligence tests are prognostic of the economic and social levels likely to be assumed. This is particularly bound up in the broad differential prognoses that are bound up in diagnosticating children as idiots, imbeciles, or morons. It is, however, equally important to realize that children of normal mentality have certain reasonable limitations in their powers of educational growth and development incidental to their inherent intelligence. A dull normal child, for example, with an intelligence quotient of 85, whose parents are seeking to make of him an engineer, a school teacher, a lawyer or an executive can be saved much difficulty and disappointment because the intelligence quotient indicates his incapacity to receive the training necessary for such vocational ends. To know what one can become is to learn one's own limitations; and in general terms the prognostic worth of knowing what one cannot do is as important as knowing generally several fields in which one may succeed.

Only a comparatively small proportion of mental deficiency is due to hereditary causes. The largest proportion of our mental incompetents have arisen from natal and post-natal causes. It is all the more important, therefore, to ascertain the mental levels of children whose condition is due to accident or illness, in order to appreciate their possibilities under special forms of individualized education.

Emotional differences and conflicts may profoundly effect intellectual activity and numerous fluctuations of the I.Q. attest the disturbances entering into mental function. If, therefore, on repeated examinations one finds shifting values of the I.Q., it is obvious that one ascertains directly an effect of the mental unrest. An I.Q. in the same child may vary markedly at different times. For example, a girl with marked mental conflicts on several occasions presented intelligence quotients of 110, 135, 120, 115 and 130. It is evident that the highest I.Q. represents the truth concerning her mentality and that the lower values suggest interferences with mental function. The stabilizing, therefore, of the intelligence quotient at its maximum was indicative of a cessation of the mental disturbance. Numerous incidents might be cited to illustrate that the stabilizing of the intelligence quotient is strongly suggestive of a release from emotional conflict.

Constantly lowering intelligence quotients upon repeated observations is of serious import as an indication of mental deterioration. This is particularly important in connection with epilepsy, encephalitis, meningitis, primary or secondary, and after traumatic injuries of the head.

In the purely physical fields intelligence measurements are of considerable value. They may indicate the cessation of deterioration, an improvement in the basic physical condition or the value of medication or training. For example, a cretin, 6-4/12 years old, who has been taking thyroid substance from the age of 3 months was found to have an I.Q. of 45. This indicates the inadequacy of the medication and the failure of cerebral development more definitely than one could determine merely by observation of the child's particular physical difficulties. In sharp contrast for prognosis, for example, one may consider a 13 year cretin with an I.Q. of 83, which places him in the category of children with slow but reasonably normal type of mental endowment, and considerably above the plane of mental deficiency. Facially, there is evidence that his cretinism has not been fully overcome. The prognosis for this boy, however, is distinctly favorable in view of the high intelligence quotient for his particular type of disease.

In congenital lues, the effect of the anti-luetic medication is important in terms of the possible intellectual development of the child. A boy 8-8/12 years old, revealed an intelligence quotient of 65, and there was a serious question concerning his educability. There had been practically no anti-luetic treatment. At the age of 9-6/12 years his intelligence quotient had risen to 77 and at 10-5/12 years to 80.8, and there is every indication of the improvement of his intellectual status as a result of vigorous anti-luetic treatment despite the fact that his Wasserman test has not been reduced below 2 plus. The prognosis now is definitely favorable with the possibility of higher mental attainment on the basis of more successful therapeusis. It is evident that in congenital lues at least the intelligence quotient gives some insight as to the successful influence of the arsenical and mercurial medicaments.

A child at the age of 5-5/12 years presented an intelligence quotient of 74, which is suggestive of a borderline deficiency. His fundamental condtion was rachitis with moderate hydrocephalus or an encephalitis, or a traumatic process arising at or soon after birth. His physical development was fairly adequate and he was given definite educational training and direction. At the age of 6-4/12 years he manifested an intelligence quotient of 81 which is highly suggestive of the benefit of specialized training and led to a more favorable prognosis concerning his ultimate intellectual capacity and this judgement was further justified by finding his intelligence quotient to be 86 at the age of 8-3/12 years. The change in the mental potentials from 74 to 86 within 2½ years defined his gain in intellectual power. Inasmuch as his intelligence quotient is still rising one cannot state that his cerebral potentials have actually been determined. At the present time, however, one is fairly justified in prognosticating normality even though of a dull type. This is far more encouraging than to dwell upon the picture of possible mental deficiency as was suggested by the first mental test.

Another moral may be injected at this time; that irrevocable decisions as to children's mentality should not be founded upon a single intelligence measurement, particularly in children presenting physical phenomena as part of the general picture. To stigmatize a child as mentally deficient without a warranting basis is harsh and unjust. Adequate observation with retesting in many instances saves some children from being penalized by absolute prognostications as to deficiency on the basis of a single intelligence quotient.

The most important prognostic factor in spastic paralysis probably is the state of the mentality. The production of mental deficiency by reason of intracranial damage is the most dire result of the cerebral palsies, natal or post-natal in origin. All too frequently little effort is made to secure early training of the victims of birth palsies, and at first testing the intelligence quotient may be found exceedingly low. Under educational direction an increase of the intelligence quotient may be noted and as long as there is progress notable in a raised intelligence quotient one may feel justified in continuing a favorable outlook. As soon as the intelligence quotient reaches its limit and there is no further advance one can be certain that the full extent of the intellectual potentials has been achieved. There arises a sort of plateau of mental development after which the advancing years of the child tend to reduce his intelligence quotient. This fact must be borne in mind because a child may, for a period of time, appear to be practically normal intellectually, and then after having reached *his* intellectual limit he becomes relatively outclassed by comparison with the further mental development of other children of his own age and not thus handicapped. For example, a boy with spastic paraplegia, 7-4/12 years of age revealed a mental age of 4-4/12 years, giving him an intelligence quotient of 59. This was highly suggestive of a middle grade moron. A prognosis based upon this interpretation would have been distinctly hazardous as may be judged by the fact that, at the age of 8 years, he revealed a mental age of 5-10/12 years, giving him an intelligence quotient of 73, placing him in the group of children who are regarded as borderline mental defectives. At the age of 9 years he had a mental age of 6-10/12 years with an intelligence quotient of 76. The fact that this boy's intelligence quotient is still rising indicates that he has not yet achieved the maximum development of his cerebral potentials, but in all probability has been taken out of the mentally deficient group.

A girl who suffered a hemiplegia as a result of an embolism following a blood transfusion, at the age of 9-10/12 years revealed a mental age of 8-4/12 years, giving her an intelligence quotient of 85, placing her among the category of children apparently below normal. This child previously has been bright and capable, and the mere statement of her intelligence quotient gives no picture of the degree of brain injury that she had suffered. At the age of 10-9/12 years she evidenced a mental age of 10-2/12 years, with an intelligence quotient of 94.5. This marked rise in her intelligence gave a better indication of her growth and a further picture of her general improvement. For a period of time this represented her actual growth and development. Her mental age at 10-9/12 years almost reached its completion. Her mental age finally attained 10-7/12 years and this continued with practically no progress. Her stationary mental age with increasing chronological age brought about a reduction of her intelligence quotient so that it actually became lower than it was at the time of the original testing, five years previously. With a chronological age of 14 years and a mental age of 10-7/12 years she had a consequent intelligence quotient of only 76. This illustrates the necessity for considerable caution in utilizing the intelligence quotient for prognostic purposes. The relative development of normal children represents many problems but these are markedly intensified when one is dealing with severe pathological processes. At the same time the need for repeated measurements of intellectual power is emphasized by such variations as I have indicated.

After encephalitis one often notes a marked decrease of the intelligence quotient, which is entirely unrelated to the duration of the attack. It is impossible to indicate the entire mental power in terms of the intelligence quotient. All too frequently the emotional disturbances incident to the disease hamper attention, interfere with normal function and are responsible for a lowering of the intelligence quotient. There is little relation between the intelligence quotient and the curability of the child. The personality alterations which may ensue as a result of the encephalitis process are of more profound importance than the intellectual capacity. A girl, for example, with an intelligence quotient of 103, representing intellectual normality, evidenced a very marked loss of control over her sexual inhibitions. Her emotions and her fantasies precluded marked activity in study and tho she had a normal intelligence her school development was practically negligible. Numerous cases might be cited to indicate that the intelligence quotient possesses comparatively little value in prognosticating the final outcome of encephalitis insofar as behavior or personality is concerned. There is a gradual raising of the intelligence quotient as the emotional elements subside and as the sub-acute inflammatory conditions pass away. More significance lies possibly in the spread of the elements entering into the mental age than in the intelligence quotient itself. But this need not be discussed at this time. It may be said, however, that the spread and distribution of the psychological powers in encephalitis frequently is similar to such changes as are found in chorea, hysteria and occasionally epilepsy.

The intelligence tests usually reveal an arrested mental post-encephalitic development and thus far in my experience they appear to show more marked effects in the presence of the Parkinsonian syndrome. A rise in the intelligence quotient during convalescence from this disease is highly suggestive of general improvement.

It is noteworthy that in chorea, even tho the physical state may appear to have cleared, often the psychical influences may still be detected through the determination of the intelligence quotient. A stabilized intelligence quotient is an excellent indication of the adequacy of the cure of chorea.

Ordinary goitre of the adolescent type or even the early stages of endemic goitre appear to reflect very little change in the intelligence quotient. Exophthalmic goitre shows an irregularity in the intelligence quotient largely due to difficulties in attention, excitability and other emotional components. Goitre surveys indicate comparatively little difference between the intelligence levels of children showing mild goitres and those whose thyroid glands are not enlarged.

The presence of hookworm infection is marked by a lowered intelligence quotient. The improvement in the general physical condition as the result of therapeusis is manifested by the improved intellectual power as evidenced in the raising of the intelligence quotient. Intelligence tests may serve as an aid to the microscope in determining the prognosis for children who have had the hookworm infection.

Intelligence tests are serviceable following contagious diseases, and not only when meningitis has been a sequela. After scarlet fever, for example, when there may be some impairment in hearing or vision, the physical examination should reveal the difficulty. At times, however, the child is first seen after his failure in school work and then the intelligence tests may be very important. Recently, a 7-6/12 year old boy was seen because it was feared that he was mentally deficient. With a chronolgical age of 7-6/12 years he revealed a mental age of 6-11/12 years, giving him an intelligence quotient of 92, which indicated normal average mental ability. It was patent that the child was not mentally deficient and the monotony of his voice suggested impairment of hearing. Further examination revealed the loss of approximately 40 per cent in each ear. The cause of his aural difficulty had been otitis media following a contagious disease. The entire prognosis of this child's future was altered by a direct knowledge of his normal intellectual function, even tho special training in lip reading will be requisite because of his impaired hearing.

I might enumerate many other conditions in which mental measurement is of service, but I am concerned merely with a general presentation of the value of this procedure to pediatrists. Intelligence tests are of service in relation to problems of delinquency. In many instances the lower intelligence quotient is found in delinquency of the less serious type. Possibly there are fewer children with superior intelligence quotients among delinquents as compared with the general population because a more highly intelligent group is more successful in escaping capture. The prognosis concerning the reform of delinquents, however, is not markedly altered by a knowledge of their intelligence quotients. A low intelligence test does not adequately explain all forms of misbehavior as truancy, theft, lying and petty crimes. Maladjustments as a whole are more responsible. Mental tests in no wise are to be regarded as prognostic of the after success of delinquents subject to so-called reform methods.

The pediatrician will find considerable value in mental measurements for prognosticating the intellectual development of the children under their care, and for securing the data most necessary for providing an adequate school adjustment. Under no circumstances, however, are mental measurements to be regarded as fetishes. They are not objects of adoration, but instrumentalities to be employed. Properly used they afford valuable knowledge concerning one phase of juvenile activity. The intelligence test is a measure of intellectual potentials and of nothing else. To the extent that cerebral function is conditioned by bodily ailments there will be some evidence of the effect of disease upon the ability to learn, recall and recreate. There is much need for careful study of the relation of the intelligence quotient to various acute diseases so as to take out of the realm of theory and guess many influences which can be more or less accurately determined. It is to stimulate a greater interest in this medico psychological relationship that I stress the value of intelligence testing in prognosis.

THE INCOMPLETELY DILATED CERVIX*

By PAUL T. HARPER, M.D., ALBANY, N. Y.

THE discussion has to do with cases incompletely dilated when the necessity for active treatment arises. In other words, cases considered are those wherein the patient is in a clinical second stage with frequent, prolonged and variably propulsive contractions or those, with internal os as yet unobliterated, wherein contractions are frequent, prolonged and unusually painful.

In either event active treatment is demanded in the interests of the mother or the child, or both. Late inertia with the probability of undue postpartum blood-loss is the danger confronting the mother; while intra-uterine asphyxia from interference with the utero-placental circulation is the foetal hazard attendant upon long-continued, strong contractile efforts.

Cases wherein incomplete dilatation is due to slow although uneventful labor or to secondary inertia are excluded. Uterine under-action characterizes them; while in those under discussion *uterine over-action* is the outstanding feature.

Incomplete dilatation met in *active* labor is due to one of two causes: *first,* conditions mechanically interfering with progressive dilatation and, *second,* inherent rigidity.

Since 'rigidity' is so familiar a term, failure in dilatation due to structual abnormalities will be considered first. Among them are:

(a) *Muscle Fibres Replaced by Conective Tissue.* But this characteristic would be shared to some extent by the rest of the uterine muscle and the whole structure would become impaired as a working organ. This is doubtless the important factor in some cases of inertia manifest from the beginning of labor. But here it is evident that the difficulty is not due primarily to the fibrous cervix.

(b) *Fibrous Tissue Limited to the Cervix.* Tissue of the kind, the result of chronic inflammation or of injury, would decrease the elasticity of the cervix; and it is doubtless a *factor* in poor dilatation. However, its importance is not great because practically *all 'rigid'* cervices *'relax'* when appropriate treatment is applied.

(c) *Malignancy.* This might impair dilatability. But its occurence is so rare that it is at best an unimportant factor.

(d) *Scar Tissue.* This would seem to be an adequate cause for failure in dilatation; but the process is found to proceed uneventfully even where earlier high circular amputation has been done.

(e) *Lower Segment Adhesions.* This abnormality, the result of a proliferative low endome-

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tritis or endocervicitis, invariably retards dilatation. Failure here is purely mechanical, being due to interference with progressive thinning-out of the lower segment and its upward advance over the presenting-part *rather than* to any 'firmness' that the cervix might present to the examining finger.

From what has preceded it would seem that, where 'rigidity' is met, the abnormality is more apparent than real, and that practically all cervices may be expected to dilate uneventfully unless there are other reasons for failure.

In the overwhelming majority of instances, incomplete dilatation is due to mechanical interference occasioned by one or the other of two groups of causes that are either uterine or pelvic in origin.

(A) *Uterine Causes of Incomplete Dilatation.*

First to be considered is General Uterine Retraction. This is a state wherein the uterine musculature applies itself more or less intimately to the furrows and depressions of the foetal outline. Presume the state to be more or less persistent: and it is at once apparent that progressive thinning-out of the lower segment and its upward advance over the presenting-part are interfered with and that the cervix fails to undergo progressive dilatation. The state 'persists' when uterine muscle tone is maintained; the cervix and lower segment maintain the same or even more tone; and the cervix *feels* firm, or 'rigid.'

It is characteristic of the lower segment to acquire 'tone' and to maintain it more or less indefinitely. This is so constant *after* delivery that post-partum lower segment retraction is physiological. The examining finger introduced beyond the internal os and well into the uterine cavity invariably meets the thickened lower segment and the Retraction Ring (marking its upper limit) if the post-partum uterus is satisfactory retracted.

But let retraction, even to a far less degree, be set up *before* the escape of the child; and an obstacle not only to progressive dilatation but also to actual delivery of the child is apparent at once. General uterine retraction is a common cause of incomplete dilatation.

But *premature* retraction of the lower segment is highly improbable unless two conditions obtain: *first,* escape of the liquor amnii (*allowing* the musculature to fit into the depressions and furrows of the foetal outline) and, *second,* frequent and strong contractions (supplying the *active force* that makes the musculature so apply itself).

In malpresentation and malposition, where lower segment retraction and 'rigid' cervix are common, the membranes frequently rupture prematurely; while, with the escape of the fluid, increase in frequency and intensity of the contractions is the rule. Additional causes of lower segment retraction appear in the 'irritation' occasioned by certain oxytocics and especially by measures employed in inducing labor or aiding dilatation.

The lower segment invariably manifests tone after the administration of pituitary extract; and so pronounced is its effect that its routine third-stage use may be followed by so marked retraction that the spontaneously-separated placenta has to be manually extracted through the overactive lower segment and the Retraction Ring. This is especially true where the uterus, earlier in labor, has shown itself to be 'irritable', in that contractions have been atypical as to frequency, duration and the amount of 'pain' occasioned.

The bougie and the hydrostatic dilator not infrequently produce contractile efforts that *appear* to be highly efficient but that are wholly disappointing as far as effecting progressive dilatation is concerned. The cervix should dilate but does not; and lower segment retraction is presented as the probable explanation.

Role of Bandl's Ring as a uterine cause of incomplete dilatation demands attention. Pathological Rings are of two kinds. The Ring that 'rises' because of nature's efforts at expelling the child from a true tonic, or 'capped', uterus; and the Ring that *does not* and cannot *'rise'* because of its firm grasp upon the child's body in relation with it. In the latter instance, dystocia is uterine, and the Ring is the primary (uterine) cause of obstruction. It is with Rings of this type that the discussion is concerned.

The Ring appears in tonic *isolated* contraction in the absence of tonicity of the upper segment and retraction of the lower; and to it the term Contraction Ring is appropriately applied. Or the Ring becomes prominent and maintains persistent tone as a part of general uterine retraction. The Ring under these conditions may be designated as the Retraction Ring.

In either case, firm grasp of the Ring on the child's body makes it impossible for it to *rise.* By the same token it is impossible for the lower segment to be drawn further and further upward, and for the cervix to undergo progressive dilatation. Accordingly, *dilatation ceases when grasp of the Ring becomes firm;* and there is *no advance* in dilatation until the Ring disappears.

Unless there is associated lower segment retraction, the incompletely dilated cervix in Ring dystocia does not feel 'rigid'.

(B) *Pelvic Causes of Incomplete Dilatation.*

Again the difficulty is mechanical. There is disproportion, due to the fact that pelvic measurements are below normal or to the fact that the child is *relatively* large for the particular pervis.

Incomplete dilatation met in cases of the kind appears relatively late in labor, commonly during the second stage, at a time when frequent and strong contractions have produced sufficient moulding and descent for the lower segment to be caught and held between the presenting-part and the bony pelvis. Force 'holding' the cervix is stronger than that 'pulling' it up, and dilatation ceases.

Passive congestion is the inevitable consequence of pressure on the cervix, and the parts soon become oedematous. If contractile efforts are strong enough, the cervix becomes markedly thickened; and, with conditions unrelieved, it is only a matter of time until the incompletely-dilated cervix becomes "incarcerated." Spontaneous dilatation is out of the question; expectancy promises little if any relief; and treatment is active.

The cervix in cases of the kind is usually soft: it feel "rigid" only where lower segment retraction is associated. But since malpresentation and malposition may account for the disproportion in the particular case, the possibility of associated lower segment retraction must be constantly borne in mind.

Diagnosis. The *cause* of incomplete dilatation must be determined before treatment of the apparent lack of advance may be considered. This is vitally important. To illustrate: with incomplete dilatation due to a true tonic Bandl's Ring, complete manual dilatation of the cervix might be simple; but spontaneous advance thereafter would be out of the question and even instrumental advance could not be effected unless excessive tractile force (enough to overcome the firm grasp of the Ring) were employed.

On the other hand, with incomplete dilatation due to moderate pelvic disproportion and cervical oedema, the patient might deliver herself spontaneously following complete artificial dilatation. At any rate, there is no additional cause of dystocia present, and extraction would be accomplished uneventfully.

Symptoms and Signs. Retraction and Ring dystocia are commonly *late-first-stage* complications; and they are almost always accompanied by atypical contractions.

In *retraction,* the contractions are prolonged; and there is little foetal movement apparent because of close approximation of the uterine walls. Especially significant is the disappearance of pain 'low down in back' indicating progressive dilatation, and the appearance in its place of more or less continuous pain 'low down in front'.

The abdominal signs of general uterine retraction are: persistence of 'tone' to the entire uterine musculature in the intervals between contractions, variable tenderness low down in front, and prominence of the irregularities of the foetal outline.

The signs referable to the cervix are as follows: its edge is thickened; it is in intimate contact with the presenting-part because the membranes have ruptured or, if intact, because the fluid is scant; and simple attempts at dilatation meet with marked resistance. The peculiar 'feel' is due to a combination of slight oedema (caused by passive congestion that results from the tight grasp of the lower segment) and muscle-tone that the cervix shares with the rest of the uterus.

In *Ring dystocia,* symptoms are not at all constant. Contractions not infrequently *cease* when the Ring sets itself up in advance of the presenting-part; while it is not unusual for them to become markedly propulsive, and for the fundus to rise as it does during a physiological second-stage contraction, as soon as a Ring has set itself up *behind* the presenting-part.

The only dependable signs of Ring dystocia are those elicited as a result of exploration of the lower segment and palpation of the region of the Ring for evidence of tonicity. An anaesthetic is required.

As the upper portion of the lower segment is reached, the examining fingers are directed sharply toward the uterine mid-line by the lower surface of the Ring. The latter completely encircles the interior of the uterus or it stands out as a prominent crescentic ledge as all or only a part of the circular uterine muscle fibres are involved. The edge of the Ring is sharp and unusually firm when in tonic isolated contraction; and it is rounded, less prominent and less firm when the Ring is a part of general uterine retraction. The inside diameter of the Ring and its firmness determine the extent to which it is obstructive.

For reasons that are apparent, *signs referable to the cervix even in grave Ring dystocia may be negative.*

Incomplete dilatation due to *disproportion* is as a rule a second-stage complication. Symptoms are characteristic, while signs are readily elicited. More often than not, contractions are non-propulsive or, if propulsive, they are insufficiently so. They occur at frequent intervals and they are prolonged; but, with them, the patient bears down ineffectually or she is wholly unable to co-operate as she should. This may be interpreted as nature's effort at conserving the store of uterine muscle energy: late inertia and poor post-partum hemostasis are guarded against by rendering her 'unable' to exhaust her store of uterine-muscle energy through long-continued and ineffectual efforts at 'bearing down'.

A patient in an anatomical second stage bears down whether she wants to or not; while, with a definite obstacle to advance, her efforts are unsatisfactory regardless of her willingness to cooperate.

Signs referable to the cervix are readily elicited. It is in advance of the broad diameter of the presenting-part; rim of the cervix is thickened; it is soft; and it bleeds readily even when only moderately oedematous. It is still thickened but it is far less soft when lower segment retraction is associated.

Treatment. This is both prophylactic and active.

The essentials of prevention appear in the application of a few general rules.

Guard against lower segment retraction by according the manifestations of 'irritable' uterus (namely: frequent, irregular and 'painful' contractions) treatment by sedatives, narcotics and even anaesthetics. This is especially true of cases wherein bougies or 'bags' have been used to induce labor.

In the presence of malpresentation, premature rupture of membranes, and unobliterated internal os, keep the patient in bed to prevent complete draining-away of the liquor amnii; control irregularities in uterine contractions by sedatives and narcotics; and institute hydrostatic dilatation as the safest substitute for the bag of waters where contractile efforts (once set up) are abnormal as to frequency, intensity, and the amount of 'pain' occasioned.

Never attempt the dilatation of a 'rigid' cervix until all trace of muscle-tone has been eliminated by deep surgical anaesthesia. Lower segment retraction and even tonic Ring are common results of failure to take this precaution.

Remove a hydrostatic dilator after it has been in position from 12 to 15 hours *regardless* of the dilatation produced. If little advance has been made, retraction is probable: while, if contractile efforts have ceased, it is probable that a tonic Ring has formed behind (that is, above) the dilator.

Active treatment has to do with the medication used to control uterine over-action and to remove the uterine obstacles to ultimate delivery, and with operative procedures made use of to compensate for deficiencies in expulsive efforts.

Morphine. This has a definite although a mild sedative effect upon over-active uterine muscle. It is sufficiently depressing however to assure satisfactory relaxation between contractile efforts where the latter are only slightly prolonged and where there is but mild tone preserved.

No small benefit comes from its relief of subjective pain; and the latter is a common accompaniment of uterine over-action. Whether it is cause or effect is immaterial. Morphine is said to 'soften' the cervix; but, at any rate, 'rigid' cervices are found to undergo more rapid spontaneous dilatation after its administration.

Dose is 1/4 gr., usually combined with atropine; or it may be used in correspondingly smaller doses (1/8 to 1/6 gr.) when combined with its 'synergist'—magnesium sulphate.

Inhalation Anaesthesia. When contractions have lost their intermittency and the uterine musculature fails to relax completely between contractile efforts, even light anaesthesia assures satisfactory relaxation. While, with retraction even moderately advanced, from 15 to 20 minutes of continuous light anaesthesia may be all that is required to re-establish normal uterine action and to effect relatively rapid spontaneous dilatation, the most promising sign of which is a return of mucosanguinous 'show'.

Rectal Anaesthesia. With membranes ruptured, with the cervix incompletely dilated, and with contractions frequent, *prolonged* and 'painful', ether in olive oil by rectum acts almost as a specific in restoring physiological contractile efforts, in relaxing the grasp of the retracted lower segment, and in effecting progressive dilatation. Aside from the relief of unnecessary 'pain' (with its inevitable *relative* shortening of labor), rectal anaesthesia *actually* shortens its duration; and this is doubtless due to the fact that it *assures* satisfactory relaxation in the intervals between contractile efforts.

It is reasonable to contend that a cervix that is 'soft' when a contraction begins will dilate more readily than one possessing tone at the time. Anaesthesia 'softens' the cervix because it removes lower-segment tone.

Rectal anaesthesia is invaluable because, by using relatively small and repeated instillations, not only perfect relaxation between contractions but also the frequency, intensity and the duration of the latter can be quite perfectly controlled.

Condition of the internal os has everything to do with the operative measures that may be employed.

With but a remnant of internal os remaining, the patient is still in an *anatomical* first stage, even though frequent, strong and prolonged contractions indicate a *clinical* second.

Indications here are, first, to decrease the frequency and the intensity of the contractions and, second, to aid directly in dilatation. They are best met by rectal anaesthesia (2 ozs. for instance) and by introduction of a hydrostatic dilator.

If the patient is a primipara, both procedures are indicated. Manual or digital dilatation may not be attempted because the cervix is not 'ready' for relatively rapid complete manual dilatation. Incomplete thinning-out of the lower segment, with added resistance to advance by forceps or by traction on the breech, and accentuation of lower segment retraction with the possible development of a tonic Ring are the usual consequences of attempts at complete manual dilatation under the circumstances.

If the patient is a multipara, choice lies between rectal anaesthesia (symptomatic sedative treatment) and manual dilatation under deep surgical anaesthesia. The necessity or the desirability for haste is the determining factor.

With the internal os wholly obliterated and the lower segment thin, the cervix is fully dilatable *under deep surgical anaesthesia;* and manual dilatation followed by delivery is indicated. This quite regardless of the extent of dilatation of the external os.

Complete skeletal-muscle relaxation is demanded before digital dilatation may even be begun; and adequate relaxation cannot be *depended* upon until anaesthesia has been carried to the point of beginning pupillary dilatation. It is impossible to eliminate lower segment tone, in only moderate retraction, under less than approximately 20 minutes of continuous anaesthesia. The writer's experience has been limited entirely to the use of ether in this connection.

The manner of effecting complete dilatation depends upon the location of the presenting-part. Arrest at the pelvic inlet and, then, at the outlet alone will be considered.

With inlet arrest and delivery indicated, it is presumed that internal podalic version and breech extraction will be done. The preferable method of dilation is the 'Harris', wherein the finger tips are inserted in the cervix and then widely separated, simulating physiological dilatation. Spontaneous dilatation proceeds from within outward.

Dilatation is 'complete' for purposes of delivery when—and only when—the loosely-clenched fist can be drawn through the cervix and lower segment with ease. Such a test commonly results in raising the presenting-part and it may be disengaged. But this is in no way a handicap since delivery is to be effected by version and extraction.

With the presenting-part low and the rim of the moderately well dilated cervix palpable, the most satisfactory dilatation is brought about by immobilizing the presenting part by forceps and exerting *upward* digital pressure against the cervix at the height of each contractile effort. Rim of the cervix is displaced upward beyond the broad diameter of the head *before any attempt at traction is made.*

This is desirable for several reasons. First, it simulates the normal mechanism of dilatation wherein the rim of the cervix is drawn upward. Second, it eliminates traction on the broad ligaments that is inevitable where dilatation is completed by forcible advance of the blunt head through the cervix. Third, it minimizes the amount of tractile force (and incidentally the amount of cerebral pressure) necessary to effect ultimate delivery.

With the presenting-part at intermediate levels, dilatation is effected by inserting the tips of the fingers just within the cervix. The fingers are gradually separated and the dilating cervix displaced upward. Dilatation is done during contraction; and the presenting-part is not displaced upward because it rests in the hollow of the rising hand.

Reference should be made to a common abnormality met in multiparous labor. Where the outlet is relaxed and the broad ligaments have been stretched, second stage commonly finds the presenting-part in the low mid-pelvis. Advance is retarded, and a markedly oedematous anterior cervical lip accounts for the delay. If dilatation is just short of complete, attempt should be made to displace the thickened anterior lip upward behind the symphysis and over the presenting-part *in the interval* between contractions. Subsequent expulsive efforts accomplish speedy delivery in cases where the second stage would be otherwise unnecessarily prolonged.

Before proceeding with operative delivery following artificial dilatation, definite information referable to the condition of Bandl's Ring is invaluable. A tonic Ring is a primary cause of dystocia: in other words, it accounts for incomplete dilatation. Accordingly, dilatation of the cervix is only a step—and the less important one—in operative delivery. With the Ring persistent, vaginal delivery is always difficult; and it may be impossible unless excessive and dangerous tractile efforts are made.

Lower segment exploration preliminary to extraction is indicated whenever dilatation is incomplete and any of the following abnormalities obtain: dry labor, malpresentation or malposition, and relative or actual pelvic contraction.

It is imperative after a single unsuccessful attempt at prdoucing advance by traction on forceps or on the breech.

EDITORIAL

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For list of officers of County Medical Societies, see this JOURNAL, advertising page xxii.

THE SUMMER SEASON

It is a theory that July brings rest and relaxation to physicians. Theoretically doctors are on their vacations during the summer season. This belief leads the writers of medical papers to request that their articles be withheld from publication until fall. The fact is that all seasons are very much alike to most physicians and that only the favored few are able to close their offices and retire to the mountains and seashore and summer resorts.

Physicians seem to read their summer medical JOURNALS as keenly as those of the winter. If the large number of articles that are in the hands of the editors are to be published within a reasonable length of time, they must appear during the summer as well as in the fall and winter.

ESTABLISHING COUNTY DEPARTMENTS OF HEALTH

There was recently held in New York a conference of representatives of the State Medical Society, the State Charities Aid Association, the State Department of Health, and the State Health Officers' Association.

This conference was for the purpose of formulating plans and methods of organizing County Health Departments; and particularly as to who should take the first step toward obtaining for the county this public health benefit by taking advantage of the permissive laws already existing, thus still further improving the splendid health organization in New York State.

Two principles were decided upon: first, the County Society must originate the movement in the county; second, the best help that can be rendered lies along educational lines.

Information must be furnished to the County Medical Society that will enable its members to decide if they want to advocate this new form of organization for public health advancement; and if they do, to help them to create public sentiment among the constituents of the Board of Supervisors sufficient to warrant the board in establishing a County Health Department, so that for every thousand dollars spent for health purposes the county may receive an equal amount from the state.

It was decided to undertake to support definitely the work of two counties already partly prepared for this advance step, and to encourage others that are beginning to show interest in the development of better organization for public health administration.

This conference was one of the most sane, sensible and practical illustrations of the value of an unselfish interest in advancing public health organization.

It was a concrete expression of the rapid evolution going on in medicine, in public health, and in lay organization this year; and it further shows in a striking way the value of harmony and team work.

CIRCLES OF INFLUENCE

Every physician starts waves of influence whose ever widening circles spread in all directions. The reputation which he voluntarily seeks is that which he can capitalize. He wishes to be known for special skill in fevers, or fractures, or other specialties, so that he may be called in consultation by family doctors, and sought by the people generally. The circle of his medical influence will be judged popularly by the number of calls which he receives and the size of his bank account.

A minority of practicing physicians seek a reputation along public health lines in addition to those by which they earn their living. A few can write, and their circles of influence may be multiplied indefinitely as other doctors adopt their ideas and methods of practice. Every medical society has one or two writers among its members, and these have opportunities to extend the influence of scientific medicine to all the physicians in the county, and secondarily to every person in the community. The writers have unique opportunities for broadening their circles of influence in medicine, which cannot be marred, even by those who use the articles primarily for advertising purposes.

Some doctors delight in talking, and these have a circle of influence which extends far beyond their immediate audiences. When public health measures are under consideration, the medical orator can create a favorable public sentiment even though his medical science is of the popular kind. The medical orator is of increasing importance in these days when public sentiment must be created for hospitals and clinics and welfare stations, and all kinds of public health prospects.

The physician who can speak interestingly may have a circle of influence which is larger than that of his colleague who knows his science better than the principles of medical salesmanship.

A doctor makes a great mistake when he thinks that his circle of influence is too limited to be of value. There is a place for every doctor in a county medical society. Every doctor can do something better than any other doctor; and his influence in his own peculiar field overwhelms that of any other doctor in his community. A county medical society cannot afford to exclude any physician except for gross violations of the code of medical ethics. It is even true that the medical profession can control a doctor who is in the society much more effectively than one outside of its influence. The county society has its circle of influence whose test is its power over the doctors of the county.

Every physician has a sense of his obligation to practical public health and civic medicine, to some extent at least. He also desires to extend his circle of influence, but often he does not know how to do it along public health lines. The newer activities of county medical societies include methods of extending the circles of influence of the societies through all the physicians and all the people in a community. It is an ambitious program, but new conditions must be met in new ways.

The Medical Society of the State of New York wisely leaves the decision regarding local medical matters to the county medical societies; but it will advise and assist them to make their circles of influence effective. It will supply the machinery which will enable the local society to transform its waves of influence into the driving power which will activate all public health work in a community.

THE MEDICAL SERVICE OF THE U. S. ARMY

The authority of the medical officers of the Army of the United States is now recognized to be as great as that of the engineer, the artilleryman and the aviator. The medical service of the regiment division, the corps and the Army is centered in the medical regiment whose officers are physicians, dentists, veterinarians, pharmacists and business men connected with those professions. The medical regiment of a division consists of over eight hundred men and sixty-nine officers under a medical colonel who is on the staff of the General in command, and whose activities are co-ordinated with those of all other branches of the service.

The United States Army conducts schools for training medical officers in the performance of their military duties. The one nearest to New York State is the Army Medical Field Service School at Carlisle, Pennsylvania, to which over five hundred medical reserve officers are sent each year for two weeks of training.

A two weeks' session has just recently ended; and another session opened on July third, which is attended by over fifty medical reserve officers from New York State. The doctors live under field service conditions. They room in tents with only such necessities as they can bring in a small trunk. The training is intensive from the point of military medicine, but of equal benefit is the physical training of the men themselves along lines that are like those of a hunting trip in the mountains. Still another benefit is that of meeting some of the leading medical lights of the land under conditions like those in a medical society. There are to be found the deans of medical schools, hospital managers, teachers of surgery, and leaders of medical societies. If a three-day meeting of the Medical Society of the State of New York affords the opportunity for physicians to consult one another regarding their problems, much more does the Army Field Service Medical School enable physicians to gain inspiration from their intimacy with the best medical men of the country.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Personal Hygiene: This JOURNAL for July, 1907, contains an article on personal hygiene in which the author, Dr. F. DeW. Reese, of Cortland, discussed the influence of retained discharges or closed channels, upon neighboring organs of the body. The article is of historical value, for its subjects are very different from those which would be discussed at present, and the suggestions emphasize the progress in medical science during two decades. The subjects discussed were:

1. Skin excretion. "A closure of the glands of the skin by dirt or from other influences, will load the system with eliminative products."
2. Stricture of the urethra, resulting in enlarged prostate, cystitis, ureteritis, pyelitis, nephritis, uremia and insanity—a pretty big list.
3. Constipation with all the attendant bad results that come from pent up contents of the intestinal tube. Diet and surgery can relieve the larger portion of these patients.
4. Uterine discharges.
5. Cerumen in the ear.
6. Adenoids—"With Gottstein's curette in a dexterous hand, with ethyl chlorid as the anesthetic, the operation for the removal of adenoids, can be performed in two and a half minutes."
7. Tonsillar crypts—slitting them and allowing them to heal from the bottom was the standard procedure recommended by the author.

MEDICAL PROGRESS

The Action of Glycocoll on the Urticarial State.—Professor K. Glaessner of Vienna has for many years taught that aminoacids are normally destroyed by the liver and that in damaged states of the latter they appear in the urine, from which he concludes that aminoacids serve as a means for measuring the efficiency of that organ. He used glycocoll for this purpose and found that it made the theory good. Later he made the further discovery that glycocoll may be useful as a "liver diuretic." In a special investigation of the phenomena of anaphylaxis he made a study of liver function and in following up this lead discovered accidentally that glycocoll antagonizes the urticarial habitus. The amount required is somewhat large — from 5 to 10 grams daily — but there are no ill by-effects which can be attributed to the drug. Given to a subject in the midst of an urticarial paroxysm in which the rash may be accompanied by fever, gastroenteric disorder, malaise, and other evidences of anaphylaxis, the symptom complex is seen to subside, the effect naturally being much more striking in the subacute and chronic types of case. Five case histories show that the patients developed urticaria from food factors only in a minority. In four of the five patients the antigen which caused the phenomena was not apparent. Irrespective of causation the drug brought about the desired result. We know of three types of anaphylactic phenomena which may at times overlap—the cutaneous (urticaria chiefly), the respiratory (asthma), and the gastroenteric, and whenever urticaria is a symptom glycocoll seems to act as a specific. On the other hand there was no response in isolated asthma and presumably none in the gastroenteric form with urticaria absent. The author frankly admits his inability to explain the favorable action, but hopes to do so after further investigation.—*Klinische Wochenschrift,* March 26, 1927.

Biochemical Studies of Skin Diseases.—Stümpke and G. Soika contribute a second article on this subject, the first having appeared in 1924. Some of their conclusions are as follows: With kidneys intact there is evidence of nitrogen retention in many cases of eczema, acne, urticaria, and other dermatoses while hyperglycemia can be shown in half the eczematous patients studied. Calcium values in the blood were often disturbed, but might be increased or lowered. Disastase and lipase in the blood were usually normal in quantity but the amount was disturbed in a minority. To explain these changes in the blood serum the authors invoke disturbance of either the endocrine glands or the vegetative nervous system. This factor is something quite distinct from that adduced by Jadassohn and Bloch, which has proved of value in practice, which involves the existence of special eczematogenous substances acting from without. The two factors, so far from excluding each other, can be readily harmonized. Metabolic anomalies, for example, may render the skin supersensitive to irritants. It has in fact been shown that certain blood anomalies render the skin more sensitive to the action of certain drugs. We know that in the clinic the subjects of frank anomalies of metabolism are predisposed to not one but many forms of dermatosis—the gouty, the diabetic, etc.—*Klinische Wochenschrift,* April 2, 1927.

The Treatment of Pernicious Anemia.—Henry C. Wales, writing in the *Journal of the Canadian Medical Association,* April, 1927, xvii, 4, relates his experience with the Minot and Murphy diet in a series of cases of pernicious anemia, including 12 patients in their first relapse, 17 in their second distinct relapse, and 16 who had had more than two relapses. These patients were on this diet for periods ranging from a few weeks to two and a half years. Five of the patients were seen only once, and of these three were improved. All of the others except three became rapidly better soon after taking the diet, and are still well. There was an improvement in the bowel movements, with a quick return from diarrhea to normally formed stools, an increased appetite, and an improvement in the blood picture—increase in the reticulated cells and red blood count. The icterus index of the blood serum early began to fall and in two to three weeks became normal. Within a month the yellow tint of the skin disappeared. As pernicious anemia is characterized normally by periods of remission, it is too early to say how long this improvement will be maintained. The Minot and Murphy diet consists of 120 to 240 gm. of cooked beef liver or calves' liver daily (an equal part of lamb's kidney may be substituted occasionally); 120 to 240 gm. of lean beef or mutton daily; 300 gm. of vegetables, especially lettuce and spinach; 250 to 500 gm. of fruit—peaches, apricots, strawberries, pineapple, or grapefruit; 40 gm. of fat in the form of butter or cream, other fats and oils being excluded; one egg daily, two glasses of milk and as much ordinary food as the patient wants. The only medication given is dilute hydrochloric acid, 1 to 4 c.c. half an hour before and during meals, the average amount being 15 c.c. daily.

Heart Load.—Neuton S. Stern, writing in the *Southern Medical Journal,* May, 1927, xx, 5, points out that the work the heart has to do depends upon five factors. These factors are blood pressure, stroke volume, the area of aortic orifice, duration of systole, and the heart rate. Though all of these factors are variable and some of them are difficult of measurement, if they can be combined in a formula they permit the calculation of the heart load in actual units of work. Stern has devised the formula, $\left(R \frac{1.36\ MP}{T} + \frac{M^3}{2A^2T^2} \right)$ where R is the rate of the heart per minute; M is the stroke volume in c.c.; P is the blood pressure in mm. Hg.; T is the time in systole seconds; A is the area of the aortic orifice. The effect of the various factors is discussed with relation to the heart as a whole and to various pathological conditions. If other factors remain the same, though of course this is not always the case, the work of the heart is in direct proportion to its rate—the more rapid the pulse the greater the work the heart has to do. It can readily be seen, therefore, what a tremendous effect rest, morphine, and digitalis have on the heart simply by slowing its rate, as this increases the diastole, and allows more time for rest, recuperation, and nourishment of the myocardium. By substituting actual values in the formula the author shows that under basal conditions, the work the heart does may be expressed by 0.5 watt per minute, or 30 watts per hour. Under exertion the heart manifests a reserve power of 100 to 125 times the basal requirements. Under pathological conditions this reserve is encroached upon even in the basal state, by increase in the rate, the stroke volume, and the blood pressure, to say nothing of impairment of the muscle. This explains why heart patients show the same symptoms that develop normally after strenuous exercise.

Purulent Pericarditis in Childhood.—Ernest G. Williamson reviews the literature of suppurative pericarditis, which shows that 117 cases of this condition have been recorded, and reports a case operated on at the Children's Hospital in Philadelphia by Henry P. Brown, Jr. The diagnosis is made by the history of recent infection, fever, usually septic in type, rapid pulse, dyspnea, restlessness, possibly cough, and precordial, epigastric, or abdominal pain. An *x*-ray examination is helpful. The treatment consists of incision and drainage. In the case reported, that of a boy seven years of age, there was a history of seven weeks illness, beginning with cervical adenitis and followed by ptomaine poisoning, vomiting, and urticaria. An abscess formed in the left shoulder posteriorly. The parents were told that the child had pneumonia and nothing could be done for him. Shortly after admission the fluctuating tumor over the left scapula was incised, but no pus was obtained, and repeated punctures of the left chest failed to reveal pus. Finally, after *x*-ray examination, a diagnosis of serofibrinous pericarditis was made. Paracentesis pericardii was performed and seven or eight ounces of thin purulent fluid were removed, with quite marked relief of symptoms. Two days later the fifth costal cartilage and the adjacent portion of the sternum were resected, the mammary artery was ligated, the pleura reflected, and the pericardium incised. A large rubber drain was inserted. The patient's condition was grave for several days, but he finally improved. The sac was irrigated daily with warm saline solution until the twenty-fourth day, when, as fibrin seemed to be accumulating, Dakin's solution (20 c.c.) was employed. Under this treatment the fibrin and discharge decreased and the temperature showed a downward trend. Although a fistula persisted for a time, the child eventually made a perfect recovery. Williamson questions the advantage of the drainage tube. In most of the cases reported this was not used. Sufficient drainage is ordinarily provided by making an adequate opening in the pericardium and suturing its edges to the skin opening. The movements of the heart preclude the formation of pockets. The treatment of the infected pericardium is not sufficient in these cases, since it is likely that the myocardium is markedly diseased, as evidenced by palpitation, tumultuous heart action, dyspnea, tendency to syncope, cyanosis, and signs of heart failure. Dr. Brown's patient showed this condition in a marked degree and required frequent tappings, and energetic medical treatment.—*Annals of Surgery,* May, 1927, lxxxv, 5.

Primary Resection of the Stomach in Complete Perforation of Gastric or Duodenal Ulcer.—Professor Kreuter mentions the inevitableness of peritonitis after these accidents, to prevent which the source of infection should in theory be cut off. While we can establish formulae for the management of appendix-peritonitis and gall-bladder peritonitis, this is not the case with the peritonitis following perforated peptic ulcers. It is indeed conceded by all that the perforation must be closed but there are numerous differences of opinion as to the best method of procedure, largely because of the technical difficulties involved. To weigh all the evidence pro and con and then come to a conclusion will always remain a necessity. It is impossible even to allude to all of the individual procedures which have been recommended. The sole object of Kreuter's paper has to do with the indications for resection. Those who do gastroenterostomy for unperforated ulcer will doubtless anastomose for perforation; and conversely those who have done many resections for ulcer will resect for perforations. A borderland exists in which either plan may give a good result, that is, the worst types of chronic ulcer may heal under simple anastomosis—but in the long run the surgeon who has become familiar with resection will prefer it in general and will even tend to employ it for perforation. For nearly five years the author has treated practically all cases of ordinary peptic ulcer by resection and has done 278 resection operations in that interval. The number of cases of perforation during this period was 62, and of these one-half were treated by resection, the rest being cared for by suture and anastomosis. The transition from palliative to radical has been gradual. The 31 cases treated by palliation gave 12 fatalities or 38.7 per cent mortality and those treated by resection showed but five deaths, or 16.2 per cent mortality.—*Klinische Wochenschrift,* April 16, 1927.

Röntgen Treatment of Ulcer of the Stomach and Duodenum.—Th. Barsony and L. von Freidrich, of Budapest, have tested this therapeutic resource on 75 patients with peptic ulcer. Apparently it does not go back further than 1923 and the authors first took it up in the following year and utilized it for a full year after which they ceased its employment until some sort of judgment could be passed on its efficacy. Matoni claims 77 per cent of actual cures after two and a half years, Schulze-Berge about 70 per cent after six months, and Lenz nearly 80 per cent of cures. The criteria for the use of röntgen therapy are positive Röntgen diagnosis and a clinical history of at least three years. None of the 75 cases reported in this article was submitted to the treatment until after medical treatment had failed—rest, Sippy diet, protein therapy. No other treatment was added to the radiation, the patients were not in bed and in fact went about their regular duties for the most part. The diet was light but not specific. The treatment consisted originally of a single session, but later of several sessions, mostly repeated at the end of a month. Of the 75 patients 65 were kept under observation for 1 to 2 years. The pains ceased in 30 of these only, and all but 2 of them returned sooner or later. At the close of 1½ years but two patients remained in good condition free from recurrence. The authors' results are therefore worse than any of those quoted above and the most that they can affirm is that the röntgen treatment may prove a good accessory to ordinary medical measures. Whether the other reporters used medical treatment is not mentiond. The technique was very simple—half to one Holzknecht unit, 5 mm. aluminum filter, and distance 30 cm. The duration is not stated.—*Klinische Wochenschrift,* May 7, 1927.

Pituitary Extract in Gallstone Disease.—Professor C. Garré has sought to determine whether this treatment will prove a rival to ordinary surgical intervention. There is evidence that injections of hypophysin can empty the gallbladder and force the expulsion of small stones. The same claim has been made with conflicting results in the case of kidney stone. The operating surgeon has the best chance of convincing himself on this score, for after the drug has been injected he can actually watch the gallbladder directly. From the theoretical standpoint something like 90 per cent of gallbladders which come to operation show diseased walls—from simple inflammatory edema to more or less cicatricial alteration, and it is extremely doubtful if these altered walls retain the power of contractibility or could respond to injections of the drug. These walls are moreover apt to be infected even when the bile is sterile and it might readily happen that old infectious foci would become mobilized. In regard to the ability to expel small stones from the gallbladder this might happen conceivably if the stone chanced to be present in a so-called stasis gallbladder with hypotonia of the muscle, the latter being able to respond to stimuli through the parasympathetic nervous system. In all other conditions, including chronic cholecystitis, hydrops, and empyema, the drug would not be able to expel stones from the gallbladder because of several factors, one of which is reflex closure of the sphincter of Oddi as soon as the stone enters the cystic duct and another the probable inability of the muscle to respond to stimulation. The author has often tested the expulsive treatment with negative results. He apparently prefers atropine and warmth to relax sphincteric action and some of the newer cholagogues, with the addition of salines to promote duodenal peristalsis and increase and promote the flow of bile, although he does not regard these as rivals to operative surgery.—*Deutsche medizinische Wochenschrift,* April 22, 1927.

Alcohol Abuse and the Liver.—Professor G. von Bergmann refers to the report of Eppinger, of Vienna covering 319 cases of hepatic cirrhosis, of which but 24 per cent were examples of typical Laennecatrophic cirrhosis and 6.4 per cent of the hypertrophic form. This leaves 70 per cent of mixed and atypical cirrhosis. Of victims of atrophic cirrhosis 61 per cent confessed to the abuse of alcohol, while in the hypertrophic form the same percentage was 26. Taking up the entire 319 cases, 14 per cent of the men and 58 per cent of the women had never used alcohol and many more were evidently only moderate users of it. The author attacks the problem of the relation of alcohol to the liver from another angle and seeks to show that even transient overindulgence notably affects the functions of the organ. He has studied from this angle 105 individuals, of whom 71 had some affection of the liver while 34 were normal so far as hepatic function was concerned. The substance used for testing hepatic efficiency was bilirubin given by intravenous injection and the content of the blood serum and urine was determined later after having made sure that the urine was previously free from the coloring matter of the test. Hepatic insufficiency is naturally shown by retention and delayed elimination. In 7 cases of actual cirrhosis slow elimination was invariably found, although much more marked in some cases than in others. In addition, in chronic alcoholics without cirrhosis a study of 26 cases showed distinct retention in 5 and marked retention in the same number, while 6 showed a mean normal figure and 10 the upper limit of the average. In eleven cases in which there was no chronic abuse, but transitory acute alcoholism, 3 showed slight retention and 2 marked retention. The author contends that he has shown the power of alcohol to influence unfavorably the hepatic functions, so that in the chronic abuser with defective elimination of injected bilirubin we may speak of a latent cirrhosis.—*Klinische Wochenschrift*, April 23, 1927.

Insulin in Diabetic Retinitis. — L. Genet relates five case histories of the influence of insulin treatment of diabetes on the retinitis which develops in that affection. In but two cases was there seen an amelioration in the acuity of vision and this was but slight. In the other three not only was there no favorable influence exerted, but the complication went from bad to worse. A study of the favorable cases ought to throw some light on the failure of the treatment in the others. That the slight improvement was due to the insulin may be doubted, for in one case an iritis had been present with involvement of the vitreous, and the improvement could have been explained by the spontaneous clearing up of the latter. As a matter of fact there was no change seen in the fundus which could account for the improved vision. In the other favorable case there was nothing to explain the slight benefit and nothing to show that the fundus had undergone any objective alteration. At least from the objective standpoint there is no reason to believe that insulin can produce any favorable alteration in the fundus in true diabetic retinitis. The author refers, however, to favorable reports from other ophthalmologists, which indeed offered the occasion of his making a special study of the subject. The fact that one patient did obtain some subjective improvement which could not be explained in any other way leaves the subject still open, but it is evident that future alleged cases of improvement will have to be carefully documented. There are sources of fallacy to be considered, for example in connection with hemorrhagic types of retinitis which are known to improve spontaneously.—*Journal de médecine de Lyon*, March 20, 1927.

Cranial Traumatisms causing Alterations of the Hypophysis.—A. Galluppi sums up his study of this subject by stating that cranial injuries are very often responsible for setting up hypophyseal syndromes. That the relation of cause and effect is not more frequently established is due to inadvertence and because of the complex symptomatology of cranial injuries. Hemorrhages within and outside the hypophysis are often overlooked. They are often absorbed without sequelae or the cysts formed are too small or there is a resulting scleroatrophy of the organ. The volume of the sella is often diminished because the free osseous appendages are readily deflected by cranial injury, and hyperostoses and synostoses sometimes result. Anomalies of the internal secretions of the hypophysis may be masked by participation of other endocrines. When the hypophyseal symptoms appear the patient may have already recovered from his cranial traumatism. In the youthful subject with partial arrest of development, moral deviations, instability, etc., it is well to consider the possibility of a traumatic origin acting through the hypophysis. Three cases are narrated. In one a man of 36 sustained a trauma in the occiput. The clinical picture was vague, but examination of the visual fields with radiography of the sella pointed to the hypophysis as the source of the symptoms. In the second case in a young man of 21 there had been an injury of the cranium at the age of 4 years. The radiographic diagnosis of very small sella was confirmed by autopsy. This with the limited vision and visual fields reduced one half were sufficient for a diagnosis. Other typical symptoms were headache, diabetes insipidus, etc. The third patient, a woman of 44 had received a cranial injury at the age of 10. Both this and the preceding patient showed arrest of skeletomuscular development. The sella and visual fields were characteristic in this patient.—*Revue Française d'Endocrinologie*, February, 1927.

LEGAL

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SUPREME COURT OF THE UNITED STATES UPHOLDS THE VIRGINIA STATUTE PROVIDING FOR THE STERILIZATION OF MENTAL DEFECTIVES

The recent decision of the Supreme Court of the United States in the case of *Buck vs. Bell*, upholding the Virginia statute providing for the sterilization of mental defectives under careful safeguards, should arouse interest not among physicians only, but with all persons who are interested in the problems of eugenics and the betterment of the race. It should be of special interest to the citizens of New York State where a similar statute a few years ago was declared unconstitutional, and then repealed.

In 1912, Article 19 was added to the Public Health Law of our State. It provided for a board of examiners of the feeble-minded, criminals and other defectives, and made it the duty of that board to examine into the mental and physical condition and the record and family history of the feeble-minded, epileptic, criminal and other defective inmates confined in the several state hospitals for the insane, state prisons, reformatories and charitable and penal institutions. The statute provided that if in the judgment of the majority of the board, procreation by any person would produce children with an inherited tendency to crime, insanity, feeble-mindedness, idiocy or imbecility, and there was no probability that the condition of any such person so examined would improve to such an extent as to render procreation by any such person advisable, or if the physicial or mental condition of any such person would be substantially improved by an operation for the prevention of procreation, then and in such case the board should appoint one of its members to perform such an operation as should be decided by the board to be most effective for that purpose. The criminals who came within the operation of that law were those who had been convicted of the crime of rape or of such a succession of offenses against the criminal law as in the opinion of the board should be deemed sufficient evidence of confirmed criminal tendencies.

Under the New York statute, an elaborate machinery was provided for the protection of the person upon whom the operation was to be performed. It compelled the board of examiners to apply to a judge for the appointment of counsel to represent the person to be examined, and that all orders entered in such proceedings were subject on appeal to a stay. After such an order was made and decided on appeal, th board of examiners was required to preserve i the institution where the inmate was confine the record of the proceeding, and the superin tendent of the institution was compelled to re port to the board of examiners at the conclusio of one year "the condition of the inmate and th effect of such operation upon such inmate . . .

The statute further provided that "Except a authorized by this act, every person who shal perform, encourage, assist in or otherwise permi the performance of the operation for the purpos of destroying the power to procreate the huma species or any person who shall knowingly per mit such operation to be performed upon suc person unless the same shall be a medical neces sity, shall be guilty of a misdemeanor."

This statute marked an advance in endeavorin to make practical application of the principles o eugenics to the end that society might take prope measures to bring about a better race.

In regard to a similar statute in California, th Attorney General of that state declared, "I an of the opinion that these are grave constitutiona questions," but "as restricted to the sterilizatio of the inmates of prisons and hospitals by th method of vasectomy, I am of the opinion tha there are no legal inhibitions upon this enlight ened piece of legislation which is an awakenin note to a new era and a great advance towar that day when man's inhumanity to man will hav acquired a meaning beyond mere frothy senti ment."

In the State of New Jersey, a similar statut came before the Courts, and in a decision writte by Judge Garrison (Secretary of War under th Wilson administration), the New Jersey statut was declared unconstitutional.

The New York statute came before our Court in 1918 in the case of *Osborn vs. Thomson.* I that case, Frank Osborn was an inmate of th Rome Custodial Asylum, twenty-two years o age, strong physically but feeble-minded. Th board of examiners provided by the statute determined to perform on Osborn the operatio known as vasectomy, and Osborn through hi counsel, sought an injunction from the Court preventing the operation. The case came on in March, 1918, before Mr. Justice Rudd.

Much medical testimony was taken, most of which was against the performance of the operation. The constitutionality of the statute was attacked, the claim especially being that the same was in violation of the Fourteenth Amendment of the United States Constitution which declares "that no state . . . shall deny to any person within its jurisdiction the equal protection of the laws."

In a twelve page opinion, Mr. Justice Rudd reached the conclusion that the statute was unconstitutional, and that by reason of the same Osborn was not given the equal protection of the laws. The judgment in the Osborn case was appealed to the Appellate Division where by unanimous decision it was affirmed without opinion. Because of this, no doubt, in 1920, the New York statute was repealed.

The testimony of the physicians who gave evidence in the Osborn case may be thus summarized:

Dr. Lemon Thomson, one of the board of examiners, testified that the board had selected Osborn after learning as to his family and after submitting him to a somewhat superficial examination physically and mentally, and that such selection was made because in the opinion of the commission Osborn could not probably procreate normal offspring. His was what the board of examiners thought a bad case. Dr. Thomson further testified that he had never performed the operation of vasectomy for sterilization; that in his opinion no benefit would come to the patient from the operation so far as rendering him free from the dangers of the infection of a venereal disease; and that the operation would not weaken in Osborn the tendency of a rapist.

Dr. Andrews, another member of the board of examiners, testified before Mr. Justice Rudd that he had never performed the operation, that he had never seen it performed; and that while the statute required the board to determine upon such operation as would be most effective, he believed that vasectomy would not be the most successful operation, but on the other hand, castration would be.

Dr. Bernstein, the superintendent of the Rome Custodial Asylum where Osborn had been confined as an inmate since 1907, and in which more than 1,300 patients were cared for, testified that Osborn was of a higher grade of feeble-mindedness; that the actual number of feeble-minded in New York State had not increased proportionately in twenty-five years; that because of the demands of society there developed many social failures; that there had been a persistent demand for the removal of such individuals from temptations in the community; and that these social failures were forced upon the attention of the state so that it had become an accepted principle that the state must care for its defectives. Dr. Bernstein further swore that he had observed 5,000 feeble-minded patients; that Osborn could not earn his living outside of the institution if he were turned out into the world: that he had an eight-year mental capacity; that all patients in the institution are segregated; and upon the question of Osborn being able to procreate normal children he said, "We are taught that the dominant traits appear in three quarters of the offspring and recessive traits appear in one-quarter, when the parentage is mixed as regards traits; that it is only in cases of feeble-mindedness of both parents that you would look generally for an increase of feeble-mindedness among offspring."

Dr. Bernstein further swore that vasectomy would not change any of the criminal tendencies of the feeble-minded and would only eliminate the one element of procreation; and that in his opinion one of the conditions which would result from a general enforcement of the law would be the tendency to create a class of people who would feel that they were so abnormal that they could indulge in promiscuous sexual relations, and that there would be known places where these people would be harbored, and there they would tend to collect. Further he said that among persons who had been sterilized, you would find increased sexual intercourse, and that such illicit intercourse is a promoter of disease and general demoralization.

It was Dr. Bernstein's sworn opinion that the proposed operation on Osborn should not be performed as it would not help him or any of the other 1,300 inmates of the institution or society in general; that were the operation performed, Osborn would nevertheless require supervision and care, and that after the operation, his natural desire would be just as great to seek female companionship. Further, that in his judgment, society needs protection from the raping of little girls and the frightening of them just as much as it wants protection from a future generation of dependents and delinquents. It was the doctor's opinion that the legislation in question was "in advance of our enlightenment," as at that time the subject was not sufficiently understood. He believed that a careful and scientific study of ductless glands and their secretions shows that when such secretions forming in the body are interfered with, conditions are created which affect the brain and the nervous system.

Dr. Davenport, a biologist, testified that he agreed with Dr. Sharp's article on "Vasectomy as a Means of Preventing Procreation in Defectives," in which article it was stated that "defective persons are not necessarily to become a public charge, for included within this class are to be found the most gifted as well as the most vicious, weakest and ordinarily the most unhappy of mankind," mentioning Chatterton, Goldsmith, Coleridge and Charles Lamb as instances. Dr.

Davenport said that he did not advocate the operation of vasectomy, believing segregation of the sexes was preferable.

Dr. Coakley, a specialist in vivisection, testified as to the danger of infection because of the retained secretions in the body; that in the operation the vas deferens is severed, but that it can be reunited even after considerable length of time, and that therefore nothing would be accomplished by such an operation.

Dr. Fernald, superintendent of the School for Feeble-Minded in Massachusetts, testified that he had never seen an authorized medical statement based upon actual facts which would justify claims made for the results in Indiana, where such a law is in operation; that the operation of vasectomy does not in the slightest interfere with the physical act of sexual intercourse; that illicit intercourse would result, and that the effect thereof would be the exchanging of the burden of feeble-mindedness for the burden of sex immorality or sex diseases and of insanity resulting in that condition which would be quite as serious and would affect people who are producers and burden bearers. Dr. Fernald believed that the operation would prejudice many right-thinking persons against institutions for the feeble-minded when it became known that under the law such an operation could be performed against the wishes of the inmate.

The medical testimony thus marshalled before Mr. Justice Rudd was not contradicted, and it was natural enough therefore that the Judge should accept this uncontradicted evidence and should follow it. No doubt, other and equally impressive testimony could have been marshalled on the other side which might have given the matter a different aspect, but no such testimony was produced. While a decision in the Osborn case was primarily based upon the conclusion that the New York statute was unconstitutional, from our studies of the nature of judicial process, we can not but wonder whether the decision would have been otherwise had medical testimony of a different character been presented to the Judge.

In May of this year, the question of the constitutionality of the Virginia statute similar in all of its essential details to that of the New York statute, came before the United States Supreme Court, and its constitutionality was upheld.

The Virginia statute recites "that the health of the patient and the welfare of society may be promoted in certain cases by the sterilization of mental defectives, under proper safeguard . . . ; that the sterilization may be effected in males by vasectomy and in females by salpingectomy, without serious pain or substantial danger to life; that the Commonwealth was supporting in various institutions many defective persons who if now discharged would become a menace but if incapable of procreating might be discharged with safety and become self-supporting with benefit to themselves and to society; and that experience has shown that heredity plays an important part in the transmission of insanity, imbecility, etc."

The statute then provides that whenever the superintendent of certain institutions for epileptic and feeble-minded persons should be of the opinion that it is for the best interests of the patient and of society that an inmate under his care should be sexually sterilized, he may have the operation performed upon any patient afflicted with hereditary forms of insanity, imbecility, etc., on complying with the very careful provisions by which the act protects the patient from possible abuse.

The procedure provided by the Virginia statute is very similar to that of the repealed New York law.

The Supreme Court made short work of the attack upon the constitutionality of this statute, and in an opinion of great brevity but extreme clarity, Mr. Justice Holmes, the distinguished son of the distinguished physician, Oliver Wendell Holmes, outlined the reasons why the Virginia law should be upheld.

"The attack is not upon the procedure but upon the substantive law," declared Mr. Justice Holmes. "It seems to be contended that in no circumstances could such an order be justified. It certainly is contended that the order can not be justified upon the existing grounds. The judgment finds the facts that have been recited and that Carrie Buck 'is the probable potential parent of socially inadequate offspring, likewise afflicted, that she may be sexually sterilized without detriment to her general health and that her welfare and that of society will be promoted by her sterilization,' and thereupon makes the order. In view of the general declarations of the legislature and the specific findings of the Court obviously we cannot say as a matter of law that the grounds do not exist, and if they exist they justify the result. We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the state for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the fallopian tubes. *Jacobson v. Massachusetts*, 197 U. S. 11. Three generations of imbeciles are enough."

In the New York case, Mr. Justice Rudd, in explaining the reasons for his conclusion that the feeble-minded Osborn was not given the equal protection of the law guaranteed by the Constitution, declared: "He is no different from many others, running no doubt into the thousands in our state who are not within the confines of a state institution, and who taken together with those who are in institutions and similarly situated, mentally and physically, make up a large class of mentally deficient people. Can it be said that the law can direct the physical mutilation of the bodies of those who are in the state's care, and not be concerned with the same class of persons who are in the world at large?"

A similar contention was made in regard to the Virginia statute, but Mr. Justice Holmes made short work of that contention in these words, "But, it is said, however it might be if this reasoning were applied generally, it fails when it is confined to the small number who are in the institutions named and is not applied to the multitudes outside. It is the usual last resort of constitutional arguments to point out shortcomings of this sort. But the answer is that the law does all that is needed when it does all that it can, indicates a policy, applies it to all within the lines, and seeks to bring within the lines all similarly situated so far and so fast as its means allow. Of course, so far as the operations enable those who otherwise must be kept confined to be returned to the world, and thus open the asylum to others, the equality aimed at will be more nearly reached."

The decision of the Supreme Court of the United States in the Virginia case should prove of vital interest to every physician in this country. Whether or not in the trial of that case there was expert testimony, does not appear from the opinion of the United States Supreme Court, but in any event, the highest tribunal of the land has now determined once and for all time that society has the right to protect itself against the procreation of those who will become a burden and a public charge.

Who is there that would attempt to answer these unanswerable assertions of the Supreme Court of the United States? "We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the state for these lesser sacrifices, not often felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind?"

With our recent crime waves and the overcrowding of the Courts to such an extent that justice is notoriously delayed if not denied, may it not be our duty here in New York State, at least to consider whether or not the statute which we repealed in 1920 should now be reenacted?

The plaintiff, Carrie Buck, in the United States Supreme Court case was a feeble-minded, white woman who was the daughter of a feeble-minded mother of the same institution, and herself the mother of an illegitimate, feeble-minded child. If the state has not power over its citizens sufficient to enable it to curtail the menace involved in the procreating powers of such a person—a curtailment which involves no deprivation either of life, liberty or happiness—by what reasoning can it claim the right, should another war descend upon us, to demand the *life* of such a man as Charles A. Lindbergh?

REMOVAL OF MIDDLE TURBINATE AND POLYPS FOLLOWED BY MENINGITIS AND DEATH

An administrator instituted an action against a physician specializing in nose and throat work, seeking to recover damages for the death of his intestate, which was claimed to have been due to the defendant's negligence in operating upon the deceased.

The complaint charged that the defendant physician had advised the deceased that it was desirable and necessary to perform an operation upon him for the removal of a few polyps and part of the middle turbinate and of the ethmoid bone, and that such operation was performed by the defendant upon the decedent; that by reason of the negligence and improper conduct of the defendant in the performance of his operation the deceased became infected, from which infection he contracted meningitis and died ten days after the performance of the operation.

The deceased was a man of about 62 years of age and conducted an optical store in the neighborhood of the defendant's office. For a long time he had been affected with ethmoiditis, and several years prior to this operation the defendant physician had removed several polyps from the decedent. Shortly prior to the operation, the deceased called on the defendant complaining of headaches and difficulty in breathing. Upon examination the physician found that the nasal sinuses were obstructed by several polyps, and advised the removal of them and of the posterior portion of the middle turbinate. The anterior portion had been removed several years previous.

The operation was consented to, and under a local anaesthesia of cocaine and adrenalin the defendant proceeded to the removal of the posterior portion of the middle turbinate and snared out several polyps with a wire snare. The instruments used by the defendant in this operation were proper and had been carefully sterilized before using. Upon completion of the operation the patient rested at the physician's office for a few hours and then left for his home. The operative field had been packed with iodoform gauze dipped in a 2% solution of mercurochrome. On the day following the operation, the patient returned to the defendant physician, the packing was removed and the parts cleansed and irrigated with Dobell's solution. At this time there was nothing untoward in the appearance of the patient. On the second day following the operation the physician was called to the patient's home, where he found him to have a fever, with a temperature ranging from 101° to 102½°. He prescribed aspirin and phenacetin and the application of ice bags to the head. On the next day he again visited the patient at his home, at which time the temperature was slightly higher. After this visit an internal medicine man was called in consultation, and after examination he advised the performance of a lumbar puncture, which was done by a pathologist. About 4 o'clock in the afternoon of this day, the third day after the operation, the patient was removed to the hospital where a second spinal puncture was performed and a pathological examination disclosed that the patient was suffering from meningitis. He was given about four doses of anti-streptococcus serum; one dose every six hours intraspinally. The patient did not respond to this treatment, grew continuously worse, went into a coma and died early in the morning of the fourth day after the operation. The cause of death was given as septic meningitis (non traumatic) following ethmoiditis; contributory cause: cardiac failure.

There was no fracture of the cribriform plate and the defendant physician felt that the meningitis was most probably due to a lighting up of the chronic infection present in the ethmoid cells. He also felt that the old infection from which this patient suffered for many years extended into the meninges through the nerve sheaths in the openings of the cribriform plate, likewise, that it was possible that the meningitis might have occurred without any operation having been performed upon the patient.

For several years the administrator continuously prosecuted the action and examined the defendant physician before trial, in preparation of the presentation of his case. He then became lax in the prosecution and sought to procure a settlement, first for a large sum and finally for his hospital and funeral expenses.

Fully believing that the patient's death was not due to any negligence upon the part of the defendant, all offers of compromise were declined.

The time having passed when the action should have been brought on for trial and disposed of, a motion was made on defendant's behalf to dismiss the case for lack of prosecution. The motion was granted, thus terminating the case in defendant's favor.

NEWS NOTES

COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations of the Medical Society of the State of New York met on Friday morning, June 17, 1927, in Room No. 46 of the Academy of Medicine, New York City. The following were present: Dr. Fisher, chairman; Dr. Mitchell, Dr. Sadlier, Dr. Trick, Dr. Farmer, and Dr. Lawrence. Dr. Fisher announced that Dr. Morris had been excused.

The first order of business was a consideration of the duties and function of a County Society Public Relations Committee, and the following five points were adopted:

1. Make a complete survey of health agencies in the county, noting the names, membership, program, and manner of carrying on same.

2. Collect data concerning all types of medical activities, both curative and preventive, and whether promoted by official or unofficial agencies.

3. Confer with director or proper committee of every agency or organization interested in conducting or promoting curative and preventive medical activities in the county, with regard to its program, for the purpose of offering assistance in the development of the medical phase of such program.

4. Confer frequently with the public health committee of the County Society regarding the methods employed in public health work throughout the county.

5. Be prepared to take the leadership in developing medical programs of county agencies.

The Committee was of the opinion that it might be difficult at times to separate the function of a public health committee and a public relations committee, and that the smaller Societies may find it desirable to have the same personnel function as both committees. But, where possible, it was agreed that there should be two separate committees.

The second matter discussed by the Committee was the subject of future conferences with State health agencies, and it was decided that a conference should be sought with representatives of the following, at an early date after the vacation period: State Department of Health, State Department of Education, State Department of Mental Hygiene, Red Cross, and the Association for the Prevention of Cancer.

Another subject for future consideration of the Committee is the development of a liaison with lay groups, with the idea of bringing before the public a comparison of the work done by private physicians and public agencies, for the purpose of keeping the public intelligently informed as to the quantity and character of service rendered by the private physician. It was felt that at present all medical publicity features are too exclusively the activities of public officials, whether physicians or nurses. It was realized that this is a perfectly natural development, but it was felt that the public public is, unfortunately, being misled, in that so little comment has been made of the assistance rendered by the private physician. The Committee realized that this is a difficult problem, and the activity along this line would readily admit of being classified as stimulated by a jealous motive.

There being no further business, the Committee adjourned until 2:00 P.M., when it will meet in conference with representatives of the State Charities Aid Association.

THE JOINT COMMITTEE ON PUBLIC RELATIONS

The Joint Committee on Public Relations met at two o'clock, June 17, 1927, in the New York Academy of Medicine. Those present were:

From the State Charities Aid Association: Mr. Homer Folks, Dr. Farrand, Dr. Weiskotten, Dr. Burnham, Mr. Nelbach and Mr. Kingsbury.

From the State Medical Society: Dr. Fisher, Dr. Mitchell, Dr. Sadlier, Dr. Trick, and Dr. Lawrence.

Dr. Fisher presided. He stated that the report of the Joint Committee, which was submitted by the chairman, Dr. Cottis, to the House of Delegates and which was published in the June 1 issue of the New York State Journal of Medicine, was received with favor everywhere and he had heard none but favorable comments upon it.

Mr. Folks stated that the report was favorably received, and was adopted by the State Charities Aid Association, and only favorable comments had been received from members of County Committees who had seen it. He stated that it is the intention of his Association to publish the report in the State Charities Aid Association News in an early issue. This publication has a circulation of 24,000. The report will be accompanied by a comment prepared by Mr. Folks. In addition to that, a letter will be sent to each County Public Health Committee calling attention to the details of the report, and the Association's field agents will be instructed to help every County Committee frame its program in accordance with the spirit of this report

The Committee then considered the duties of a Committee on Public Relations of a County Medical Society, as outlined at the morning conference. The outline met with general approval, and Mr. Folks stated that the State Charities Aid Association will prepare a similar program for the County Committees, and publish it at about the same time with that of the State Society, in order to prevent any confusion that might arise from the lack of information.

A discussion followed on the efforts that are being made at present toward the erection of county health units. Mr. Folks announced that, as he understood it, the procedure should be that the County Medical Society would take the initiative in bringing the matter before the board of supervisors; that the Committee on Tuberculosis and Public Health should assist and support the Medical Society by creating public opinion in favor of the move.

The County Medical Society will also invite to its assistance representatives of the State Department of Health. It is thought that these three organizations should limit their activity during the next year to five or six selected counties.

Mr. Folks further suggested that a working committee, similar to the Anti-Diphtheria Working Committee, be appointed from the three agencies named above, for the selection of the counties and development of a program. Such committee should begin to function as early as possible in order that the proper budgets may be prepared and be ready for submission to the boards of supervisors when they meet early in November.

It was also realized that the sponsors of the county health unit will have a great responsibility for the future success of all attempts at organization and, therefore, great care should be exercised in the selection of the county and the details of the program.

The Committee then considered the manner of developing the county programs, providing for proper cooperation and publicity. It was agreed that special efforts should be made to give the private physician his share in all publicity. Mr. Folks, on the part of his organization, said that he knew the local units would be glad to cooperate. He and others realized that it is highly desirable that information of the part played by the physicians be given to the public and that voluntary agencies should function as the selling agents for reputable and proper medical care, as opposed to quacks and cults. Publicity will necessarily differ with the problem and the community.

LECTURES TO COLORED PHYSICIANS

A post-graduate medical course for colored physicians is being given in the Tuberculosis Division of Bellevue Hospital weekly. This course started June 15th, from 2 to 4 p.m., under the auspices of the New York Tuberculosis and Health Association.

The program of lectures is as follows:

June 15—The History of Tuberculosis. Motion Picture "Peter Meets a Menace."
Dr. Iago Galdston.

June 22—Physical Diagnosis. A talk on percussion and auscultation, with clinical material to bring out the important points in each subject.
Dr. George G. Ornstein.

June 29—A clinical lecture to demonstrate the importance of history taking.
Dr. Foster Murray.

July 6—The Importance of Physical Findings in the Diagnosis of Pulmonary Tuberculosis.
Dr. Grant Thorburn.

July 13—The Various Forms of Pulmonary Tuberculosis.
Dr. James Alexander Miller.

July 20—The Complications of Pulmonary Tuberculosis.
Dr. Edward P. Eglee.

July 27—The Prognosis of Pulmonary Tuberculosis.
Dr. Catherine R. Kelley.

Aug. 3—Treatment of Pulmonary Tuberculosis.
Dr. George G. Ornstein.

THE HEALTH OFFICERS CONFERENCE

The annual conference of the Health Officers of New York State was held in Saratoga Springs on June 28-30, 1927. This conference is official, being provided for by the Public Health Law of New York State. About eight hundred physicians were in attendance, nearly all of whom lived in the Grand Union Hotel as has been the usual custom during recent years. There are obvious advantages in all those in attendance living and dining together, and few places besides Saratoga Springs can offer these advantages. About one-quarter of all physicians outside of the cities of New York State are health officers engaged in the practice of public health and civic medicine, and nearly all are active members of County Medical Societies. The conference may therefore be considered as the annual gathering of the rural physicians. It may also be considered as the section on Public Health of the State Medical Society.

The conference also included the Public Health nurses, who were present to the number of six hundred or more. While the nurses sometimes met in their own sections, they also attended the general sessions. One great advantage of the conference was that of meeting one's colleagues and discussing mutual problems informally while sitting on the cool verandas. The inspiration gained from an exchange of ideas goes far toward maintaining the morale of the health officers. In fact, some health officers say that they continue to serve their communities in order that they may meet their fellows in the annual conventions. The conferences are concrete demonstrations of the deep interest which family doctors take in the practice of public health and civic medicine.

The conference was opened by Dr. Matthias Nicoll, Jr., Commissioner of Health, who gave an informal review of the problems which are now before the State Department of Health. He said that all of these problems could be handled by the local committees more efficiently than by the State Department of Health. The local communities would provide the machinery for doing so. The machinery which is suggested is a county board of health, which has been provided by the Statute Law in existence for over six years. Dr. Nicoll said that a practical budget for a county health department would be from $15,000 to $25,000 a year, one-half of which would be paid by the state. The present health officers would be retained as deputies of the county, and would perform practically the same work that they are now doing. In addition the county health officer and Board of Health would perform the higher duties which the local boards of health cannot perform on account of the lack of funds and the field of work. Dr. Nicoll hoped that a few counties would adopt the plan this year and he promised the assistance of the State Department of Health in starting the work.

The Health Officers Association which is a voluntary association with its own officers, debated the county health officer principle and adopted a sweeping approval of the plans.

The plan of a county health officer has been approved by the Medical Society of the State of New York and has been adopted as one of the objects to be accomplished by the Public Relations Committee.

Dr. Edward McKernon, Superintendent, Eastern Division, Associated Press, New York City, told the health officers how they could secure newspaper publicity. He said that in order to obtain publicity, the health officer must make use of something which is of interest to the people. Items of scientific matter and social progress are not news unless exceptional. To say of a prominent man who is sick that his temperature is 100, pulse 90, respiration 18, is dull news. But it would be news for the doctors to say that the sick man woke up at midnight and asked for a ham sandwich.

The speaker advised the health officer to be on friendly terms with reporters and editors, and to make reporters welcome in their offices. The medical profession was not sufficiently confidential with reporters, but the reporters would always refrain from publishing news which was given them in confidence. The better understanding between doctors and reporters will be of immense value in the cause of public health. Mr. McKernon especially dwelt on the necessity of giving news concerning hospitals, especially regarding their course, number of patients, expenses of hospitals, and plans for enlargement. This need not necessarily be an advertising of the local doctors, but it will be of great aid in promoting a knowledge of the hospital among the people. He also said that the public health was not merely a duty, but it was also a business. If a community cannot afford to have both a mayor and a health officer it should have a health officer. The public is not looking for more rights, but for more freedom from disease and for greater comfort and happiness.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, occupied a prominent place on the program. He spoke of curative medicine in contrast to preventive medicine. He said that curative recognized only the individual, while the preventive is of public importance. The thousand and more health officers of New York State are a great army engaged in public health—an army larger than most doctors realize. The health officers have the opportunity to advise a community in public health and civic medicine and so regain the place which was held by the medical profession in the days of our grandfathers.

Dr. Sadlier described the work of the Public Relations Committee and outlined its work in bringing about cooperation between the trinity of organizations—the family doctors, the boards of health, and lay organizations, and he commended the work of some of the county societies in assuming the leadership in all public health matters.

Dr. Veranus A. Moore, Dean of the New York State Veterinary College, Cornell University, Ithaca, described the prevention of rabies in New York State and the methods for preventing its spread.

Dr. Sanger Brown, 2nd, Assistant Commissioner, State Department of Mental Hygiene, described the work of preventing mental derangements among the school children.

Dr. William H. Park, Research Laboratories, New York City Department of Health, described the prevention and treatment of scarlet fever.

These are examples of the kind of subjects which were discussed at the conference from a practical, rather than a theoretical point of view.

This conference was one of the most interesting and constructive that has ever been held.

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on May 18, 1927, was called to order at 9 P. M., the President, Dr. Friedman, in the Chair.

Election of candidates being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the following membership:

The following eleven doctors were elected to membership: Julius B. Bailen, Julius J. Carucci, Harry J. Cohen, Raphael d'Isernia, Samuel M. Friedland, Barney Lifshey, H. Peter Maue, Judah Minkin, Joshua Schwartz, Schmerl I. Seidenberg, Herbert S. Weichsel.

Dr. Boas, for the Committee on Public Health and Medical Education, reported on the pamphlet advocating periodic health examinations, published under the auspices of the Bronx County Medical Society. The pamphlet is now ready, the cost of printing and distributing same being defrayed by the Bronx Tuberculosis and Health Committee, which has a large supply on hand and will gladly send them to any physician who requests them or mail them directly to the physician's patients.

Dr. Boas also reported that articles have been prepared by a section of the Committee, under Dr. Biloon, particularly on the subject of diphtheria immunization, and arrangements have been made for these articles appearing in the *Bronx Home News* at weekly intervals. The report also dealt with the addresses, motion pictures and radio talks presented on the subject of periodic health examinations.

Dr. Lukin, for the Committee on Medical Economics, reported progress.

The Treasurer, Dr. Keller, emphasized the necessity of the members securing more ads for *The Bulletin.* He appealed to the members for further cooperation.

A report of the Building Committee was received, stating that the building of the Professional Office Building has been resumed, a new Company is responsible for its erection, and it is not known as yet as to whether we can carry out the original contract. Our Counsel will be asked to confer with our Building Committee and representatives of the Professional Office Building.

A report was received from Dr. Weitzner, Chairman of the Social Committee, regarding the problem of the Society group for tennis players.

Dr. Henry Roth, for the Relief Committee, presented the general rules and suggestions adopted by the Committee and appealed to the members for further co-operation.

Dr. Friedman reported for the Committee appointed by the Mayor to take up the question of the reorganization of the Health Department as suggested by the Commissioner of Health. It was moved and carried that inasmuch as this proposal comes from the Commissioner of Health and inasmuch as it is apparently the aim of the Department of Health to keep pace with the needs of the Department, the Bronx County Medical Society go on record as approving the reorganization plan.

Dr. Gitlow proposed the following Amendments to the By-Laws of the Society:

Amend Section 11 (Standing Committee) by adding: "and a Relief Committee consisting of seven members,—the President, Secretary and Treasurer of the Society and four other members."

Add—Section 82 (a)—

"RELIEF FUND AND RELIEF COMMITTEE

"(a) The Society shall maintain a Relief Fund.

"(b) This Fund shall be in the custody of the Treasurer of the Society.

"(c) The Fund shall be administered by the Relief Committee.

"(d) Payments from the Fund shall be made on the order of the Committee or in cases of especial urgency on order from the Chairman of the Committee.

"(e) This Fund shall be maintained for the purpose of aiding members and the families of deceased members who are in need of assistance.

"(f) The Relief Committee shall be the judges of all cases for relief.

"(g) Any member desiring relief shall have to apply to some member of the Relief Committee.

"(h) Relief shall be in the form of a loan covered by a note, which bears no interest, maturity set by the maker, or payable on demand. A note may be renewed.

"(i) A quorum of the Relief Committee, which is a majority, shall be necessary to transact business.

"(j) The Secretary of the Relief Committee shall keep an accurate record of all the transactions of the Committee and shall furnish reports at intervals as necessary and annually."

The President announced that the above Amendments will be voted upon at the next regular meeting of the Society.

The following Resolutions were introduced:

"Whereas, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Seymour Basch, M.D.

"Resolved, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Basch and that a minute thereof be placed on the records of the Society; and be it

"Further Resolved, That a copy of these Resolutions be transmitted to the family of our departed member."

"Whereas, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, Jacob Wisansky, M.D.

"Resolved, That the Bronx County Medical Society record the sense of its loss in the death of Dr. Wisansky and that a minute thereof be placed on the records of the Society; and be it

"Further Resolved, That a copy of these Resolutions be transmitted to the family of our departed member."

The above Resolutions were carried by a rising vote.

The Scientific Program then proceeded as follows:

1. The Treatment of Severe Diabetes with Complications, Alexander Goldman, M.D.
2. Problems in Metabolism for the Practitioner, George Baehr, M.D.

It was moved and carried that a vote of thanks be extended to the readers of the papers of the evening.

I. J. Landsman, M.D.,
Secretary.

A regular meeting of the Bronx County Medical Society, held at Montefiore Hospital, on June 15, 1927, was called to order at 9 P. M., the President, Dr. Friedman, in the Chair.

The following new members were elected: Emma L. Bellows, Alfred Eichenberg, Nathan Benjamin Feinberg, Minna Feldblum, Martin F. Hession, Harry S. Pizer, Arpod Revay, William L. Wintraub, Dominick F. Zetena.

The Secretary read the proposed amendments to the By-Laws of the Bronx County Medical Society as introduced at the May meeting: Amend Section 11 (Standing Committees) by adding:

"and a Relief Committee consisting of seven members—the President, Secretary and Treasurer of the Society and four other members."

Add—Section 82 (a)—

"Relief Fund and Relief Committee

"(a) The Society shall maintain a Relief Fund.

"(b) This Fund shall be in the custody of the Treasurer of the Society.

"(c) The Fund shall be administered by the Relief Committee.

"(d) Payments from the Fund shall be made on the order of the Committee or in cases of especial urgency on order from the Chairman of the Committee.

"(e) This Fund shall be maintained for the purpose of aiding members and the families of deceased members who are in need of assistance.

"(f) The Relief Committee shall be the judges of all cases for relief.

"(g) Any member desiring relief shall have to apply to some member of the Relief Committee.

"(h) Relief shall be in the form of a loan covered by a note, which bears no interest, maturity set by the maker, or payable on demand. A note may be renewed.

"(i) A quorum of the Relief Committee, which is a majority, shall be necessary to transact business.

"(j) The Secretary of the Relief Committee shall keen an accurate record of all the transactions of the Committee and shall furnish reports at intervals as necessary and annually."

It was suggested that Paragraph (e) of Section 82 (a) be amended to read: "This Fund shall be maintained for the purpose of aiding members; and also the families of deceased members who are in need of assistance." It was moved and carried that the proposed amendment to Section 11 and the addition of Section 82 (a) as amended be adopted, subject to the approval of the Council of the Medical Society of the State of New York.

Dr. Boas, Chairman of the Committee on Public Health and Medical Education, on request of the President, reported that the number of requests for the pamphlets advocating periodic health examinations has been comparatively few, and urged all the members to avail themselves of the opportunity to have these pamphlets sent directly to their patients or to them for distribution by applying to the Bronx Tuberculosis and Health Committee, 400 East Fordham Road, Bronx, New York City.

The following resolutions were introduced:

"Whereas, The Bronx County Medical Society having sustained a severe loss in the death of its honored associate, John J. McGlade, M.D.,

"Resolved, That the Bronx County Medical Society record the sense of its loss in the death of Dr. McGlade and that a minute thereof be placed on the records of the Society; and be it

"Further Resolved, That a copy of these resolutions be transmitted to the family of our departed member."

The above Resolutions were carried by a rising vote.

The scientific program, which was principally clinical, then proceeded as follows:

(1) Palliative Radiatherapy in Inoperative Cancer of the Breast, Maurice Lenz.

(2) Some Cases of Nephritis, Sol Biloon.

(3) Chronic Miliary Tuberculosis, Maurice Fishberg.

(4) Two Cases of Severe Chronic Colitis, John L. Kantor.

(5) Pyelography in the Diagnosis of Extrarenal Tumors, Julius Gottesman.

(6) Digitalis in the Treatment of Extrasystoles, Meyer M. Harris.

It was moved and carried that a vote of thanks be extended to Montefiore Hospital and to the gentlemen who presented the cases and reports.

I. J. Landsman, M.D.,
Secretary.

COLUMBIA COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Columbia County Medical Society was held at the Kinderhook Hotel, Kinderhook, N. Y., Tuesday, May 10, 1927, the President, Dr. J. W. Mambert, presiding.

Members present: Drs. Bradley, Collins, Deane, Diefendorf, Galster, Garnsey, Mambert, Maxon, Noerling, C. G. Rossman, Skinner, Shank, Taylor, Tracy, Vedder, Wheeler, and Whitbeck. Dr. L. Whittington Gorham, of Albany, was the guest of the society.

The minutes of the last regular and special meetings were read and accepted as read.

Dr. Garnsey of the Comitia Minora presented the name of Dr. Leon J. Shank, of Kinderhook, for membership. The application of Dr. Shank was unanimously accepted.

The secretary read considerable data pertaining to State Aid of County Public Health laboratories, that he was requested to get at the last special meeting, which was on motion received and placed on file.

After a social dinner the society reconvened and on motion of Dr. Collins the committee appointed two years ago to make a survey of the advisability of a petition to the Board of Supervisors for a County Public Health laboratory, was instructed to confer with the trustees of the Hudson City Hospital, with the object of interesting them in the possibilities of the laboratory being located in the hospital and obtaining their aid in presenting the matter to the Board of Supervisors at their next annual meeting and to report progress at the annual meeting of the society.

The scientific session was unusually interesting and instructive and several members suggested the idea that the society ought to meet every month. Scarlet fever was the subject of an address by Dr. Burke Diefendorf; and Pernicious Anemia by Dr. L. Whittington Gorham, of Albany. Dr. Gorham gave the society the benefit of the latest experiments in diet in the treatment of Pernicious Anemia and illustrated his address by lantern slides and microscopic demonstrations.

Charles R. Skinner, M.D., *Secretary.*

STEUBEN COUNTY MEDICAL SOCIIETY

The summer meeting of the Steuben County Medical Society was held at the Gibson Hotel, Gibson Landing, on June 14th.

A committee was appointed to consider the question of a county health department with instructions to report at the next meeting.

The Scientific program was opened by Dr. N. W. Soble of Rochester with a paper on The Chronic Intestinal Invalid, which was illustrated by lantern slides.

Dr. W. C. Deen of Rochester presented an informal paper on the Graham test for disease of the gall bladder, which was illustrated by X-rays of cases.

WASHINGTON COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Medical Society of the County of Washington was held at the Mary McClellan Hospital, Cambridge, May 24th, 1927, at 4:30 o'clock, with the President in the chair, and seventeen members present.

Dr. Paris presented the following resolution which was unanimously adopted:

"Whereas: The Mary McClellan Hospital is the only hospital in Washington County, and in all respects worthy of our support, be it

"Resolved, That we urge all members of this society and other physicians in this and adjacent counties to recommend the hospital to their patients, and do all in their power to protect its welfare.

The President appointed Drs. Tillotson, Park and Leonard a committee to select a chairman for the Washington County Cancer Research Committee.

A bill for six dollars for flowers to Dr. Heenan was ordered paid.

Dr. Fortuine, Vice-President, presented eleven cases of septicaemia. All of the cases were subjected to a blood culture. All of those showing a streptococci infection died and 85 per cent of those showing a staphylococci died. Mercurochrome was used in some of the cases but with no definite results.

Dr. Leonard read a paper prepared by Dr. H. C. Gordinier and Dr. Thomas Ordway, on Epidemic Encephalitis, based upon a report of fifty cases.

Dr. Holmes read a paper on Polyneuritic Psychoses, noting that alcoholic cases did not recover, but the non-alcoholic made a fair recovery.

Dr. Pashley read a paper on crime and disease, noting that environment of the young developed tastes and desires for crime.

Dr. G. S. Pasquera gave a description of the X-ray findings in chest examinations, and emphasized the importance of history and clinical symptoms in arriving at a diagnosis.

Dinner was served in the hospital. Adjourned.

S. J. BANKER, *Secretary.*

NASSAU COUNTY MEDICAL SOCIETY

A regular meeting of the Nassau County Medical Society was held at the Elk's Club, Freeport, on May 31st, with Dr. William Runcie, President, in the chair.

The Committee on Hospitalization reported that it is making a survey of the hospital conditions in the county, with a view of suggesting the location of new hospitals. The committee was directed to have its report ready for the October meeting.

The delegates to the State Society—Drs. Van Kleck and Fensterer—reported that (1) the resolution on the lay-secretary was referred to the State Committee on By-laws.

(2) The resolution on Post-Graduate work was introduced expressing thanks to the State Society for cooperation by the Committee on Post-graduate Education.

(3) The report of the President of the Second District Branch stressed the importance of the lay-secretary.

(4) Nassau County was among those whose dues were fully paid.

The Committee on Social Functions reported that an outing meeting would be held on June 10, consisting of a shore dinner at the Seashore.

It was moved by Dr. Fensterer that two dollars per member be appropriated from the funds of the Society for the Flood Relief. This will amount to $290.

It was voted that the bills for expenses of the delegates to the State Society be paid.

Dr. Russell L. Cecil of New York gave a talk on "Pneumonia with Relation to the Present Status of Specific Therapy." A plea was made for the use of serum in Type 1. An interesting observation was made that Type 4 seemed to be modified by the use of Type 1 serum. An immunity from one to two years was obtained after serum was used.

The subject of "Fractures of the Skull, Some Clinical Observations" was presented by Dr. Benjamin W. Seaman of Hempstead. The doctor said that a great majority of cases occurred as the result of impact from behind, causing frontal fracture. The treatment consisted of elevation of the depression and spinal puncture for comparison with a subsequent puncture, and for the relief of pressure in the spinal canal.

A. D. JAQUES,
Secretary.

CLINTON COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Clinton County Medical Society was made the occasion of a testimonial dinner to Dr. W. U. Taylor of Mooers, and Dr. W. E. Clough of Plattsburg, in recognition of the fact that Dr. Taylor had celebrated his 75th birthday this year, and Dr. Clough was nearly 70. Attendance, including guests, 33.

The business was for this occasion reduced to a minimum. A resolution was ordered prepared in honor of the memory of Dr. M. D. Briggs, who died in the early part of this year, and who was, according to the original plans, to have been a third guest of honor at this meeting.

Directly after the business meeting a banquet was held at which Dr. George Allen, President of the County Society, acted as toastmaster, and introduced Dr. L. G. Barton of Plattsburg, President of the Fourth District Branch, who spoke on matters concerning the County, Branch, and State Societies; Major A. S. Bowen of Plattsburg Barracks who made a few congratulatory remarks, and was followed by Dr. Joseph A. Lawrence, State Executive Secretary, in the same vein. Next was the speaker of the evening, Dr. John B. Wheeler, Professor of Surgery at the University of Vermont, who was an instructor at the time that Drs. Taylor and Clough were students at this same university. His subject matter was mostly reminiscences of the good old times in the medical schools of fifty years ago, and proved intensely interesting. Among the topics touched were bleeding which was then going out of fashion and being superseded by leeches; the advent of antisepsis, and the objection at first of Dr. Bigelow, the most prominent surgeon of New England at that time, to medical registration; and finally personal anecdotes about the teachers at the University of Vermont in the early eighties.

Dr. Charles M. Burdick, Superintendent of Dannemora State Hospital, presented the guests of honor with suitable tokens of friendship and esteem on behalf of the Medical Society, to which they responded, Dr. Taylor adding to the fund of anecdotes supplied by Dr. Wheeler, after which the meeting adjourned.

QUEENS COUNTY MEDICAL SOCIETY

Following the custom in recent years the May meeting of the Medical Society of the County of Queens was deferred until June and was held as an outing meeting in affiliation with the Medical Association of the Greater City of New York. This year the combined outing was held at the Harbor Inn, Rockaway Park, on June 14th. It consisted of a shore dinner followed by a short Executive Session at which the following applicants, having been approved by the censors, were duly elected to membership:

Active Members

Frederick G. Garttner, M.D., 8135 88th Street, Glendale, L. I.

Anthony R. Giambalvo, M.D., 10143 Woodhaven Boulevard, Ozone Park.

Seth Ransom Jagger, M.D., 410 Amity Street, Flushing, L. I.

Associate Member

Frederick Weldin Splint, M.D., 292 Convent Avenue, New York City.

The scientific program was replaced by an entertainment in keeping with the occasion. This consisted of a travelogue, "Australia and Its Wild Nor-West" illustrated with motion pictures, by M. P. Greenwood Adams of Australia.

The speaker told much of interest about that large but sparsely settled country and showed many pictures of the principal cities and of the wild north-west. Pictures of Melbourne revealed a large city of many beautiful buildings and parks. The motion pictures of Melbourne Handicap, the great horse race of the year, showed a crowd of 130,000 people attending the event. In contrast to the modern cities of Sydney and Melbourne were the pictures of the outlying parts of the island. Particular interest was given to the pearl industry which centered around the town of Broome with its 4,000 population. The pictures revealed divers at work gathering shell oysters and showed how they were opened and inspected for pearls which are in reality a product of the disease of the oyster. The shells of these oysters supply about three-quarters of the world's mother of pearl.

The pictures of the aborigines of the island were particularly interesting indicating as they did their habits and activities. Mr. Adams' presentation was thoroughly appreciated by the 103 members and guests who were in attendance.

THE DAILY PRESS

KEEPING UP WITH THE TIMES

The medical profession is not the only one in which constant study is necessary in order to keep abreast of the discovery of new facts and new methods of their application. The New York *Herald Tribune* of June 2, commenting on the address of Dr. G. E. Shambough before the American Medical Association, calls attention editorially to the intensive training which occupies all the time of the medical students, and contrasts that training with the lack of time and opportunity which confronts the young physician when he enters practice. The inevitable conclusion is that physicians cannot practice medicine and keep up-to-date in a knowledge of new developments. But the Editor says:

"The same wail has been heard from other professions. All branches of learning have acquired these last few years enormous velocities. Engineers and artists, lawyers and business men, all lament that the progress of knowledge since the ending of their college days leaves them hopeless stragglers from the procession. There is no convenient and simple way to keep up with the world; no machinery for rubbing off the rust. The extension departments of the universities do something. But, as Dr. Shambough urged for the medical profession, all the machinery set up so far by the schools falls far short of being enough.

"We wonder whether the solution, so far as science is concerned, does not lie in the amateur scientific society. A few days ago Dr. G. Clyde Fisher, of the American Museum of Natural History, issued a call for persons interested in an amateur astronomical society. Over five hundred responded, indicating an interest by no means small. Another New York organization, the New York Electrical Society, has made a distinguished record for the last three years in supplying this same need for continuing the education of college graduates, or of those by whom a college education was unobtainable."

The leaders of the Medical Society of the State of New York have a keen appreciation of the need of continual study by physicians; and they agree with the Editor that the instruction can best be accomplished through societies,—county societies—for physicians. The Committee on State Society Medical Education is doing a unique piece of work in bringing opportunities for medical study to the physicians in their own towns, instead of compelling them to leave their patients for days or weeks and to undergo the expense of living in a city away from home while they are taking expensive courses.

The medical profession is probably in advance of any other in providing the opportunities for pursuing continuation studies.

FOREORDINATION IN SCIENCE

The scientific world has its debates on fundamentalism and evolution. The theological doctrines of foreordination and free will have their counterparts in the doctrines of heredity and environment. Theology and medicine are in rather close agreement in regard to these opposing principles. The church says that a spark of the Divine Nature exists in every individual and is ready to burst into an inspiring flame when it is placed in the proper surroundings. Medicine says that a child is born with the potentialities of good health which will assert themselves if the man-made environment is favorable. The New York *Tribune* of June 5 discusses this subject editorially and says:

"Inside the very citadel of human life—in what is called the gene—there lurks a devil. This devil of bad heredity we must fight as for our very souls. The genes are the mysterious somethings inside the chromosomes, which carry heredity. Strength, intelligence and other admirable qualities are passed on, in some manner, by these genes. Defects, unfortunately, are passed on similarly.

"A defective gene, such a thing as produces diabetes, cretinism, feeble-mindedness, is a frightful thing. It is the embodiment, the material realization, of a demon of evil; a living self-perpetuating creature that blasts the human being in bud or in leaf. Such a thing must be stopped wherever it is recognized. Admitedly, this recognition is not easy. Science has much to discover before practical applications become possible. Not all the abnormalities of men or women indicate genetic devils deserving to be blocked from propagation. To learn how good genes and evil genes may be recognized and dealt with, each according to its kind, that is the program offered to the science of eugenics, still in the early stages of research.

Modern customs tend to raise the standard of the race. Popularity and financial reward depend on the possession of traits which other people desire to have. Peculiarities and oddities of all kinds are discouraged. Beauty of face and of action catch the mates, and strength of body and character are perpetuated and intensified.

While medical science has hereto dealt almost entirely with environmental conditions. yet more and more the principles of plant and animal breeding are being applied to the human race.

ACUTE MUSCULAR FATIGUE

What happens to muscles during intense activity has been the subject of much research and the complete answer has not yet been given. The subject is discussed in the June 26 issue of the New York *Times* which says:

"Now we know why Pheidippides after the battle of Marathon dropped dead in the agora, after being barely able to gasp out his glad tidings. His body had accumulated an excess of lactic acid that all his panting for oxygn could not remove. So we must conclude from the remarkable experiments conducted at Cornell by Professor A. V. Hill of London—experiments which were begun years ago as part of an investigation in physiology so brilliant that it won the Nobel prize in medicine.

"In his study of the fatigue mechanism that usually restrains the too ambitious spirit, Professor Hill performed miracles in delicate chemical analyses and physical tests. The lactic acid content of animal tissue was determined and its relation to fatigue established.

"The glycogen, or animal starch (of a runner) is converted into lactic acid, which is responsible for his fatigue and which he can remove, during a rest period, only by assimilating oxygen. A runner is constantly in arrears for oxygen. When the deficit amounts to fifteen quarts he collapses, which occurs at 300 yards covered at top speed."

Every machine, living and inanimate, has its limitations imposed by the power available, the elimination of heat and waste products, and the strength of its material. The athletic records probably represent the maximum accomplishments of which the human body is capable without unconsciousness and collapse.

TRACHOMA CURE

Trachoma is an ancient disease that is widespread over the earth, and is "indigenous" among the Indians of the Southwestern part of the United States. The word "indigenous" is a rather loose term, for it implies a lack of knowledge of a condition except that it is prevalent in a particular group or locality. It has long been known that trachoma is an infectious disease, and it is easy to understand why it should be prevalent among Indians of arid regions to whom water for cleansing is almost unknown. The eye is more open to infection than almost any other part of the body, not excepting the nose and throat, for everybody rubs the eye on the first sign of irritation.

However, cleanliness alone will not entirely prevent the spread of trachoma, for the infection will spread among school children who are well supervised provided an infectious case mingles with the other children.

There has been much controversy over the recognition of trachoma. Some specialists call every case of "granulated lids" trachoma, and some schools have excluded such cases unless they receive antiseptic eye drops regularly. When doctors disagree, the people usually take the side which cause them the least annoyance, and in trachoma this means that little or nothing will be along the broad lines of community prevention.

The first step in preventing a disease is usually the discovery of its cause. The exact identification of the infectious germ of trachoma has long eluded scientists, but recently Dr. Noguchi of the Rockefeller Institute has announced the discovery. The New York *Times* of June 17, commenting on the discovery says editorially:

"The logical sequel to Dr. Noguchi's discovery is the scientific study of a practicable method of eliminating trachoma. The opportunity for carrying on part of the research in the field exists in Arizona and New Mexico. The work is more than the Government by itself can carry on. The most that can be hoped is that the Indian Bureau will be able to obtain sufficient appropriations to support the necessary personnel. Scientific research, if attempted, will probably be in the hands of highly trained specialists. Thanks to the work of the Rockefeller Institute in the study of the causes of trachoma, the way is now open for a body of scientists to make experiments in the field which will at the same time hasten the discovery of a permanent cure for trachoma and bring relief to thousands of Indians now threatened with blindness."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

Health Record for Children. By J. Theron Hunter, M.D. Octavo of 52 pages. Baltimore, The Williams and Wilkins Company, 1927.

Medical Science for Everyday Use. By Shields Warren, A.B., M.D. 12mo of 178 pages. Philadelphia, Lea and Febiger, [1927]. Cloth, $2.00.

The Clinical Interpretation of Blood Chemistry. By Robert A. Kilduffe, A.B., A.M., M.D. 12mo of 186 pages. Philadelphia, Lea and Febiger, 1927. Cloth, $2.50.

A Manual of Materia Medica for Medical Students. By E. Quin Thornton, M.D. Second Edition, thoroughly revised. Octavo of 384 pages. Philadelphia, Lea and Febiger, 1927. Cloth, $4.50.

The Elements of General Zoology. A Guide to the Study of Animal Biology, Correlating Function and Structure, with Notes on Practical Exercises. By William J. Dakin, D.Sc. Octavo of 496 pages, illustrated. London [and New York], Oxford University Press, 1927. Cloth, $4.00.

Physicians of the Mayo Clinic and Mayo Foundation. With Portraits. Octavo of 578 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.00.

A Text-Book of Clinical Neurology. By Israel S. Wechsler, M.D. Octavo of 725 pages, with 127 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.00.

The Diseases of Infants and Children. By J. P. Crozer Griffith, M.D., and A. Graeme Mitchell, M.D. 2nd Edition, reset. Two octavo volumes totaling 1715 pages, with 461 illustrations, including 20 plates. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $20.00 net.

The Harvey Lectures. Delivered Under the Auspices of The Harvey Society of New York. Series XXI, 1925-26. By Dr. F. R. Nager, and others. Octavo of 229 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $4.00.

A Practical Treatise on Diseases of the Skin. For the Use of Students and Practitioners. By Oliver S. Ormsby, M.D. 3rd Edition, thoroughly revised. Octavo of 1262 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $11.00.

Diseases of the Digestive Organs. With Special Reference to their Diagnosis and Treatment. By Charles D. Aaron, Sc.D., M.D. 4th Edition, thoroughly revised. Octavo of 927 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $11.00.

A Manual of Gynecology. By John Osborn Polak, M.Sc., M.D. 3rd Edition, thoroughly revised. Octavo of 402 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $5.00.

Bacteriological Atlas. A Series of Colored Plates Illustrating the Morphological Characters of Pathogenic Micro-Organisms. By Richard Muir. 12mo of 134 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.50.

The Ship-Surgeon's Handbook. By A. Vavasour Elder. 3rd Edition. 12mo of 523 pages. New York, William Wood and Company, 1927. Cloth, $3.75.

Practical Nursing. For Male Nurses in the R. A. M. C. and Other Forces. By Colonel E. M. Hassard, A.M.S., and A. R. Hassard. 2nd Edition. 12mo of 407 pages. New York, William Wood and Company, 1927. Cloth, $3.50.

Ultra-Violet Radiation and Actinotherapy. By Eleanor H. Russell, M.D., and W. Kerr Russell, M.D. 2nd Edition. Octavo of 429 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.00.

Tuberculosis of the Lungs. A Practical Guide for General Practitioners. By H. Hyslop Thompson, M.D., and A. P. Ford, M.R.C.S. Octavo of 179 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.00.

Gynecological Diagnosis and Pathology. By A. H. F. Barbour, M.D., and B. P. Watson, M.D. 3rd Edition, reprinted. Octavo of 223 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.00.

Tuberculosis Pulmonaire Tuberculose des Séreuses. Par le Docteur Pierre Pruvost. 12mo of 446 pages, illustrated. Paris, Gaston Doin & Cie, 1927. Boards, 30 Francs. (Les Consultations Journalières.)

Les Stupéfiants. Par le Docteur R. Porak. 12mo of 348 pages, illustrated. Paris, Gaston Doin & Cie, 1927. Paper, 18 Francs.

Obstetrics for Nurses. By Joseph B. De Lee, A.M., M.D. 8th Edition, revised. 12mo of 635 pages, with 266 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $3.00.

History of Cardiology. By Louis Faugères Bishop, M.A., M.D. and John Neilson, Jr., B.S., M.D. With an introduction by Victor Robinson, Ph.C., M.D. Octavo of 71 pages, illustrated with portraits. New York, Medical Life Press, 1927. Cloth, $5.00.

Proceedings of the Nineteenth and Twentieth Conferences of the American Association of Medical Milk Commissions. In Conjunction with the Certified Milk Producers' Association of America. Nineteenth Annual Conference held at Atlantic City, N. J., May 25 and 26, 1925. Twentieth Annual Conference held at Dallas, Texas, April 19 and 20, 1926. Octavo of 340 pages. Brooklyn, N. Y., 1926.

The Fifth Avenue Hospital Clinics. First Series. Based on the Material from the Semi-Monthly Staff Meetings, 1925. By the Editorial Board. Octavo of 336 pages, illustrated. New York, Paul B. Hoeber, Inc., 1927. Cloth, $5.00.

The Medical Clinics of North America. Vol. 10, No. 5, March 1927. (Boston Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

BOOK REVIEWS

The Escape from the Primitive. By Horace Carncross, M.D. Octavo of 348 pages. New York and London, Charles Scribner's Sons, 1926. Cloth, $2.50.

In this book the author describes the evolution of the mind of modern man through the various stages of its development. He begins with a discussion of the family, treating it under the heading of The Great Complex. He then pursues a direct course, discussing such subjects as Mother Nature, Chance or Purpose, Instinct and Intelligence, Free Will and Fate, and finally Responsibility. In the second part, he treats of the mentality of the primitive man, and elaborates upon Magic, Father God, Primal Trends, and finally the New Dispensation, in which he discusses the genesis of modern theology. In the last part of the book, he traces the mental development of modern man, and analyzes the components of reality, love, ego, etc. The subject is dealt with in a comprehensive, philosophical manner, and is a real contribution to genetic psychology.

Irving J. Sands.

An Introduction to the Practice of Preventive Medicine. By J. G. Fitzgerald, M.D. Assisted by Peter Gillespie, M.Sc., C.E., and H. M. Lancaster, B.A.Sc. 2nd Edition. Octavo of 792 pages, illustrated. St. Louis, The C. V. Mosby Company, 1926. Cloth, $7.50.

This the second edition of Dr. Fitzgerald's work follows closely the material in the first edition. However, it has been brought up to date by covering recent advances in preventive medicine.

The book is an admirable text for undergraduate medical students, if the contents is supplemented by lectures, demonstrations and laboratory work; otherwise many subjects are covered too briefly. Dr. Fitzgerald reflects the Canadian viewpoint regarding active immunization to diptheria in that he almost ignores the use of toxin-antitoxin for this purpose and lays all the stress on toxoid. He at least leaves the inference that toxin-antitoxin contains elements of danger; this is not borne out by the work of Park who has had the largest experience with toxin-antitoxin. Furthermore, ft seems to us that instead of giving the most important place in diphtheria prevention to active immunization the author almost makes it secondary to other means. Undoubtedly this was unintentional and we hope that in subsequent editions this will be corrected which is possible by a slight rearrangement of the text.

In dealing with rabies no mention is made of canine vaccination as a means of control nor is the Semple method of Pasteur treatment described. This method using as it does a killed virus has less danger than the original Pasteur treatment, but of most importance is the fact that the Semple vaccine is stable while the attenuated virus is perishable.

The chapters on water, community sanitation, maternal and infant mortality are especially to be commended.

E. H. M.

De Lamar Lectures 1925-1926 (Johns Hopkins University—School of Hygiene and Public Health). By David Marine, and others. Octavo of 220 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $5.00.

This is a collection of thirteen popular lectures on various subjects especially of interest to sanitarians and public health officers. The prominence of the lecturers, the subjects treated, and the place where the lectures were delivered, insures the reader of this volume much instruction as well as interest.

Dr. David Marine of the Montefiore Hospital treats on "The Prevention of Simple Goiter"; Professor Alice Hamilton gives the latest data on Industrial Toxicology in the United States; Dr. F. C. Wood lectures on "The Necessity of Education in Control of Cancer"; Dr. Frederick W. Sears on Rural Hygiene; Thomas Adams on Industrial Housing; Dr. W. G. Smillie on Hookworm Infestation; Dr. Edward R. Baldwin on Diagnosis of Tuberculosis; Dublin on Body Build and Longevity; Dr. Goldberger on Pellagra; Dr. Stockard on Constitutional Types in Relation to Disease; Dr. LoGrasso on Heliotherapy in Treatment of Tuberculosis; R. B. Stoeckel on Motor Vehicle Accident Prevention, and Newsholme on William Farr.

It is to be regretted that it is impossible in a brief space to give even a resumé of tne wealth of material and new thoughts with which the volume abounds. Dr. Hamilton's recent advances in industrial toxicology are especially of interest in view of the fact that the study of this subject is still in its infancy in this country. Dr. Hamilton briefly dwells on the toxicology of tetraethyl lead and states that "the danger involved in the production of this product and the process of mixing it with gasoline is abundantly proved" and hopes later that proper safeguards will be taken to prevent intoxication by it. Dr. Hamilton also mentions the latest researches which seem to show that the action of silica particles in the lungs is not of a physical mechanical character, but rather of a chemical and therefore toxic character, and perhaps we should include silica dangers under the industrial poisons.

Professor Stockard's lecture on "Constitutional Types in Relation to Disease" is very illuminating and stresses the idea of the need of knowledge by the physician of the constitution of the patient in his efforts to control and alleviate disease.

G. M. P.

Modern Medicine. Its Theory and Practice in Original Contributions by American and Foreign Authors. Edited by Sir William Osler, Bart., M.D. Third Edition, thoroughly revised. Re-edited by Thomas McCrae, M.D. Assisted by Elmer H. Funk, M.D. Volume 4. Diseases of the Respiratory System—Diseases of the Circulatory System. Octavo of 1011 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $9.00.

Volume IV of this edition of Modern Medicine is devoted to a consideration of diseases of the respiratory system (except pneumonia and tuberculosis) and diseases of the circulatory system. A proper balance is struck, although the allotment of 200 pages for Maude Abbott's chapter on congenital cardiac disease seems excessive, as only 625 pages are available for the second part of the volume.

There is much material of value presented by the distinguished contributors. The press work is splendid and errors conspicuous by their infrequency. Rackemann is manifestly wrong in stating on page 96 that Bethlehem, Bretton Woods and Dixville Notch are at an elevation of 4,000-5,000 feet. The elevation is certainly not greater than 1,400-1,500 feet. He also fails to mention the Chinese drug Ephedrin in the treatment of bronchial asthma.

The average excellence of the chapters is very satisfying. F. T. Lord is outspoken in saying that primary dry pleurisy as well as serofibrinous effusion should be regarded as tuberculous in the vast majority of cases, and quotes his experience in treating pleurisy with effusion when the fluid was turbid and containing an excess of polymorphonuclear cells: of 27 cases, 15 were cured by thoracentesis alone. His description of the Koranyi-Grocco paravertebral triangle of dullness is good.

Landis' discussion of the antagonism of the diaphragm and the intercostal muscles clearly states present day opinion (page 335).

The introductory chapter to the Section on Circulatory Diseases is by Hoover who pleads for us to use our fingers more lest we become "witless servants of our instruments." He urges direct percussion with the tip of the extended finger in outlining the heart. His presensation of the estimation of the heart's volume, hepatic displacement, air hunger and slumber apnea is very thorough.

McPhedran (page 370) emphasizes that if pericardial effusion is slow in formation, it is rarely embarrassing to the heart even if very large.

Lewis' rules for the administration of quinidine in fibrillation (page 419) are very valuable and constitute the best guide to its use that the reviewer has yet seen. He proposes every safeguard, but even then warns against the possibility of embolism. Hemoptysis, venous engorgement and much enlargement of the heart are to be considered as definite contraindications to its use.

If the other volumes of this edition are the equal of this one, Modern Medicine has maintained its high ranking.

Frank Bethel Cross.

The Enlarged Prostate. By Kenneth M. Walker, F.R.C.S. Octavo of 193 pages, illustrated. London and New York, Oxford University Press [1926]. Cloth, $4.00. (Oxford Medical Publications).

This is one of the best *little* books we have ever read. The arrangement is excellent, the illustrations are good and, in the brief space of less than two hundred pages the writer has condensed a very complete survey of all the up-to-date knowledge of this very important subject. It is based largely upon his own experience but there are numerous references which will facilitate the reading of anyone who wishes to delve further into any particular phase.

It is written in such a way as to be of great interest and definite value to the student, the general practitioner, the general surgeon or the urologist and is heartily recommended to any or all of these groups.

N. P. R.

Symptom Diagnosis: Regional and General. By Wilfred M. Barton, A.M., M.D., and Wallace M. Yater, A.B., M.D. Octavo of 851 pages. New York and London, D. Appleton and Company, 1927. Cloth, $10.00.

As expressed in the preface, this is a ready reference volume to be consulted while the patient is still in the physician's office. It considers all the possibilities that may account for the patient's symptoms or the physical findings. There is a short description of the chief signs mentioned under each disease.

This is a type of book for which there has been a great need. As such it should receive a hearty welcome from every physician regardless of his specialty, for there is no branch of medicine which is not included between its covers.

H. J.

A Primer for Diabetic Patients. A Brief Outline of the Treatment of Diabetes with Diet and Insulin, Including Directions and Charts for the Use of Physicians and Planning Diet Prescriptions. By Russell M. Wilder, M.D. 3rd Edition, reset. 12mo of 134 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $1.50.

The third edition of this manual has been revised and some of the sections enlarged. It is one of the most useful volumes for the use of the patient and saves the physician a good deal of the trouble of instruction.

Perhaps the most interesting part for the physician is that which deals with the planning of diet prescriptions. The author believes that the fear of fat has been largely overcome by the success of the high fat diets of Petren, Newburgh and Marsh and himself. Three sample diets are given, the first of 2,000 calories, of carbohydrate 74 grams, protein 50 grams, fat 167 grams and sugar value of 120 grams. This has a fatty acid to glucose ratio of 1½ to 1. The second diet is of 2,250 calories, C 70, P 50, F 196, sugar value 120 and fatty acid to glucose ratio of 1⅔ to 1. The third diet of 2,500 calories contains C 68, P 50, F 226, sugar value 120 and has a fatty acid to glucose ratio of 1⅚ to 1.

High fat diets were being more and more used until insulin came along and made them less necessary. When one had a choice between hyperglycemia and glycosuria, undernutrition to the point practiced by Allen or a high fat diet along the lines of those of Newburgh and Marsh, the last seemed to many the most desirable unless proven dangerous and wrong in principle.

The first diet of Wilder which is moderately high in fat but comes within the ratio of fatty acid to glucose of 1½ to 1 is probably the type most generally used at the present time.

W. E. McCollom.

The Conquest of Disease. By Thurman B. Rice, A.M., M.D. Octavo of 363 pages, illustrated. New York, The Macmillan Company, 1927. Cloth, $4.50.

Doctor Rice's work is interesting reading to a physician but to a lay person it is thrilling, instructive, and fascinating. It fell into the hands of a female member of our family and she said it beat most of the modern best-seller novels. She read the book at two sittings.

We began to read it intending to skip through the pages as a stone skims the surface of a pond and found ourself reading the pages without jumping a paragraph or a word.

When we finished we felt repaid for the time spent and voted Dr. Rice a sincere expression of thanks and appreciation for being permitted to read his effort. We cannot understand why the firms that syndicate stuff to the newspapers of our land do not get on to such works as The Conquest of Disease and offer it to the masses in small doses. We are sure it would take and the demand for continuous articles would be insistent.

Quickly—Part I deals with Ye Good Olde Days (a gem), The Scientific Conquest of Transmissible Disease, The Cause of Transmissible Disease, Infection and Resistance, and How We "Catch" Disease.

Part II deals with The Transmissible Diseases and Their Prevention. Subdivision A deals with Disease Spread by Intestinal Discharges and B, Saliva Born Diseases. C, The Insect Born Diseases; D, Diseases Transmitted to or Through the Skin or Mucous Membranes; The Contact Diseases.

Part III—The Means by Which Transmissible Diseases are Controlled.

We recommend you buy a copy, read it, then give it to your wife to read, and she'll give it to the other members of the family. All will enjoy it. It is the type of thing the public should know more about.

T. S. W.

Manual of Operative Surgery. By Sir Holbert J. Waring, M.S., M.B. Sixth Edition. 12mo of 868 pages, illustrated. London and New York, Oxford University Press [1927]. Cloth, $5.25. (Oxford Medical Publications).

This little manual of Operative Surgery containing eight hundred and fifty-two pages and six hundred and eighteen illustrations is as complete as any small work dealing with this subject could be.

Many types of operative procedure covering every region of the body are included, and described in a brief and thoroughly comprehensive manner.

For the surgeon this small volume should prove invaluable for a quick review of an impending operative procedure.

R. F. H.

The Elements of Medical Treatment. By Robert Hutchinson, M.D. 12mo of 163 pages. New York, William Wood and Company, 1926. Cloth, $3.00.

This volume of one hundred and sixty pages based upon the author's lectures at the London Hospital on elementary therapeutics and the principles of treatment, contains much useful information carefully prepared and presented. "The book merely aims at setting out principles and their application to the commoner forms of disease met with in practice, special attention being given to the prescription of drugs."

The author gives some general principles in the treatment of disease and then describes briefly, with special consideration and treatment, such conditions as fever, pain, insomnia, heart failure, bronchitis, anemia, hypertension, nephritis, diabetes, endocrine treatment, psychotherapy and some of the so-called minor medical operations as paracentesis, thoracentesis and vivisection.

It seems hardly possible that so much useful, accurate information can be presented in so small a volume. The treatment is not always the same as that followed in different countries but it is good. Many of the useful non-medical procedures in medical treatment are presented here. This is an instructive volume.

Henry M. Moses.

Diseases of the Heart. Their Diagnosis, Prognosis, and Treatment by Modern Methods. By Frederick W. Price, M.D. Second Edition. Octavo of 534 pages, illustrated. London and New York, Oxford University Press [1927]. Cloth, $6.20. (Oxford Medical Publications).

Within the scope of 500 pages Price has presented a condensed consideration of modern cardiology.

The volume is complete and reflects great credit upon the author. He was associated with Mackenzie for several years and the master's views are reflected throughout the book, but Price is definite in his own observations, and the personal pronoun is advantageously used.

The chapters are short, the discussions brief; at times we wish that the author had not denied himself more space, for conciseness can be too concise. References are necessarily scanty.

In outlining the heart preference is expressed for the mediate or indirect method. The direct method and the threshold method are omitted, probably in the interest of simplicity. The polygraph throughout receives true Mackenzian emphasis.

Graham Steell's name is misspelled on page 305; the pen of an Englishman should not slip on the name of this compatriot.

Three fine chapters conclude the book: namely, Anesthesia in Relation to Cardio-vascular Affections, Clinical Electrocardiography, and X-ray Examination. The most representative of 1,500 electrocardiograms were used in illustrating the text and they are particularly well chosen and well printed.

The index is especially thorough for a volume of this size.

Frank Bethel Cross.

The Natural Processes of Healing in Pulmonary Tuberculosis. By Marc Jaquerod, M.D. Translated by J. Denny Sinclair, M.B., Ch.B. Octavo of 107 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $3.00.

This is a short treatise on the pathogenesis of the healing process in Pulmonary Tuberculosis, and while containing nothing but what has been frequently mentioned before, the author stresses certain factors in the process in healing that are well worthy of emphasis. Much has been written in the past on the mechanism of healing by the process of fibrosis and calcification. It is only in more recent times that attention has been called to the fact that a considerable amount and degree of healing may occur through the simple process of resolution. Dr. Jaquerod writes most convincingly, especially on this latter phase, and supports his reasoning by the display of a number of most excellent rontgenographical reproductions.

We heartily commend this book to all students of Tuberculosis and to all general practitioners of medicine.

Foster Murray.

A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology. By Torald Sollmann, M.D. Third Edition, entirely reset. Octavo of 1,184 pages. Philadelphia and London, W. B. Saunders Company [1926]. Cloth, $7.50.

This third edition of this well known work has been made to conform with the new Pharmacopoeia and otherwise revised to include more recent conceptions of the pharmacologic actions of the commoner drugs. Sollmann's book has long been an accepted standard on pharmacology, and the present issue maintains the reputation of its predecessors.

As a comprehensive, up-to-date treatise on pharmacologic action of the Materia Medica, this work is all that is to be desired.

M. F. De L.

Medical Science for Everyday Use. By Shields Warren, A.B., M.D. 12mo of 178 pages. Philadelphia, Lea and Febiger [1927]. Cloth, $2.00.

This is a revised and rewritten collection of a series of articles which appeared for a number of years in the Sunday edition of a Boston newspaper. Some of the things touched upon are: The Growth of Children, Work and Exercise, Diet and Obesity, Sleep and Sleeplessness, The Way Germs Work, Diabetes, High Blood Pressure, Hay Fever, and Cancer. Such work is midway between the successful and often quite reliable newspaper articles and the scientific text books for the medical student and physician, and such a book unquestionably will do a great deal toward educating the public along modern medical lines, and combating the pernicious propaganda which at the present time is emanating from the tabloid newspapers.

W. H. D.

Mineral Waters of the United States and America Spas. By William Edward Fitch, M.D. Octavo of 799 pages, illustrated. Philadelphia and New York, Lea and Febiger, 1927. Cloth, $8.50.

The United States has at no time given as much attention to the therapeutic value of the mineral waters as has been done in Europe. There is considerabe differences in opinion as to the value of mineral waters used externally and taken internally in the treatment of disease. However, no harm can be done by putting the information regarding the mineral water resources of this country on a scientific and authoritative basis.

It is rather striking to note that in this volume, 425 active spring areas with analyses of 871 springs are described; while 424 springs are mentioned which sell water commercially, and 240 springs which were popular resorts half a century ago, but which have fallen into desuetude.

The text is divided into four parts. In the first, on the Classification of Mineral Waters there are given the solid, gaseous content, dosage and physiological action; the second part, Crounotherapy; third, Balneotherapy; and the fourth, Classification of the Mineral Waters of the United States by States.

A work of this kind will do much to enable the physicians of this country to decide whether hydrotherapy is of service to them and to their patients.

W. H. D.

FOUR THOUSAND YEARS OF PHARMACY. An Outline History of Pharmacy and the Allied Sciences. By CHARLES H. LAWALL, Ph.M., Phar.D. Octavo of 665 pages, illustrated. Philadelphia and London, J. B. Lippincott Company [1927]. Cloth, $5.00.

If we were on a committee to choose a "Book of the Month" for Physicians, we would vote this work of Dr. LaWall's at the head of the list. We suggest every physician own Garrison's History of Medicine and La Wall's Four Thousand Years of Pharmacy.

It is a book of 665 pages with 64 illustrations. It is a book every physician will find rare reading, full of interesting surprises, and sure to increase his culture and appreciation of his medical background.

In the space allotted us we can only offer an outline of the Contents:

Ancient Pharmacy and Its Earliest Side-Line—Medicine. Science in Embryo.

Pharmacy during the Greek, Alexandrian, and Roman Periods. The Kindergarden of Science.

The Arabians Preserve the Pharmaceutic Art and Carry the Torch of Professional and Scientific Knowledge from the 6th to the 13th Centuries.

Medieval Pharmacy and Alchemy from the time of Roger Bacon to the 15th Century.

Pharmacy During the Famous 15th Century. A Century of Alchemistic Frenzy. Beginning of the Renaissance.

The Glorious 16th Century in Pharmacy. The Century of Paracelsus Pharmacy and Science.

The Century of Famous Pharmacopoeias and Notable Characters. The Golden 17th.

The Progressive 18th Century. Pharmacy Ascendant. The Birth of Chemistry. The Beginnings of Modern Science.

The Recent 19th Century. The Development of Pharmacy in America.

The Present 20th Century. Whose History Cannot be Written.

There is a Biblography, a Chronological Table and 32 pages in the Index.

The Illustrations are excellent.

T. S. W.

X-RAY DIAGNOSIS. A Manual for Surgeons, Practitioners and Students. By J. MAGNUS REDDING, F.R.C.S. Octavo of 228 pages, with 80 Skiagraphic plates. New York, William Wood and Company, 1927. Cloth, $7.00.

As the name succinctly states, this book is devoted exclusively to X-ray interpretation with enough of the clinical picture only to evaluate the findings. It is written essentially for the student and general practitioner and on many topics serves to whet the appetite for further study.

The subject is presented in non-technical yet systematic style and the more important conditions solvable by X-ray are well considered. The absence of theory and terseness of thought make the style alluring and interesting.

A didactic presentation—excellent for students, is essentially maintained with tabulation of pathological findings, text-book in style.

As with most authors, the older anatomical nomenclature is employed. It is, however, regrettable such confusion exists in naming osseous growths that our English contemporaries employ the term myeloma—to our giant cell tumor. Would that our American Registry of Bone Sarcoma become universal, so that we might all talk one tongue and finally make order out of present chaos.

Indications and limitations of the fluoroscope are well presented and the importance of proper interpretation is well emphasized. Illustrations are profuse and for the most part good.

For those wishing a ready reference, brief and accurate, it is to be recommended and should therefore find favor with the vast majority of our profession.

MILTON G. WASCH.

DISEASES OF THE INTESTINES. By A. P. CAWADIAS, O.B.E., M.D. Octavo of 299 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

The writer of this little English work presents his subject in a rather novel way. Instead of the usual lengthy description of the various diseases of the intestines, he has taken as the basis of his study the "Syndrome," which he defines as "a group of symptoms and signs corresponding to a certain deviation of the function of an organ or to a lesion of an organ." The first chapter on the "Medical Anatomy of the Intestines" is a masterpiece of brevity and clearness.

The subsequent chapters are each devoted to discussion of a syndrome, its various causes and appropriate treatments. "The Intestinal Dyspepsias from Inefficiency of Enzyme Action" makes an interesting chapter. "Inflammatory Syndromes" include entero-colitis, typhlo-colitis and sigmoido-proctitis. "Localized Inflammatory Syndromes" include appendicitis, sigmoido-diverticulitis, proctitis typhlitis and colitis. "Motor Syndromes" include organic colon stasis, functional colon stasis, stenosis of small intestine, intestinal obstruction and functional diarrheas. "Vascular Syndromes" include hemorrhoids and arteritis. The last few chapters are devoted to "Special Syndromes" including duodenal ulcer, intestinal cancer and intestinal worms.

While the handling of the subject is interesting, and in some ways may aid in the study of intestinal diseases, yet a few of the subjects treated show either a lack of familiarity with the diseases mentioned or a somewhat antiquated viewpoint. On the whole however, the book can be recommended as a valuable addition to any library on gastro-enterological subjects.

A.

INDEX AND HANDBOOK OF X-RAY THERAPY. By DR. ROBERT LENK. With a foreword by PROF. HOLZKNECHT. Translated by T. I. CANDY, M.B., B.CH. 12mo of 121 pages. London and New York, Oxford University Press [1926]. Cloth, $2.25. (Oxford Medical Publications).

As the name implies, this brochure is a true index covering alphabetically all types of cases amenable to radiotherapy. The first edition was translated into the Italian, Hungarian, Russian and Japanese languages and our thanks are now due to Dr. T. I. Candy for the English translation of the second edition brought up to date.

Dr. Lenk is a product of the Viennese school, associated with the redoubtable Holzknecht whose method of dosage is employed throughout.

The index is compiled essentially for the general practitioner as a guide for those cases most suitable for radiotherapy—the general X-ray reactions one is to look for—a forecast as to the prognosis and suggestions as to the probable duration of the disease and the number of treatments required.

For the specialist formulae of dosage are given in concise form, covering the various diseases, employing the prescription style of Holzknecht.

It is a book which should become increasingly popular, as it offers not only useful advice as to those diseases, the efficacy of X-ray therapy for which is beyond question, but discusses many conditions in which X-rays are now being employed, heretofore not considered at all amenable.

The handbook should be on every practitioner's shelf, as a glance will locate the disease sought and concisely state what can be anticipated by the employment of this type of modern radiotherapy.

MILTON G. WASCH.

OUR NEIGHBORS

APPENDICOSTOMY

The April number of *California and Western Medicine* has a series of brief articles on the irrigation of the large intestine through the appendix. This procedure came up about ten years ago but is now almost discarded.—EDITOR'S NOTE.

"Dr. P. K. Gilman.—Fixation of the appendix in the abdominal wall and using it as a fistula for irrigation of the colon was first performed by Weir. This comparatively easy operation suffered a not uncommon experience of a new surgical procedure. Enthusiasts, ignorant of or ignoring the mechanical and physical fundamentals of the diseased region to be influenced, popularized appendicostomy. This popularity waned deservedly, the pendulum swinging too far, however, as it had previously swung too far in favor of the operation. While the indications justifying appendicostomy are comparatively rare, I feel that there is still a place for this therapeutic aid.

"Introduced for purposes of lavage of the large bowel and for the introduction of drugs we now know this purpose to be readily accomplished by rectal administration. The X-ray has shown us that fluid injected from below promptly and completely reaches all parts of the large bowel. However, in certain intractable amebic infections of the colon where oral and rectal medication have failed, prompt improvement has followed an appendicostomy and the introduction of medicaments. This improvement may be due to the fact that the drugs reach the lining of the appendix in greater concentration than is possible by rectal administration and thus put a stop to renifection of the large bowel from the appendiceal mucosa. Also appendectomy by removing this focus might have in these patients accomplished the same result as it did in others where removal was done instead of appendicostomy. Be that as it may, I believe in carefully selected patients with intractable amebic colitis appendicostomy is not troublesome but easily cared for as the normal direction of peristalsis toward the cecum and the valve-like character of the opening into the bowel prevent escape of cecal contents, while lavage through it is simple enough to permit the patient to carry this out.

"In nonspecific colitis where the object is not lavage but rest of the colon by diversion of the fecal stream, the operation is useless. Similarly the operation fails when performed to allow lavage in chronic constipation. Here the effect is but temporary and possesses no advantage over properly performed colonic irrigations.

"Dr. Rea Smith.—The two indications usually given for appendicostomy are (1) irrigation for *medication* of the colon, (2) *bowel drainage* for rest or relief of obstruction.

"It seems to me that there is no sound physiological basis for its performance for medication. The bowel is provided with a mechanism for peristalsis and reverse peristalsis, and if unobstructed, irrigation from the rectum will reach any part of the colon as easily as though the appendicostomy opening.

"The patients who do not clear up after ordinary lavage and which seem to demand appendicostomy for medication of the colon are those with a partial obstruction in the ascending colon and a dilated, toneless cecum. If surgery is indicated, to my mind it should be directed toward the relief of the obstruction and restoration of the normal peristaltic waves, rather than opening the appendix. The tying of the cecum to the anterior wall by appendicostomy in itself interferes with the bowel's emptying and tends to produce a cecal stasis, so that after the appendicostomy has closed the patient is very likely to carry during the rest of his life a crippled cecum which fails to empty properly.

"Cecostomy, in my opinion, is a much better operation than appendicostomy for the purpose of bowel drainage in instances of complete obstruction lower down, especially as a preparatory measure for a radical removal of the obstruction after relief of toxemia.

"In short, I believe that appendicostomy for medication is an unnecessary procedure likely to be followed by rather serious complications, and that cecostomy is a better and surer operation for bowel drainage when that is indicated, so that I can see no surgical indication for its performance.

"Dr. Harrison W. Jones.—Every operation performed should bring satisfaction to both surgeon and patient. I have had a reasonably large experience with operative drainage of the intestinal tract and have used appendicostomy for both medication and drainage. The medical patient was one of amebic infection that had resisted all forms of medication by oral administration. I decided to fix the appendix in the abdominal wall, open it and thus

(Continued on page 814, adv. xii)

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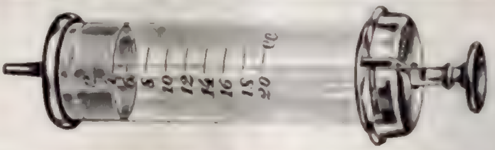

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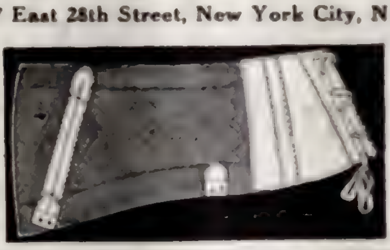

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(*Continued from page 812*)

administer medicine and irrigation direct
This treatment was continued religiously
three months with no aparent results. A
last resort I did an appendectomy and f
lowed with oral medication which brou
about a permanent cure at the end of f
months.

"My patients in whom appendicostomy
cecostomy was performed for obstruction
twenty-six. In five the appendicsotomy w
done for the purpose of drainage. None
them drained properly, and I had to resort
cecostomy in order to get sufficient drain
that my patient might make sufficient pr
ress to make him at least a fair risk for a r
ical operation. In the remainder I did a cec
tomy and have abandoned appendicosto
entirely and have been highly pleased w
the procedure.

"*Dr. H. H. Searls.*—The operation of app
dicostomy is rarely indicated. A search
the records of the University of Califor
Hospital shows but one patient on whom
was performed. A native of Tahiti, sufferi
from an aggravated and obstinate amebic d
entery, after many weeks of medical tre
ment, finally only gained relief following
pendicostomy by Doctor Terry. Irrigat
with quinin bisulphate and later with dil
thymol through the fistula thus establish
was followed by arrest of the severe dysente
and a corresponding improvement in the
tient's general condition.

"The modern trend of surgery, however,
away from the once popular operation of
pendicostomy; cecostomy, permitting the
troduction of a larger tube, being used in pl
of it, both for medication of the large bo
and for relief of low obstruction. For the
ter condition appendicostomy is nearly alwa
a failure. In such a condition as that fo
in the patient above cited I feel that app
dicostomy is justifiable and indeed proved
value. It has one point in its favor over cec
tomy in that termination of the fistulous tract
appendectomy is far easier than the closure of
cecostomy opening."

THE HEART'S SONG

The May issue of the *Rhode Island Med
Journal* contains the following poem by a phy
cian author who modestly withholds his name
The Editor.

Systole-diastole the whole day through.
In a never-ending sequence
While you live by what you do;
With your life blood passing through me
In a cadence like a song.
Systole diastole the whole day long.

stole-diastole the long night hours,
ile you rest I still am working,
ough I'm garnering my powers
r the efforts of the morrow,
r the travail and the fight,
stole-diastole through all the night.

stole! Diastole! is it fear or is it rage!
perchance 'tis joy that keeps me
ocking 'gainst my bony cage.
u can sense my throbbing tumult
as keen as joy or fear
stole! Diastole! when your mate is near.

stole! Diastole! you are prostrate on your bed
d the poisoned torrent rushes,
uding brain and aching head
your ally in extremis,
hting foetid fever's powers
stole! Diastole! oh the long hours.

stole-diastole now the race is almost run
ng the years we've toiled together
the shadow and the sun;
y the germ cells of our offspring
rry what of us is best.
stole-diastole, systole-diastole, The Rhode Is-
and REST!

PALEO-PATHOLOGY

he May issue of *Colorado Medicine* contains
following editorial on pathology in an-
nt men and animals.—Editor's Note.

'Dr. F. B. Young of Gering, Neb., gave an
eresting illustrated lecture before the medi-
and dental societies of Denver, April 7th.
discussed the pathology existing in prehis-
ic and extinct animal life. His studies have
obvious reasons been limited to osseous
uctures. He is able to demonstrate lesions
ulating fractures, callus formation, non-
ion, ankylosis, myositis ossificans, osteosar-
na, osteomylitis and pyorrhea.

'Such findings will doubtless contribute lit-
if anything to the advance in the treatment
bone lesions. To the student of physiology
l pathological physiology it is a profoundly
eresting fact that animal life was beset with
ilar accidents and diseases and was appar-
ly dependent upon the same mechanism of
air as has become so well understood in
ent years. Conditions of recovery and cer-
n well-known aids have been added and
proved but the 'impulse to get well' is cons
. Such considerations are as humbling to
r conceit as they are consoling to our short-
nings. According to this story written in

(Continued on page 816)

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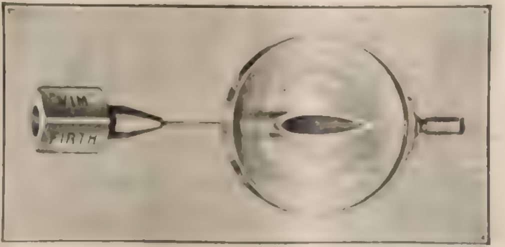

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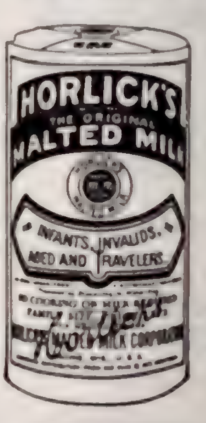

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RACINE, WISCONSIN

(Continued from page 815)

stone, the need of the doctor antedates hi appearance by millions of years.

"Dr. Young is to be congratulated on hi extra medical work. He represents in his stud of paleontology a rapidly growing group o physicians who are interested in other tha merely the practical phases of our scienc Prehistoric medicine, origins and developmen of the healing art, the relation of physic t the world's fund of knowledge—these an many other subjects—while not adding muc to the effectiveness of office consultations o house calls, are worthy of the attention of an educated man and notably of any physicia Such studies may eventually have other tha cultural values. Conceivably they may help t bridge the chasm of professional isolation i that they may give cause for the belief tha physicians are scientists in the broadest sens with a special flare for that particular branc of science as related to the practice of medicine."

CONFERENCE OF COUNTY SECRETARIES OF MICHIGAN

The Michigan State Medical Society holds a annual conference of the secretaries of the County Medical Societies. That of April 22, 1925 wa reported in this Journal for August, 1925. Th conference this year was held on April 27, i Jackson, and its proceedings are recorded i thirty-two pages of the Journal of the Michiga State Society. An all-day session was held an a variety of subjects were discussed.

Legislative matters were first brought up an the appeals of the osteopaths to be permitted t practice all forms of medicine were discussed.

State Secretary, Dr. F. C. Warnshuis, discusse the collection of dues from the county secretarie and left the impression that the secretaries o Michigan are the same that they are in New York However, it is doubtful that the New York Society would spend the good money of the State o such a secretary as is described in the followin paragraph:

> "There is one County secretary—he is not here and I didn't expect him to be here—whom we know at the office. We are wasting money when we write to him. If we want definite information or important data we don't write him letters, we use the long distance telephone. That is the only way we can get the data from that county. Those are just a few of the incidents we have to put up with in regard to correspondence."

Dr. Warnshuis quoted the following letter t show what kind of correspondence comes to hi office:

> "The last letter I received yesterday afternoon was from a certain doctor, a member of one of our larger County Societies who wanted to know our opinion as to whether it would be proper for him to put out a cough mixture, and if he did whether he should put his name on the cough mixture, and if he used his name whether he should precede it with 'doctor' or conclude with M.D., whether it should be patented or not patented, and whether or not he should have the formula filed with the State Medical Society."

The New York State Society would probably refer such a request to the county society where the doctor lives.

The activities of the county societies were discussed by Dr. Corbus, who told of the formation of a committee on public health and education with a membership including the Department of Health, The State Tuberculosis committee, the Nursing Associations, and other public health organizations. This committee helped the county societies to carry on several activities among them being the following:

1. Health talks to the public.
2. Postgraduate courses, both elementary and advanced, for physicians.
3. An interchange of programs between county medical societies concerning which Dr. Corbus says:

> "When you have had good men come before you of your local Society and they have given good talks pick out those men and bring some men in from other communities to give talks before your Society in their place. It has worked out very well in the places where it has been tried. That gives you new ideas, makes a closer contact between the neighboring towns and counties, but sufficient preparation is necessary."

Dr. Knapp speaking for a county that gets out 92 per cent of its membership to society meetings said:

> "We sat down at the December meeting and elected officers and mapped out nine or ten meetings for the year. We wanted a meeting on surgery and medicine and we wanted a meeting on orthopedics, one on public hygiene and so on. We covered the whole of scientific medicine and then we looked around for somebody to fill those subjects.
>
> "I believe that is the only way to do it. I don't think you can just trust to luck and wait until the time comes for the next meeting and then see who you can get. The thing to do is to name your subject and then

(*Continued on page* 818)

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Concerning county society bulletins, Dr. Knapp said:

> "As far as bulletins go, I believe that that is quite important. I think something should be said in every bulletin about attendance. The average doctor doesn't care much, he just comes to the meetings most of the time and tries to tell those who are there why he doesn't come oftener. It seems to me that in a bulletin you can publish and keep a record of the attendance of every member during the year. We do. I have a schedule and I can tell every man whether he has been there 100 per cent during the year or not. I have made up a form, a sort of a class record of every man's attendance in the Society."

The activities of the Women's Auxiliaries were presented by Dr. Caroline B. Crane, who enumerated the following activities of the Auxiliary:

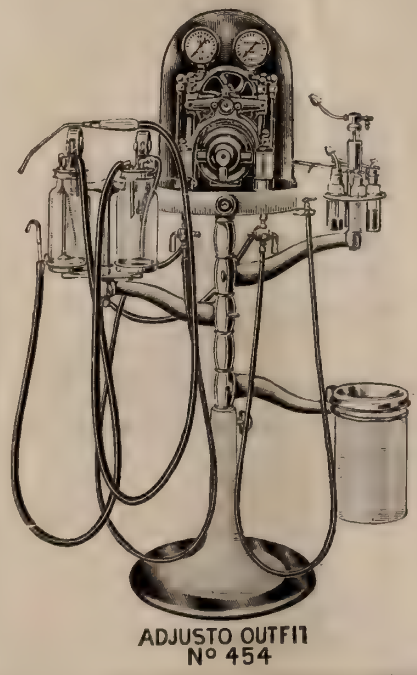
1. Listing topics of popular interest on societ programs.
2. Cooperation with Parent-Teacher Associations and other lay societies.
3. Popular meetings for discussing healt topics.
4. Promoting sanitary work such as pur water supplies and clean-up weeks.
5. Promoting hygeia.
6. Social service in schools.
7. Promotion of sociability among th families of doctors.

Dr. C. F. DeVries of Lansing told of the cooperation of the Undertakers of Lansing in securing autopsies and helping to perform them. H also described a credit bureau run by doctors, fo collecting bills for 15 per cent commission.

Dr. George Curry of Flint described the standard work of committees of a county society.

Other topics that were discussed were monthl reports of secretaries, minimum programs for year's activity, legislation, the annual meeting, th educational endowment Foundation by voluntar gifts, county clinics, listing surgical clinics, medical defense and the Journal.

At the close of the conference the secretarie organized a secretaries association.



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THE ATYPICAL FORM OF NEUROFIBROMA*

Its Differential Diagnosis from Other New Growths of the Skin

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Introduction

FOR many years the utmost chaos has existed regarding all forms of fibrous tumors and overgrowths of the skin. Even at present, with our numerous detailed descriptions, classifications and subdivisions, numbers of tumors of the skin are diagnosed clinically, either as simple fibroma cutis; or, if multiple, are immediately shunted into that convenient group, Von Recklinghausen's disease; or else, are stamped sarcomas of various types and dealt with accordingly. However, within recent years, it has not been unusual, in our experience, to see the wind taken out of a positive clinical diagnosis, by the pathologist's findings.

It is our purpose, in this paper, to call attention to a form of neurofibroma which clinically resembles various other tumors of the skin; which, because of such close resemblance has been presented before societies with a clinical diagnosis of Kaposi's sarcoma, syphilis, sarcoid, mycosis fungoides, and even papulonecrotic tuberculids; and which have been given a final conclusive diagnosis of neurofibroma by the pathologists. We wish to emphasize the fact that this form of skin tumor is fairly common; but is frequently incorrectly diagnosed clinically. Further, that this form of neurofibroma is not as a rule associated with fibroma molluscum, that it is not accompanied by any of the internal symptoms and disorders of Von Recklinghausen's disease, and finally, that it also differs somewhat from Unna's fibroma simplex, which is the same condition described by Arning and Lewandowski as noduli cutanei.

It is fitting, at this point, before discussing this type of neurofibroma, which we wish to bring to the fore, to focus our attention briefly on the historical development of the recognition and classification of cutaneous nerve tumors, touching upon the various theories of their origin, in order to throw into relief this group of atypical neurofibromas which is frequently misdiagnosed.

History and Comments

As far back as 1803 the term "neuroma" was applied to overgrowths of nerve tissue by Odier[1], to designate "all tumors formed by diseased overgrowth of nerves."

Smith[2] in 1849 classified the tumors according to his conception of their origin, grouping them as (1) those which were of "spontaneous origin," and (2) those which resulted from trauma of the nerves, including those arising from cut-nerve ends.

Like Wood[3], he believed that nerve tumors—neuromata—originated from the connective tissue sheaths of the nerve, rather than from the nerve tissue itself. As a matter of fact Smith did not believe that a tumor of the nerve tissue itself ever existed, and merely used the term *neuroma* conveniently, in a clinical sense, to designate the origin of the tumor, regardless of its structure.

Virchow[4] was among the first to go about it more scientifically, classifying these tumors on a structural basis, rather than clinical. It was he who divided these neuromas of Wood and Smith into two classes:

(1) True Neuroma (neuroma verum); namely a tumor whose essential make-up is newly formed nerve tissue.

(2) False Neuroma (pseudo-neuroma), namely, a tumor whose origin is the connective tissue derived from the sheaths of the nerve.

He then sub-classified his true neuromas into three groups:

1—Those containing newly formed nerve cells (Neuroma ganglio-cellulare).

2.—Those containing chiefly non-medullated nerves (Neuroma fibrillare amycelinicum).

3.—Those containing medullated nerves (Neuroma fibrillare mycelinicum).

And, Virchow maintained that the class of tumors described as neurofibromas were really true neuromas of the second group, suggesting that the non-medullated fibers were, because of lack of proper preparation of the slide, too often interpreted as connective tissue fibers. In other words,

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

Virchow believed that true neuromas were of greater frequency than generally thought, because he considered neurofibromas true neuromas. However, since 1863, with our improved methods of microscopic study, further observations seem to disprove Virchow's contention. It would appear, judging from more recent studies, that the existence of true neuromas is extremely rare, in comparison with the frequent occurrence of false neuromas, to which group we now know, neurofibromas belong.

Subsequent to Virchow's work on general classification, came the description by Verneuil and Bruns of the plexiform neuromas, a group, which although entirely similar in structure, origin and pathology to the generalized neurofibromas, is rather the result of a more localized overgrowth usually following the distribution of a certain nerve or nerve plexus.

Then, in 1882, came the remarkable piece of work by Von Recklinghausen, who as we all know, was the first to demonstrate the nerve element in certain skin tumors—fibroma molluscum —proving that generalized neurofibromas of the skin were essentially, but not necessarily, associated with connective tissue hypertrophy of the nerve trunks. He also disclosed their frequent association with excessive pigmentation of the skin, the presence of other pigmented lesions like moles, and their occurrence, very often, in individuals of low mentality, who show other disorders, skeletal, psychic, nervous and trophic. Since 1882, we have seen that the generalized neurofibromas of Von Recklinghausen, in varied clinical forms, constitute one of the largest groups of diffuse connective tissue overgrowths of nerve origin, appearing on the skin.

Since Von Recklinghausen, we have the following classification from Thomson[5]:

1. Multiple neurofibromata—Generalized neurofibromatosis.
2. Plexiform neurofibromata—Plexiform neurofibromatosis.
3. Molluscum fibrosum—Cutaneous neurofibromatosis.
4. Elephantiasis neuromatosa.
5. Pigmentation of skin associated with neurofibromata (forme fruste).
6. "Secondary malignant neuroma," being the sarcomatous transformation of one from or other of neuofibromatosis.

The name Von Recklinghausen's disease has been conveniently used to designate the occurrence of these lesions in any of the mentioned forms, whether they occur separately or combined.

We are all, surely, familiar with the clinical appearance of typical neurofibromas of the skin.

The neurofibromas of Von Recklinghausen almost always appear multiple, are rarely regionally limited, usually universal, and are sometimes accompanied by plexiform neuromas of the cutaneous nerves and nerve trunks. They usually develop in dark-complexioned individuals and may appear in childhood, at the age of puberty, or later in life. In the early stages, and sometimes throughout life, the lesions may be only slightly elevated and not prominent. New ones may appear from time to time and the number varies from a few to several hundred or even thousands. They are irregularly distributed over the body, appearing profusely on the breasts, abdomen, trunk and less numerously on the scalp, neck, face and extremities. They appear as nodules and pedunculated tumors, covered by smooth, intact skin. They may have broad or spherical bases, usually being dome-shaped, and are of soft, doughy consistency. Some may be firm and hard, but most of them are soft, and may show semifirm nipple-like formations with a summit similar in appearance to a vesicle. The soft tumors which may be depressed, give to the palpating finger the sensation of a hernial ring in the skin. In some the depressions seem to be filled with sebaceous secretion, which may be simply due to myxomatous degeneration.

The tumors vary in color from white to tan, brown, purplish and red. They are of an elliptical or fusiform shape and are usually freely movable, transversely, but not longitudinally. Over the entire body, but particularly on the skin of covered parts, as of the trunk and abdomen, numerous small and large pigmented macules may be present.

As has been said before, these neurofibromas of Von Recklinghausen appear together with other symptoms. Nervous disturbances, including pain, anesthesia, defects of special senses, neuroses, epilepsy, mental disorders, idiocy, fragility of the bones, infantilism and malformations, all pointing to general and especially nervous deficiency. Various digestive disturbances, jaundice, urobilinuria, and alterations of nitrogenous metabolism have been cited in support of the theory of general dyscrasia.

The congenital and slightly hereditary character is prominent in all forms of fibromatosis, suggesting the existence of abnormal qualities in the connective tissues of these subjects.

For general fibromatosis various theories of origin have been assumed, such as the theory of recurrent or chronic infection, as suggested by the recurrent inflammatory processes in elephantiasis and its resemblance to leprosy. The theory of auto-intoxication is suggested by many constitutional symptoms and especially by certain cases resembling Addison's disease. Pregnancy, alcoholism and over-use of arsenic have been reported as exciting causes. In the author's (O. L.) paper[6] on the subject, published several years ago, he called attention to the fact that the great majority of cases showed definite signs of endocrine-vegetative disorders, if they were carefully examined for these findings. It is generally assumed, however, that the victims of fibromatosis are the subjects of a congenital malformation of the ectoderm, which under a great variety of exciting causes, may slowly or rapidly develop one or more of the manifestations of the disease.

Theories of Origin

The exact nature of the cells involved in neurofibromas is not easily determined and probably not uniform. In a consideration of the histology of nerve tumors, it is far more difficult to arrive at a proper classification, owing to the complex structure of the nerve trunks, and the uncertainty of the source of supporting cells which accompany nerve-fibers, such as the cells of the sheath of Schwann, the neurilemma, the endoneurium, and the lymph sheaths of nerve trunks, all of which, or any of which, may participate in the tumor growth.

For instance, in one general group, commonly classed with the fibromas, the growth affects the connective tissue structures of the nerve, epineurium, perineurium and endoneurium; the specialized nerve elements undergoing atrophy and the tumors appearing fibrous in character.

In another group, the neuromas of Virchow, for instance, there is extensive overgrowth of specialized nerve structure, axis cylinders and myelin sheaths.

In many cases, however, especially in the more actively progressive ones, there is an overgrowth of both nervous and supporting elements, difficult to trace in the tumors, but a complex pathogenesis must be admitted.

All these considerations indicate that neurofibromatosis in all its forms is essentially one and the same disease, and that the underlying factor is a disturbance in the relations between the fetal ectoderm and the tissues which it innervates. In most of the cases it is the motor and sensory nerves which are involved, in some—to what extent is not yet clear—the sympathetic system is involved.

A classification of fibrous tumors of the nerve trunks and filaments based on their histopathology divides them into two main forms:

(1) Cutaneous neurofibromas, multiple and single. To this class belong the fibroma molluscum of Von Recklinghausen, and also the fibroma durum, in which group the atypical neurofibromas which we shall discuss probably belong.

(2) Neurofibromas of the subcutaneous and deeper nerve trunks, in which belong the plexiform neurofibromas, visceral neurofibromas, and neuro-fibrosarcomas.

For our purpose, we need only consider the histopathology of the first group—the cutaneous neurofibromas.

According to Ewing[7], fibromas are tumors composed chiefly of connective tissue, while neurofibromas are those tumors which may show atrophic nerve fibres.

Von Recklinghausen ascribes the origin of the tumor to the endoneurium of the nerve trunks of the subcutaneous tissue, spreading from there along the nerves, vessels and follicles, toward the epidermis, where it divides into fine bundles. Section of the tumor shows a spongy, ill-defined, glassy substance, exhibiting a grayish translucent appearance. The blood content is usually slight and secondary changes yield corresponding alterations in texture. Multiplicity is a striking feature of neurofibroma. The structure varies greatly, but it commonly presents fibroblasts, fibrils, blood and lymph vessels. The soft tumors contain a considerable portion of cells lying in a soft matrix which is often oedematous. There may be much vascularity which reduces the consistence. The hard tumors contain fewer cells, and secondary changes may occur in the matrix such as hyalin transformation, edema, necrosis, calcification, and mucoid degeneration. The chromatin is increased and the tissue has a neoplastic character. The cells may be large throughout, or active only at the periphery. The arrangement, however, is uniform and is determined by pressure or by the presence of structures, such as blood vessels or nerve trunks, or gland alveoli. The growth is composed of gelatinous connective tissue, the small tumors showing fine fibers and the large ones coarser fibers. There is usually a gelatinous consistency in the centre, showing many spindle-shaped cells and round connective tissue cells with definite nuclei. Frequently, a prominent feature, as pointed out by Unna, is the presence of a large mast-cell, in a reddish ring, made up of spongioplasm, and staining like mast-cell granules. The fibers are gathered into bundles, or what is more unique, show a peculiar arrangement of whorls and ribbon-like strands, an arrangement which is particularly common in tumors associated with the sheaths of nerves. The nerve fibers, as Von Recklinghausen and Kriege have recognized, are neither increased nor diminished in neurofibromas. They are as a whole unchanged and only pressed asunder, or crowded together into these whorls.

The epidermis shows little or no change, except when atrophy is present, due to the pressure of the tumor. Where the regular cystic degeneration of the hair follicles in the center of the tumor has been described by some authors, the probabilities were that they were not dealing with neurofibromas but rather with polypoid naevi or some other form of fibromas.

In larger growths, the cells of the sheath of Schwann and of the endoneurium multiply. Concentric groups of cells, so characteristic of this tumor, have been interpreted as endothelium of the nerve sheaths. In the ganglionic lesions, the endothelium of the capsules of the ganglion cells multiplies actively. In fact all the elements of the nerve filament or nerve trunk, except the ganglion cells and nerve fibrils participate in the tumor process.

According to Verocay's conception, the tissue of neurofibromas is not connective, but consists of nerve cells or their embryonal equivalents, which have not been properly employed in the development of the nervous system. The validity of this view depends on the nature of the cells of the sheath of Schwann. If these are specialized nerve or glia cells, Verocay's interpretation would seem acceptable. However, from the arrangement of the Schwann nuclei about the nerve fibres it was concluded that the Schwann cells play a primary role in the origin of the tumor.

Heller[8] supported the theory of Von Recklinghausen that these tumors result from sheaths of medullated nerve fibres, after he stained specimens in his own way with modified osmic acid stain. He also observed that the elastic fibres were present in the form of isolated fibrils, fading into the surrounding tissue, which is not in agreement with Unna's observation that the new growth shows no elastic fibers.

The Atypical Neurofibromas—Clinical Appearance

Coming now to the atypical form of neurofibroma which, after several years' close observation have been identified and distinguished clinically from other tumors of the skin, we must emphasize the fact that because they so closely simulate other cutaneous tumors in appearance, the details of their clinical description must be borne well in mind in order to establish a correct differential clinical diagnosis.

The most frequent sites involved, unlike the generalized molluscum fibrosum of Von Recklinghausen which occurs most frequently on the trunk and abdomen, are the extensor surfaces of the lower extremities, upper extremities, buttocks and scapular regions. On the lower extremities the lesions are seen most often on the front of the legs, less frequently on the buttocks, and front of thighs, and rarely on the feet. A few have been observed over the tendon of Achilles. Involvement of the plantar surfaces as well as the palms has not been observed.

On the upper extremities they appear most often on the extensor surfaces of the forearm, just below the elbows and on the back of the arms. The scapular regions may become involved

The lesions are *rarely* observed on the trunk, but in a few instances some have appeared on the abdomen, usually between the umbilicus and pubic region. As for duration, some of the patients stated that they have observed the growths for several years, at least three or four, whereas others dated their presence as far back as memory could recall. The general statement of the patients as to the progress of the lesions was to the effect that there seemed to be no noticeable tendency to growth or enlargement. They remain stationary, seeming to persist as when first observed. Some, however, show a tendency to become flatter and proceed to atrophy. There is no doubt that some lesions disappear spontaneously, a fact corroborated by the disappearance of some lesions in a patient under observation. This occurrence may correspond to a feature observed by Brickner[9] in a cases of Von Recklinghausen's Disease, where the lesions came and went with pregnancy.

An interesting feature of these atypical neurofibromas is that they occur without any contributing or associated symptoms, and seem to have no etiological explanation. In almost every case the patients made no complaints of pain, tenderness nor physical discomfort of any sort, and no internal disorders could be found. Often the lesions were discovered by the physician in the course of a routine general examination, or, a patient was led to investigate the nature of the growths by the usual layman's fear of malignancy in any growth.

The color of the tumors varies from a pinkish to a dark red or brownish red color. They may also be purplish or bluish red. Some of them show an admixture of yellow within the main lesion. These may represent material from the sebaceous glands, or possibly some fatty degeneration. The tumors are of various sizes, averaging that of a large bean or hazelnut. However, they may be observed as small as a lentil or as large as a walnut. They usually occur singly, or only few in number, although in a female mulatto they were seen in greater numbers—as many as three dozen.

The growths are firm or hard—never soft—but sometimes where atrophy has occurred, they may appear to be of a firm but doughy consistency. Ulceration, however, has never been observed. As a rule the tumors are discrete, but at times they appear to be grouped and may be confused with multiple gummas. They are round, and sharply circumscribed from the surrounding tissue. They may be very slightly movable, or fairly well attached to the deeper structures, and are, as a rule, attached to the overlying skin. The surfaces are smooth and some of the larger lesions show a tendency to flattening, the summits appearing slightly depressed where atrophy has taken place. The lesions feel dry, and may be slightly scaly and itchy.

Summarily, the distinguishing clinical features of these atypical neurofibromas lie in these points—that they are firm, hard, semi-globular tumors usually of a dark red, purplish or brownish red color, sometimes tinged with yellow, sharply defined from the surrounding skin, more or less firmly attached to the deeper tissues, occur most frequently on the extremities and buttocks, showing no tendency to enlarge or undergo radical change in any way, except possibly for some slight atrophy in some lesions. They are usually insensitive, painless and are never associated with any internal disorders or mental disturbances. Some of the tumors show a tendency to spontaneous involution.

Report of Cases

The following five cases which demonstrate clearly this atypical form of neurofibroma were selected at random from the number of cases which we have observed and recorded in the last few years.

Case No. 1—In this instance, the tumor formation in its main clinical features presented a picture so suggestive of Sarcoid of Boeck, that the clinical diagnosis of neurofibromas was made with much misgiving.

The patient, Mrs. C. B., American, married, housewife, aged 36, had been attending the Skin Clinic of the Cornell University Medical College. She had noticed the slow, gradual, progressive development of a tumor over the shoulder blade for a period of eleven years, and claimed that it had first appeared after a bruise of the shoulder. Examination revealed an irregularly-rounded growth of the skin, in the right scapular region. It was of a brownish-red color, larger in size than a ten-cent piece. The top of the growth was slightly depressed and flattened, showing some adherent dry scales. It was sharply circumscribed from the surrounding tissues, and the skin over it could not be moved. It felt firm on palpation, and evinced no tenderness on pressure. Situated just above this main lesion were two closely set-together, pea-sized, dark red papules with a faint yellowish tint. Firm pressure with a glass slide on the smaller lesions caused a removal of the red color, and set off the yellow color more prominently.

This patient was presented at a regular meeting of the Manhattan Dermatological Society in March, 1926, with a diagnosis of *Neurofibroma Resembling Sarcoid of Boeck.*

Tissue from the main lesions was examined by Dr. James Ewing, Professor in the Department of Pathology at the Cornell University Medical College and Clinic, as well as by Dr. John Frank Fraser, pathologist of the Department of Dermatology and Syphilis. The report was neurofibroma.

Dr. J. Globus, Neuropathologist at the Mount Sinai Hospital, was kind enough to examine and report on the histological findings, and his statement is as follows: "Circumscribed nodule of an uniform histological appearance. The cells are fusiform in character with deeply staining nuclei, arranged in whorls or in long ribbon-like formations. Here and there are seen blood vessels or glandular structures, in the form of ducts lined by colloidal epithelium. Occasional pigment cells are present. Indications are that the cells are very likely derived from the Schwann membrane cells of the peripheral nerves. The appearance is that of what we know as neurofibroma."

The histopathologic evidence in all the five cases is more or less the same, and is characteristic in each instance of neurofibroma.

Pathology

Examination under low power of a piece of tissue stained with hematoxylin and eosin revealed the epidermis somewhat compressed and the corium showing a dense, uniform, cellular infiltration. The epidermis as a whole had retained its various layers, but gave one the impression that it had been drawn out or distended by pressure from below. It may be said that though the rete pegs had been retained, yet in some places they were flattened, thus obliterating the papillary bodies in these spots. The striking characteristic observed in the corium was the presence of the circumscribed, dense, cellular infiltration which extended up almost to the papillary bodies and down to the subcutaneous tissue, becoming less marked as it reached further down. Some cellular infiltration into the papillary bodies and some invasion into the subcutaneous tissue could be observed. The collagen which stained less faintly than normal, could be made out in the form of a narrow band above the denser infiltration and the papillary bodies. The cells were separated and enclosed in a fibrous stroma, which looked pale and spongy. The blood vessels in the cutis were numerous, and in places although widely opened, seemed somewhat compressed by the surrounding tissues. Scattered through the tumor there were numerous discrete and aggregated fat cells, forming large clear spaces. The coil glands were evident here and there through the deeper parts of the tumor and seemed to be compressed in some places while in other parts the coils seemed to be unfolded. The sebaceous glands were not prominent and were difficult to find. Scattered through the infiltration were some small, brownish, pigmented areas. An interesting feature observed was the tendency of the cells to arrange themselves in clusters forming elongated ribbons or streaks, or whorls. The fibrillar structure also assumed this characteristic arrangement.

High power examination disclosed a general thinning of all the layers of the epidermis. There was a hyperkeratosis and slight scaling or separation of upper layer of stratum corneum cells. The stratum granulosum was poorly defined, while the cells of the rete were not as regular as normal and more flattened. There seemed to be, in places, an increased oedema with breaking down of some cells of the rete. There was an apparent upward pressure which resulted in a flattening and obliteration of the rete pegs, while in other spots the latter were well formed. The corium showed the collagenous fibres to be poorly stained and very much obscured by the very abundant numbers of cells which were fusiform. There were also some elliptical cells, some round cells and occasionally some narrow, flattened cells, which showed prolongations from their ends, suggesting the appearance of fibrils. The cells were arranged in strand-like formations and in whorls, as seen under the low power lens.

The rest of the corium was made up of very fine, poorly staining, wavy fibrils which when seen en masse gave a spongy aspect to the tissue.

Numerous blood vessels which appeared compressed were scattered throughout the corium. The changes observed in coil glands were also evident as under the low power lens, and there seemed to be a proliferation of the lining cells. Particles of brownish pigment could be seen here and there throughout the corium, and in the deeper part of the epidermis.

Several of the sections showed an accumulation of fat cells in the corium, which would appear to indicate that the yellowish spots observed in some of the tumors represented areas of fat degeneration.

This characteristic histopathologic picture of neurofibroma was found in the sections of all the cases, with but slight variance. It is therefore deemed unnecessary to give a reading of the slides in the following cases.

Case No. 2—The patient, H. D., was a married, female adult, aged 37, who appeared at the Beth Israel Dispensary in 1920. She stated that she had observed growths of the upper extremities for more than six years. Prior to her admission to the clinic a clinical diagnosis of tertiary syphilis had been made because of the grouped and segmental configuration of the solid, hard lesions. The Wassermann test of the blood had been negative on several occasions.

A group of solid, hard, red growths had first appeared on the outer surface of the right forearm, just below the elbow. No history of trauma, chemical or other form of irritation could be obtained by way of possible etiological factors. The patient had had four healthy children and there was no history obtainable indicative of syphilis.

During a period of six years new tumors had appeared on both the right and left forearms and these, after growing slowly, finally remained stationary. However, she stated that some of the lesions seemed to be getting smaller. This proved to be true for while under observation some of the lesions became smaller and even faded away with slight atrophy. There were no local subjective symptoms like discomfort, itching or pain, and no general symptoms referable to the disorders of the nervous system could be discovered.

Both forearms on the extensor surfaces presented pea-to bean-sized, dark red, brownish and bluish, circumscribed, elevated, rounded nodules, which felt firm and hard. On the left forearm, near the elbow, there was a brownish-red, large pea-sized, rounded, hard, deeply infiltrating, slightly movable nodule. On the lower one-third of this aspect of the forearm, there were a group of similar, but smaller lesions. On the extensor surface of the right forearm, near the elbow, there were several similar pea-to bean-sized nodules, which were aggregated to form a mass, serpiginous in outline. These lesions were hard and showed no tendency to softening and ulceration. Because of this peculiar configuration, a possible diagnosis of syphilis was considered, and the blood was examined for the Wassermann test which was found to be negative.

A nodule was removed and examined for its pathology, and to our surprise, a diagnosis of neurofibroma was made by Dr. Eli Moschkowitz, the pathologist at the hospital.

The patient was treated by means of various local salve applications, but after several weeks' attendance, she ceased visiting the clinic. In 1922, she returned and showed the lesions as when first seen, but those on the right forearm were less prominent, flatter, paler and some had disappeared, leaving slight atrophy of the skin. She had used a mercury ointment and it was deemed advisable to repeat the Wassermann test to again exclude the possibility of syphilis. The Wassermann test again was negative.

When this case was presented before a meeting of the Section of Dermatology of the New York Academy of Medicine, it was doubted whether neurofibromas could disappear spontaneously. Since then a study of the literature revealed the fact that spontaneous cures have been observed in neurofibromas. There are cases on record demonstrating the fact that neurofibromas may disappear under certain local or general conditions, and reappear later.[9]

This case demonstrates readily the fact that there are tumors of the skin which in their clinical appearance may resemble tertiary syphilis, and on histological study show the structure of neurofibroma; that they may show spontaneous involution; and, that they may occur without any other evidences of local or general disturbances as in Von Recklinghausen's disease.

Case No. 3—A most interesting case was that which was observed in a female mulatto, where the lesions on the legs suggested the appearance of papulo-necrotic tuberculids.

The patient was a female mulatto, aged 29, married, and a native of this country. She complained of numerous growths on the front of both legs, which had been appearing over a period of four years. Numerous small hard growths had insidiously appeared and gradually increased in number. These would reach the size of a pea and remain stationary, while some of them seemed to fade slowly, leaving scars. At no time had ulcers been present, neither was any pain nor tenderness experienced. There was no history of tuberculosis, trauma nor infections.

The patient was an intelligent, light-skinned negress, who revealed no clinical evidence of any constitutional disease, upon careful physical examination. Search was made especially for tuberculosis. The Wassermann test of the blood was negative.

Examination of the skin revealed about two dozen solid elevated lesions, and some slightly depressed scars on the front of both legs. Distributed over the tibial aspects from just above the ankle to below the knees there were elevated, lentil to pea-sized, dark red, conical, smooth, hard, slightly movable papules. Interspersed among these several flat and slightly depressed soft scars of a fading red color were observed.

The impression gained by those who observed her was that the patient was suffering from papulo-necrotic tuberculids, because of the presence of the hard papules which apparently were going on to necrosis and scar formation.

However, upon removal of a papule, and examination of the tissue by Dr. James Ewing, a diagnosis of neurofibroma was reported.

Analysis of this case demonstrates the fact that the diagnosis of neurofibroma should be kept in mind when lesions of this clinical appearance are encountered. There is no doubt now that the solid lesions went on to atrophy and the formation of pitted scars, rather than to necrosis and scar formation as in tuberculids.

Case No. 4—This patient, a male, aged 49, married, a native of Austria and a butcher by occupation, complained of several growths on the buttocks, which had been present since boyhood. There were no subjective symptoms referable to the tumors, and they had not grown since they reached their present size some years previously, but he had been referred to the Skin Clinic from the Medical Department of the Cornell University Medical College Clinic for an opinion as to the possible nature of the lesions. He had applied for treatment of asthma, in the medical clinic.

Examination of the skin revealed several tumors on both buttocks. These were purplish and bluish-red in color, elevated, rounded, and varied in size from that of a bean to a hazel-nut. The lesions were firm and hard. Although generally rounded, the larger growths showed slightly depressed and atrophic flattened tops, and all the lesions were grouped on the buttocks. The smaller ones showed some scaling. There was no pain nor tenderness.

Provisional diagnoses of sarcoids, sarcomas and gummas had been offered by several dermatologists, but we made a clinical diagnosis of neurofibromas which was confirmed by Dr. James Ewing, upon examination of the tissue which had been excised.

Case No. 5—J. G., male, white, aged 39, Russian, and a clothing operator by occupation, came for a consultation in October 1926. He complained of the presence of several growths on both buttocks and thighs. These lesions had been present, he stated, since childhood, but he had never suffered any pain nor discomfort as a result of them. He was merely curious to know their nature.

Examination disclosed the presence, on the buttocks and extensor surfaces of the thighs, of several very hard, pea to grape-sized, elevated tumors, with flattened tops and large bases. Some of the tumors were slightly bluish, some a reddish blue, and a few were of the color of the surrounding normal skin. They were not tender upon pressure. The rest of the skin was apparently normal. Clinically the case suggested either sarcoids or neurofibromas.

A routine physical examination failed to reveal any apparent abnormalities of the heart, lungs, abdomen or nervous system. The blood Wassermann test was negative, as was also the blood count and urine analysis.

A section was made from one of the tumors and the report made by both Dr. James Ewing and Dr. John Frank Fraser was that of neurofibroma.

Differential Diagnosis

In discussing the differential diagnosis of these atypical neurofibromas from the other cutaneous growths to which they bear a close clinical resemblance, it becomes necessary to consider the fibroma simplex of Unna,[10] which is identical with the noduli cutanei of Arning and Lewandowski,[11] Von Recklinghausen's Disease, neuroma, keloid, Kaposi's sarcoma, tuberculosis, gumma, mycosis fungoides, leukemia, xanthoma tuberosum multiplex, myoma, lipoma and sebaceous cyst. .

The etiological explanation of the fibroma simplex of Unna and noduli cutanei or Arning and Lewandowski immediately sets them apart from the atypical neurofibromas, since both Arning and Unna definitely ascribe them to the results of trauma, as from insect bites, or to a development around foreign bodies, like splinters. Arning, moreover, observed that they usually follow itchy skin eruptions such as lichen planus, or neurodermite, where foreign bodies have entered the skin through excoriations. It would also seem, according to his observation, that those individuals who seem predisposed to the development of the nodules, show a keloid tendency. No such etiological factors seem to play a part in the atypical neurofibromas, which seem to arise through no definite cause.

However, because the fibroma simplex and nodule cutanei bear such a close resemblance clinically to the appearance of the atypical neurofibromas, including a similarity in consistency, duration, location, color, number and configuration, a conclusive differential diagnosis must depend almost entirely upon the histological aspect.

As a matter of fact, since the histopathology varies mainly in the fact that the fibroma simplex and noduli cutanei showed no neural elements, and, since it is probable that the great majority of fibromas and fibrosarcomas of the skin and deeper tissues of the limbs and trunk are of neural origin, the thought suggests itself that the atypical neurofibromas may possibly be the same condition described by Unna and Arning, only that with improved methods of histological study, the neurogenic basis of these tumors can now be demonstrated under the microscope.

Von Recklinghausen's Disease—These atypical neurofibromas, although histologically identical with the neurofibroma of Von Recklinghausen's disease, differ widely in their clinical aspect, as is readily seen from their description. Their very firm consistency, difference in location, lesser numbers, non-pedunculated appearance, firm attachment to the deeper tissues, and the fact that the contributing symptoms of Von Recklinghausen's disease, like nervous mental, structural and internal disorders, are absent, set them clinically apart from the molluscum fibrosum of Von Recklinghausen.

Neuromas—Neuromas which are elastic, tender, soft nodules of a purplish or pinkish color, simulating the atypical neurofibromas very closely in appearance, are distinguished from them by their paroxysmal attacks of pain, and their painful reaction to pressure or palpation. The neurofibromas are neither painful, tender, nor sensitive in any way to pressure. The pathology of neuromas also reveals the presence of ganglionic cells.

Keloids—Keloids are immediately differentiated from neurofibromas by their irregular outlines, and broad swelling of firm consistency, extending like ridges over the skin. They have the smooth, stretched, shiny surface of a pearly white or peculiar rosy color typical of keloids. Usually they develop in the region of distinct traumas, as of wounds, cuts, sutures, and scars. They rarely arise spontaneously, and often recur after removal.

Sarcomas—The localized sarcomas may resemble neurofibromas very closely, and the diagnosis is often impossible without the aid of the microscope. The lesions, however, grow more rapidly, may show large blood vessels and pulsation, may be nodular and even mushroom-like, and are more diffuse in outline, with an occasional tendency to pedunculation. Of course, a microscopic examination will reveal the more cellular and vascular character of sarcomas, and set them definitely apart by the microscopic findings.

The Kaposi type of multiple, pigmented sarcomas shows tumors that are purplish and hemorrhagic in character, more rapid in their development and dissemination, at times involving the mucous membranes and showing plaques of infiltration and ecchymotic areas. Often ulceration complicates the condition. In our patient, in whom the lesions were disseminated and purplish in color (Case No. 4), the diagnosis depended upon the more sharply circumscribed character of the growth, the absence of flat infiltrating areas and hemorrhages, and the hard consistency of the individual growth. Here again, examination under the microscope establishes the differential diagnosis conclusively.

Sarcoid—The multiple benign sarcoids (Boeck), must be differentiated from the atypical neurofibromas which they may resemble. The lesions, however, are usually flatter, more numerous, often appear on the face, may be very minute, are softer and not definitely circumscribed, show more rapid growth and dissemination, yield to arsenical medication, and leave atrophic, scar-like areas upon resolution. Although they are reddish in color, under pressure the nodules show grayish-yellow foci, suggesting the name "miliary lupoid" by which they are often designated. Histologically they show tuberculous structure.

Tuberculosis—A diagnosis of tuberculosis in the form of papulo-necrotic tuberculids was made in one of the earliest cases observed, because of the abundance of small, papular lesions going on to pitted scars, but close observation, bearing in mind the features of the atypical neurofibromas in respect to atrophy, differentiates them. The papulo-necrotic tuberculids may suppurate and form crusts over necrotic centers, a characteristic not observed in the neurofibromas.

Gummas—In differentiating gummas from the atypical neurofibromas, it must be remembered that gummas develop more rapidly, grow quickly over a period of one or two weeks to several months, and although firm at first, soon become soft and doughy, breaking down and ulcerating with a discharge. There may be several small grouped gummas, resembling the lesions described in (Case No. 2) but they show the characteristic behavior of gummas mentioned above, forming punched out ulcers with segmental or serpiginous configurations, as opposed to the firm, stationary feature of a typical neurofibromas, which never soften and ulcerate.

Leukemia Cutis—This condition may simulate the atypical neurofibromas. However, in leukemia, the face, head, genitals, anus and arms are more apt to become involved than the extremities. The tumors are more doughy, more numerous, and tend to develop and multiply more rapidly. Features which are absent in the atypical neurofibroma are often associated with leukemia. There are infiltrations of the skin, the presence of eczematoid and urticarial lesions and intense itching. Other factors like the adenopathy, the enlarged spleen, constitutional deterioration, abnormal blood findings and tissue examinations, of course, aid in the exclusion of neurofibromas.

Mycosis Fungoides—This is easily excluded from the diagnosis by its history, suggestive of inflammatory conditions like eczema, psoriasis, seborrheic eczema, urticaria, followed by the development of generalized, disseminated nodes, tumors and infiltrations which may go on to the formation of mushroom-like and ulcerated growths. Itching is usually present to an intense degree, and the general health is usually unfavorably affected, leading eventually to death. In this instance, as in all these conditions which resemble the atypical neurofibromas, the microscopic examination is of greatest value.

Xanthoma Tuberosum Multiplex—The more numerous and generalized lesions of xanthoma tuberosum multiplex involve the face, and palms, and may be soft, at times occurring as infiltrating plaques and streaks. They are of a yellowish color. There may be associated with this condition general debility, manifested by jaundice, cholelithiasis and metabolic disturbances, like gout and diabetes, all of which, in addition to the pathology, aid in the exclusion of neurofibromas.

Molluscum Contagiosum—This condition which may be confused with neurofibromas is ruled out by the location of the lesions and their appearance. They usually occur on the face, the side of the neck, and the genitals. They are smooth, firm, semi-globular, and usually smaller more numerous and often transulcent, showing a central depression from which the milky and curd-like semi-fluid contents may be expressed.

Myomas—These are extremely rare, but must be mentioned here since they simulate the neurofibromas in clinical appearance. Their location, occurring as they do on the face, mammae, scrotum and female genitalia, differentiates them from the atypical neurofibromas. Besides they are softer, somewhat pedunculated tumors, which are exquisitely sensitive to pressure and are frequently subject to paroxysms of pain.

Lipomas—Lipomas differ in appearance from the atypical neurofibromas. They are lobulated, soft tumors, at times pedunculated, in which secondary changes sometimes occur, such as ossification, oedema and liquefaction. They are covered with normal skin, and are rarely found on the extremities. Of course, histological examination reveals groups of fat cells, described as being held together by a capillary network forming small lobules.

Sebaceous Cysts—Sebaceous cysts at a casual glance may look like the atypical neurofibromas, but closer observation reveals their irregular, globular shape, the feeling of elasticity which they give to the touch, their semi-solid, cheesy contents, which may emit a foul odor. The microscopic examination shows a condition poorly supplied with connective tissue nuclei and blood vessels, and reveal epithelial cells undergoing fatty degeneration, cholesterin crystals and sometimes even lanugo hairs.

CONCLUSIONS

It seems to us that the general subject of neurofibromas is of such great interest to all dermatologists, neurologists and physicians in general, that the atypical form to which we call attention in this paper may be of importance in further studies on the subject.

This type of neurofibroma is especially interesting because it bears such a close resemblance to several other forms of cutaneous tumors, like sarcomas, sarcoids, tuberculids, gummas, and others, that although it is of fairly common occurrence, it is frequently incorrectly diagnosed clinically.

The clinical and histological characteristics of these tumors indicate that they probably belong to that group of skin tumors classified by Thomas as "cutaneous neurofibromatosis."

Their existence as a form of neurofibroma must be recognized. Their distinctive characteristic which we have outlined must be borne in mind in making a clinical diagnosis of skin tumors; and, it must be remembered that the resemblance to other growths may be so close that the final diagnosis often will depend almost entirely upon the microscopic findings.

Regarding the fibroma simplex of Unna and the noduli cutanei of Arning and Lewandowsky, it is possible that they may be the same condition as the tumors described by us.

Within recent years the tendency has been growing among neuropathologists to regard almost all fibrous tumors as of neural origin, and we venture to say that with more improved methods of examination, more precise microscopic investigations and careful interpretations of pathological findings, traces of nerve elements may be more readily demonstrated.

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THE CAPACITY OF DERMATOLOGY*

By WM. ALLEN PUSEY, A.M., M.D., LLD., CHICAGO, ILL.

It is a privilege to take part in this inaugural meeting of the Section on Dermatology of the Medical Society of the State of New York. It is a section from which much may be expected; for New York state easily stands first among the states in dermatological achievement. Its pioneers in dermatology were among the earliest; it has long had, and still has, the greatest number of outstanding men in our specialty; the oldest dermatological society in the world is in this state; for many years here was published, and chiefly supported, the representative American journal in our specialty. American dermatology in fact has largely developed in the city of New York and New York state. Its dermatologists have made their impress not only upon dermatology but upon medicine as well. At least two of them, George Henry Fox and Grover W. Wende—at whose absence today we all grieve—have been presidents of this society. The formation, then, of this section can certainly not be regarded as premature.

It is desirable that men should have a high opinion of their vocations. For that reason I suspect that every one of us from time to time undertakes to appraise the worth of his life work. Certainly I have a tendency in that direction, and it seems to me that I cannot better respond to the invitation to say something on dermatology in general today than to undertake, in a small way, to evaluate the worth and capacity of our specialty.

There is hardly any better index of the worth of any field of endeavor than its vitality. And measured by this standard dermatology has every reason for self-assurance. There is a common impression that dermatology is one of the recent specialties in medicine. As a matter of fact it is one of the oldest. Doubtless one reason for this is that skin diseases are open to inspection, not only by the physician but by the patient. They are insistent in calling attention to themselves, and physicians have had their importance brought home to them as long as they have been studying disease. And so, surprising as it may be to many, we find that studies on skin diseases are among the very early manifestation of specialization in medicine, and books on the subject are among the oldest treatises on special groups of diseases. The first systematic book on skin diseases was published by Mercurialis as early as 1572.

John Lane has called attention to the fact that the first medical degree given by Yale College was to Daniel Turner of London; and Daniel Turner published a treatise on skin disease in English in 1714, and a separate one on venereal diseases thirteen years later. By the end of the eighteenth century and the beginning of the nineteenth, men in centers of medical culture all over the world were writing on skin diseases. This early development of dermatology is convincing evidence of its importance; and the subsequent history of activity in dermatology is equally convincing evidence of its vitality. Dealing with diseases which for the most part do not involve life and death, many of which are unimportant, dermatology was nevertheless one of the first specialties to outline itself. For more than a century it has shown a vigorous and uninterrupted growth.

Modern dermatology had its beginning in Germany, France and England in the early part of the nineteenth century, among men like Plenck in Germany; Willan, Bateman and Plumbe in London; and Alibert, Biett, Cazenave and Rayer, in Paris. Following these pioneers there was a rapid growth of dermatology that resulted in the production of a fine group of men who were developing dermatology all over Europe under such leaders as Hebra, in Vienna; Bazin and Hardy, in Paris; and Erasmus Wilson, in London.

The modern knowledge of syphilis had begun under Ricord, in Paris, in 1837, when, forced to change his own ideas by the work of Rollet, who demonstrated that they were two diseases, he used his great influence to establish the duality of syphilis and gonorrhea, and undid the mischief which John Hunter had caused fifty years before and which had retarded the development of syphilology for half a century. Worthy comrades of these, in establishing modern syphilology, were Bassereau and Clerc, in France, and Wallace, in Dublin. These pioneers founded modern dermatology and syphilology. Following them came a great generation of dermatologists and syphilologists, led by such men as Jonathan Hutchinson and Tilbury Fox, in England; Fournier and Vidal, in France; and Neumann and Kaposi, in Vienna.

This group were real men, in the very forefront of medicine in its greatest centers. Hebra, in Vienna, Fournier, in Paris, Wilson and Hutchinson, in London, are among the great names in clinical medicine of the nineteenth century. Hebra in his day stood out as the greatest teacher and perhaps the greatest physician in Vienna in a group that included such masters as Skoda, Rokitansky, Braun, Hyrtl, Sigmund, Zeissl and Pollitzer. On Fournier, in Paris, fell the mantle of Ricord at the St. Louis Hospital. Erasmus Wilson was the brilliant leader in London in the middle of the nineteenth century and Jonathan Hutchinson was one of the great clinicians, who brought down to our time the fine traditions that have characterized English medicine from the days of Sydenham. Men of this sort found in skin diseases a subject worthy of their devotion.

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And these men, from the earliest down, were not simply great dermatologists and syphilographers; they were among the greatest physicians of their time, and some of them were great citizens. This is true of Hebra, Ricord and Fournier, Erasmus Wilson and Jonathan Hutchinson. It is particularly true of the two great early pioneers, Willan and Alibert. Willan at the beginning of the nineteenth century was a personage in medicine and science in London. He was one of the great English teachers; among his students are numbered such brilliant stars as Bright and Addison, as well as his collaborator in dermatology, Bateman. Alibert, "the founder of French dermatology," held an equally great position in Paris at the same time. It is an interesting fact that the St. Louis Hospital was made a hospital for skin diseases as early as 1801 and the following year Alibert became one of its physicians. Evidence of his position in Paris at that time is indicated by the fact that one of the wards of the St. Louis Hospital and one of the streets by which it is bounded bear his name. (John Lane). Such disciples as these are sufficient evidence of the intellectual interest of the specialty.

American dermatology had its start in pupils of these European masters. Dermatology was one of the early specialties in the United States. The American Dermatological Association is the fifth in age among our national societies. As early as 1836 the first clinic in America for skin diseases, the Broom Street Infirmary for Diseases of the Skin, was established by Dr. Henry D. Bulkley and Dr. John Watson of New York. On April 2, 1867 Dr. Wm. H. Draper was appointed Clinical Lecturer on Diseases of the Skin at the College of Physicians of New York and that year gave a summer course of lectures on the subject. He was made Clinical Professor of Diseases of the Skin on March 4, 1869. In 1872 Edw. L. Keyes was made Professor of Dermatology at Bellevue Hospital Medical College and in 1875 Henry G. Piffard was made Professor of Dermatology at the University of New York City. The University of Pennsylvania in 1868 had a course on skin diseases by Dr. H. Lenox Hodge. In 1871 Dr. James C. White was appointed Professor of Dermatology at Harvard. He and Edward Wigglesworth were the pioneers in Boston. In the sixties Henry D. Bulkley, John Watson, William H. Draper and F. D. Weiss began dermatology in New York. Following them was that group who did much for American dermatology, including Freeman J. Bumstead, Morris H. Henry and somewhat younger, Keyes, Taylor, Piffard, L. D. Bulkley, Heitzman, Morrow, Bronson and George Henry Fox. In Philadelphia the pioneers were Buhring and Van Harlingen; in Chicago, Hyde; in St. Louis, Hardaway. These men were the founders of American dermatology. And yet how modern their names sound to us. When one thinks of this small group of fifty years ago and less, it impresses upon him the rapidity of growth of our specialty.

The growth of dermatology and the constant increase in the number of dermatologists are substantial testimony to the intellectual interest of the subject; for dermatologists, unlike the surgeons and larygnologists and ophthalmologists, do not wear furs and ride in limousines. We have not the sort of specialty that leads to approbrious opulence. Men must be attracted to it chiefly by its intrinsic interest. In this respect dermatology yields to no other specialty. Its unique interest lies in the fact that practically all pathological processes can be studied in the skin under natural living conditions. This gives to dermatology unique opportunities for the study of disease processes. It has resulted in an enormous accumulation of clinical observations in diseases of the skin and in refinements in the distinction between pathological processes in the skin, which is more elaborate than exists in any other specialty. This, as a matter of fact, is used as a reflection against us, but it is no fault of ours that we have been able to accummulate a larger number of clinical facts in our specialty and have been able to make sharper clinical distinctions than can be made in other medical specialties, and that, having these facts, we have named them; for facts to be recorded must have names. Undoubtedly in time this elaboration of distinctions will be followed by condensation. But elaboration of details must come before generalizations. The detailed facts we have been accummulating are for the Darwins of the future to simplify by grand generalizations. It is nonetheless to our credit that we have furnished the stones for some of the future temples.

The potential fruitfulness of dermatology in the solution of problems of diseases in general is well illustrated in the beginnings of bacteriology. In 1837, Schwann showed that yeast found in fermenting substances was living organisms which were probably the cause of fermentation, Within two years Schönlein demonstrated that diseases might be produced by organisms, when he showed that favus was caused by an organism. Between 1839 and 1844 Gruby showed that ringworm and thrush were due to organisms and, in 1846, Eichstedt added another disease due to an organism by discovering the organism of tinea versicolor. Thus the century's long contention that a contagium vivum might be a cause of disease was settled in the affirmative by the study of skin diseases; and the science of bacteriology had its beginning.

Another illuminating illustration of the value of the study of disease phenomena in the skin in the elucidation of disease problems in general is found in our developing knowledge of sensitization. Our conceptions of allergy and anaphylaxis and our increasing knowledge of the profound importance of sensitization phenomena in diseases had their beginning in the study of cutaneous reactions and have largely been developed through this same sort of study.

It is probably true that we have just scratched the surface of this potential field of medical knowledge and, necessarily results from such study must be slow. The great fact is that these potential values exist; it can hardly be doubted that they will be utilized more and more in the solution of the problems of pathology in general. It is in this field of the application of knowledge of pathological processes in the living, as they can be observed in the skin, to the problems of diseases in general that dermatology has its most interesting prospect for the future.

One of the encouraging things about American dermatology is its flourishing state. If the law of sociology, that those who multiply most abundantly will inherit the earth, applies to dermatology; dermatology, if it keeps up the pace of the last twenty years, need have no fear of its inheritance. There has been a significant increase in numbers and in distribution of dermatologists throughout the country in the last generation. Twenty-five years ago outside of New York city, the dermatologists in any of our greatest centers could be counted on the fingers of one hand. In these same centers the numbers have trebled or quardupled in less than a generation. But more significant still is the present wide distribution of well trained specialists. Our men are getting scattered all over the country, and many of them are carrying our service to the smaller cities. This is not only good for dermatological service to the public but it is salutary for dermatology itself. For the stimulation of knowledge, for its growth and for its spread, workers must have opportunity of contacts with their colleagues in the same work. The wide distribution of dermatologists now make this possible for us. We have our local clinical organizations all over the country, so that no man is compelled, as was hitherto the case, to do without that intercourse with his colleagues which is so necessary for development.

The present expansion of American dermatology and its present undoubted vigor are, I think, due to the natural development of a relatively few, but a sufficient number of centers of dermatological teaching. The only way to get training in dermatology or any other art is to work with a master. Formerly young men, in order to get this training were compelled to go to Europe. In the last two years these young men of European training have developed their own centers in this country, centers which are fruitful of original work and active in teaching. These centers, it need hardly be said, all have the inspiration of some individual leader. They are sending out year by year well-trained men who are scattering over the country as leaders in dermatology. Some of these younger men, whose training has been solely American, are now among our leaders in all of its fields: in practice, in teaching and in research.

This experience it would seem has answered for dermatology the much discussed question of how specialists should be trained. The vigorous generation of younger dermatologists in America today is one of the most encouraging facts in dermatology. It leaves no doubt of the vitality of American dermatology and it gives us every reason to be optimistic about its future.

There is one tendency in medical education in general now which has dangers for dermatology, as for the other specialities; and that is the apparent attitude of the controlling influences of some educational institutions that to be a specialist it is not necessary to be comprehensively trained in the specialty—not necessary to be a specialist; that the essential thing is to have a refinement of training in the fundamental sciences. The only refinement of training that he may lack is clinical refinement in the specialty he is to teach. Far be I from minimizing the importance of physiology, biochemistry, bacteriology, or pathology; they are universal necessities; but they are not the end in themselves and they do not make clinicians. The bacteriologist or the biochemist is no more by that fact a dermatologist than a physiologist is an internist, or a pathologist a surgeon. And they cannot make themselves such on independent experience. Directed training is as much necessary for making a successful dermatologist as it is for making a successful bacteriologist. The worst of it is that some men, who on the basis of an experience in the fundamental sciences, are trying to practice medicine, do not know they need clinical knowledge and never try to acquire it. They, of course, are hopeless. And we are seeing a number of them in various lines of practice. Some of them are in very important teaching positions. Dermatology, as well as the other specialties, needs to avoid this danger if it is to maintain its advance. We need the help of these men; but it is no effrontery to say that they also need our help. This is one of the dangers that dermatology, as well as the other specialties of practical medicine, is now exposed to, and it should not patiently accept it. Dermatology must be taught by dermatologists, and dermatological experts must be developed in centers guided by expert dermatologists. There is nothing that experience has established more clearly than this.

The vigorous generation of younger dermatologists in America today is our most encouraging fact. It leaves no doubt of the vitality of American dermatology and it gives us every reason to be optimistic about the future.

The history of dermatology, then, and its present condition would seem to answer, in a way that ought to be satisfactory to us, the question of its capacity and its future.

CLINICAL USE OF EPHEDRINE*

By WILLIAM S. THOMAS, M.D., NEW YORK, N. Y.

EPHEDRINE is an alkaloid, the active principle of a plant, Ma Huang, or Ephedra vulgaris, var. helvetica, which grows abundantly in China. For many centuries the herb has been used in that country empirically for the relief of asthma, but it remained for workers in the Peking Union Medical College to study scientifically the effects of its active principle upon animals. Their published results show that the physiological effects of the drug closely resemble those of epinephrine, the outstanding result being stimulation of the sympathetic nervous system. The drug is now manufactured and sold in this country in the form of capsules, each containing three-quarters of a grain of the hydrochloride of ephedrine, others containing three-eighths of a grain, and still others containing similar quantities of the sulphate. One-half grain hypodermatic tablets are also obtainable, and also one ounce bottles of three per cent solutions of each of the two above-named salts of the alkaloid.

Clinical experience with ephedrine during the past two years in upward of three hundred asthmatic and hay fever patients has caused me to regard it as a remarkably efficient drug. In this class of cases I should be reluctant to exchange it for any other palliative remedy now available. I say this in spite of the fact that I continue to employ epinephrine hypodermically in sudden allergic emergencies.

The unsatisfactory results occasionally produced by it and noted by me in a former paper[1] are now believed to be due to imperfection in its manufacture or to improper dosage. Experience has largely obviated these drawbacks. Forms of the drug now available are better than those formerly employed and proper care in dosage has given better results. Early imperfections in manufacture permitted the presence of impurities that not only caused undesirable effects but also displaced a proportionate amount of effective alkaloid.

The hydrochloride of ephedrine appears to be the best of the forms in which the drug is dispensed, to judge from my own experience in the past. The sulphate was the first of the salts of the alkaloid to be manufactured commercially in this country and it continues to be marketed here. Formerly pseudo-ephedrine was mixed with this but I am informed that the pure sulphate of ephedrine is now available and that it is quite as effectual as the hydrochloride and that it produces no more harmful effects. The physiologic effects of ephedrine are very similar to those of epinephrine but are more prolonged. All of them are comparable to those of stimulation of the sympathetic nervous system[2]. The new drug and epinephrine are strongly synergistic. So much is this so that I have been careful not to administer them together. It seems probable that experiments in their combined use may result in interesting and helpful results.

Amongst the undesirable results occasionally observed after administration of ephedrine are insomnia, sweating, cardiac palpitation, tremor, irritability of the urinary bladder, headache and nausea. Insomnia is frequently noted by patients who take ephedrine at night for the relief of asthma, but it is prevented by the administration of a mild hypnotic, such as luminal or medinal. Sweating after taking the drug is, so far as I have observed, uncommon and insignificant. As for tremor and palpitation, it is seldom necessary to give enough ephedrine to cause these symptoms. They are usually the result of overdosage and can be avoided after a few experiments in the amount of drug to be used in any patient. Irritability of the bladder caused by ephedrine has been observed in four men, each of them patients with hypertrophied prostates. One of these patients refused to continue the use of the drug after taking two doses. In the other three cases, the administration of atropin together with the ephedrine apparently succeeded in preventing further bladder symptoms. Headache was formerly often complained of by patients who were taking ephedrine sulphate and probably pseudo-ephedrine. Since employing the hydrochloride this symptom has been encountered only after the administration of overdoses.

Neither ill effects nor a tendency to habit formation have been observed in patients after long continued use of the drug. Ordinarily the dose that is effective at one time, is so at all other times. Often the dose can be diminished, but an increased amount may be required on especial occasions, as for example when a patient happens to be subjected to some influence that would bring about an attack of asthma more severe than usual. Ephedrine has no cumulative effect.

The lethal dose of the drug in laboratory animals[2] has been found to be fifty times as large as that required to produce its physiologic effects. No cases of serious poisoning of human beings have been met with, so far as I am aware.

One advantage of ephedrine over its older rival lies in its being effective when taken by mouth, while epinephrine must be administered hypodermically. Ephedrine and its salts contain no protein material; epinephrine does. Ephedrine solutions are stable, are not affected by light, and may be boiled without detrimental effect; it is not so with epinephrine. The relief from asthma that is afforded by an oral dose of ephedrine begins in from twenty minutes to forty minutes and lasts from four to twelve hours. Relief obtained from a hypodermic dose of epinephrine usually lasts from one hour to three hours. Ephedrine may be given hypodermically.

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* Read before the Society for the Study of Asthma and Allied Conditions, Atlantic City, May 1, 1927.

The proper oral dosage of ephedrine varies considerably in different persons of the same weight. The reason for this is unknown. Failure to obtain satisfactory results with the drug is occasionally due to adherence to some arbitrary rule of dosage. A more rational practice is to experiment with its effects upon each patient, if need be, until the best result is achieved. The proper amount required by any given patient may be conveniently ascertained by beginning with the administration of an aqueous solution of the drug. In a three per cent. solution, one minim contains two milligrams of the drug. The average dose for an adult is forty milligrams of the drug, or the amount contained in twenty minims of the three per cent. solution. Should this dose fail to relieve the patient of his asthmatic or other symptoms the next dose should be increased. If this amount, on the other hand, relieves but in addition causes tremor or palpitation, the amount next given should be diminished. When the proper dosage for an individual has been determined, the drug may be given in capsules or in tablets if preferred. Infants and children take ephedrine well. I have never observed ill effects in them nor failure to relieve asthma.

Adult patients who are liable to suffer from asthmatic attacks will find it convenient to carry about with them phials of one-half grain tablets of ephedrine. One, two or three of these may be swallowed when needed. In order that the beneficial effect of ephedrine may be prolonged, the drug can be administered in a rectal suppository with cocoa butter. The dose is then twice that given by mouth.

Ephedrine as a palliative remedy for asthmatic attacks finds occasion for use under such circumstances as the following:

1. In persons seen by the physician for the first time during an attack.
2. In persons who are awaiting the completion of a series of protein or vaccine tests for hypersensitiveness and in whom attacks are occurring.
3. When specific or other treatment has been tried and has failed to relieve.

Patients who are about to undergo sensitization tests should be cautioned not to seek relief in ephedrine within a period of twelve hours before such tests are to be made. This drug, like epinephrine, temporarily prevents the appearance of positive reactions to specific tests for sensitiveness. Temporary relief may be sought, under these conditions, in the use of morphine or inhalation of the fumes of burning stramonium leaves and potassium nitrate powders or in the rectal administration of oil-ether. Such makeshift palliative remedies are not, of course, chosen ordinarily, but at least they have the advantage of appearing not to interfere with bodily reactions to specific diagnostic tests.

Ephedrine is, perhaps, at its best when used as a preventative of asthmatic attacks. Patients who suffer regularly from daily or nightly paroxysms will often remain asthma free for long periods of time and suffer no harm if they receive properly administered doses of the drug taken once, twice or three times in each twenty-four hours.

Another useful field for employment of the drug may be found in its power to prevent constitutional reactions resulting from prophylactic treatment injections of proteins, whether they be of air borne substances (pollen or epidermal) or of foods.

An important property of ephedrine is its ability to shrink swollen nasal mucous membranes.[3-4] After the application by swab or spray of a three per cent. aqueous solution to the nasal passages of a patient suffering from coryza or hay fever, relief follows in from one to five minutes and lasts one or two hours and sometimes longer. The local effect ceases gradually and is not followed by after-congestion as is unfortunately the case subsequent to the local application of epinephrine solutions.

When ephedrine is used as a spray, it is preferable to use an all-glass or hard rubber atomizer, as the solutions of ephedrine salts have been noticed to become turbid and lose their beneficial effect if allowed to stand in contact with metal.

Even though a nostril be completely occluded by swelling, it will become patulous after an application or two of ephedrine solution. The nasal mucosa of hay fever patients has been observed to shrink and relief of symptoms to follow administration of ephedrine by mouth. This fact is of great interest to the physician who treats hay fever. In those hay fever subjects to whom I have given the drug by mouth, I have at the same time used it locally in their nares and by this combined use, its beneficial effects have been satisfactory in all but one case. Patients who use the watery solution in a hand spray are usually advised to follow this by snuffing up into the nostrils a pea-sized portion of white vaseline containing three per cent. of ephedrine and one-half of one per cent. menthol.

Ephedrine will, perhaps, find future use in fields as yet untried. If administered to patients together with therapeutic injections of immune sera and antitoxins, it would probably prevent possible anaphylactic shock. Serum sickness would probably be relieved by it as much as it is by epinephrine, and for a longer period of time. Certainly ephedrine has given temporary relief from discomfort in the few cases of urticaria in which I have used it.

Dr. W. A. Bastedo recently inquired if ephedrine might not be useful, if given by mouth, in checking gastric hemorrhage by reason of its local vaso-constrictor effect. It is evident that inasmuch as this drug (unlike epinephrine) causes constitutional effects after absorption by the mucous membrane of the alimentary tract, it could not be used for such a purpose. An amount of it sufficient to shrink the gastric mucosa or constrict bleeding vessels would seemingly produce also severe general physiologic effects.

Ephedrine appears to have before it a future of usefulness in the surgical world by reason of its power to blanch and shrink mucous membranes for a longer period of time than does epinephrine. Not only will it come to be widely used locally in rhinologic surgery, but probably also as an auxiliary to local anesthetics in surgery of the urethra and urinary bladder.

Contraindications to the use of ephedrine are not often met with. They cannot be foretold at present, but are revealed only by trying it. Most of the untoward effects produced by it can be overcome, either by lessening the dosage or by antidotes such as atropine or luminal. The drug is apparently entitled to a place in the category occupied by such drugs as morphine, digitalis, atropine and the few other drugs that can be depended upon to produce effects in the human organism that make them important remedies in the relief of suffering.

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SEX COMPONENTS IN MEN AND WOMEN

By ROBERT KINGMAN, M.D., F.A.C.P., BROOKLYN, N. Y.

IT IS a matter of common observation that males and females so-called, resemble each other much more closely in all external characteristics, with the single exception of the formation of the reproductive organs, at the two extremes of life than during the intervening years. Infants, regardless of whether they are later in life to function as male or female, are apt to look very much alike; and elderly people, particularly if beyond the allotted span of three score and ten, lose many of the secondary sexual features that sharply differentiated them during their prime. The facial appearances of an elderly woman and an elderly man are singularly alike. The male voice may become thin and piping, and that of the female deeper and fuller. The natural fat pads and rounded curves of the woman are lost by absorption, and her body takes on the more muscular and angular outlines of the man. The beard of the man softens and thins out, while the woman is apt to develop a superfluity of hirsute adornment.

This close outward resemblance of the sexes in infancy and senility arouses no surprise; we are accustomed to look upon these periods as more or less devoid of sharp sex differentiation. But when seen in early and middle adult life, the period of most intense reproductive activity, women who look like men and men who look like women draw our attention as being in a rather uncomfortable way decidedly different from the normal. Why this should be can only be understood by a consideration of masculinity and feminity on some other basis than that of the reproductive functions alone.

Our sex is ordinarily assigned to us simply on the ground of the reproductive faculties. At the present time a man is a man and a woman a woman from the point of view of these functions alone a most unsatisfactory confusing of a part with the whole. Study of the combined sex characteristics—mental, emotional and physical—have brought biologists to the conclusion that human beings cannot be described bluntly as male or female and assigned categorically to one sex or the other. "Male and female created He them," should refer to each individual, not to a pair. The hundred per cent masculine man exists as a hypothetical ideal only, and just so the hundred per cent feminine woman. Our world is populated by beings composed of both masculinity and feminity in all imaginable variety of percentages, between the fifty-fifty half and half bisexual and the ninety-nine and forty-four one hundreths approximation to unisexual completeness.

It cannot be lightly assumed that every "John" and every "Jane" are representative of their apparent sexes because they have been dubbed "male" and "female." It is a scientific fact that total maleness and total femaleness are merely abstract conceptions of which concrete examples do not occur biologically. And yet such sayings as "waiting for Mr. Right," "So-and-so are quite unsuited to each other," "Every Jack has his Jill" have arisen from an obscure presentiment based on an accurate physiological law, that every man and every woman possesses certain individual characteristics which qualify or disqualify him or her for marriage with any particular member of the opposite sex; and that this man or that woman cannot be substituted for another without creating disharmony.

If one compares the pen portraits of a number of women with whom some famous man has been in love, it is apparent that they all closely resemble each other in features, coloring and contours. It is precisely the same with all of us; every girl who strongly attracts a man recalls to him other girls that he has loved before. It is commonly recognized that certain individuals of the opposite sex are distasteful to us, that others leave us cold, while others again may stimulate us until, at last, some one appears who seems so desirable that everything in the world is worthless and empty if we cannot possess this onliest one. Is there a general law by means of which the specifications of that ideal person may be summed up for each one of us? If, as seems probable, every male type has its female counterpart with regard to sex affinity, it ought to be possible to formulate a definite law expressing this relationship.

Such a law, founded on known biological and psychological principles, has been formulated. In substance it parallels the dictum "Likes repel, unlikes attract," and may be stated as follows—For satisfactory sex affinity it is necessary that a complete male being and a complete female being come together, even though the proportions of feminity and masculinity be unevenly distributed between the two individuals. If every man were a complete male and every woman a complete female, all that would be necessary to comply with this law would be for any man to be joined to any woman. But, as has been intimated previously, the complete male and the complete female do not exist as separate entities. Every individual is a combination of a certain amount of maleness and another certain amount of femaleness.

Hence, to comply with the rule, everyone must find his exact complement; that is, another individual who will contribute just that amount of the two sexes necessary to endow their joint partnership with 100% of maleness and 100% of femaleness. For instance, in a man so-called, but possessed in fact of 51% of masculinity, the remaining 49% of make-up must be feminine, and for satisfactory union he must mate with a woman, so-called, who will contribute 51% of femininity and 49% of masculinity to the union. The sum total of the qualities of these two individuals will then amount to 100%of male and 100% of female. Again, a man 75% masculine and 25% feminine will obey the law if he picks out a woman 75% feminine and 25% masculine. The sum total again equals 100%of male and 100% of female. Similarly the biological complement of a woman possessing 63% of feminity will be a male possessing 37% of femininity, while a woman of only 14% maleness will enable a man of 86% maleness to satisfy the equation.

Love at first sight is nothing more than an accidental fulfillment of these requirements: the man and woman happen to possess the exact proportion of masculinity and femininity to balance and complement each other. On the other hand marital incompatibility is, nine times out of ten, the result of a union between a man and a woman whose percentages of masculinity and femininity do not even approximate each other's requirements. If, under such conditions, the natural complement of either appears on the horizon in the form of a man or woman presenting the proper sex combination of maleness and femaleness, nature steps in to readjust the difference of potential as inevitably as in the sphere of electrical discharges, and the inclination of the unhappily mated one to desert his or her makeshift at once asserts itself. This is none other than the fundamental idea of Goethe's "Elective Affinities," that fascinating romance which deals with the problem in terms of a future psychology at that time as little realized as was the fact that the author himself was in later life to suffer the full force of a similar disrupting experience.

If the law of sex complements is true as a general proposition, a knowledge of the method of its application to individual cases should be of vital importance to every man and woman. Unfortunately the use of eugenics in the mating of the human animal is not yet countenanced by convention. Thoroughbreds and pedigreed stock are its results in other animals. The human race must still breed on in the age-old hit or miss fashion of our forefathers.

Nevertheless, some simple tests for which no scientific knowledge other than a shrewd judgment of character and physiognomy was necessary may be suggestive. Photographs of a number of prepossessing women were selected, each of whom was judged to be a good example of some definite proportion of femininity, and a carefully selected group of men were invited to select the photograph which appealed to them as the most beautiful. It was possible in each case to predict the choice by estimating the make-up of the man in accordance with the rule we have cited. He invariably chose as the most beautiful woman the one whose sex proportion was most nearly the complement of his own. Another group of men were asked to present the investigator with a number of photographs among which was one which particularly appealed to them. Again, an application of the rule made it possible to point out the individual preference. By the same method it has been possible to describe to men and women, without any aid from them, their ideal of the opposite sex, and often in more minute detail than they themselves could have done. On the other hand, the qualities that repel them in the opposite sex have been pointed out and brought to their realization often for the first time, although for the most part men appreciate more readily the characteristics that repel them than those that attract.

For accurate results it must be appreciated that sex beauty and esthetic beauty are two entirely different matters. Many a man considers a woman beautiful who, from the aesthetic standpoint is not merely indifferent in looks but actually ugly. Aesthetics have to do with beauty in the abstract or absolute, a conception from which all sex influence must have been entirely eliminated. It frequently happens that a man is captivated by a particular woman and raves about her beauty, while his friends cannot imagine what he sees in her to admire. It is his sex that is doing the raving, for nature is trying to force him to choose in a mate what he lacks in himself. His friends with their differently balanced sex components in the matter of male and female elements, naturally cannot see with his eyes. A man, very nearly evenly divided as to sex, was heard to exclaim, "there's a fine woman," when he saw an actress of similar makeup to his own who had a slight tendency to a beard, a deep sonorous voice, and very little hair on her head. His 49% of femaleness needed her 49% of masculinity to supply his own deficiency, and what to a sufficiently masculine man would have been repugnant virago was to him lovely woman. For every man the word "woman" has a different meaning, and for every man it stands for the same thing. Whatever and however she may be, if she satisfies what he lacks, she is all woman to him.

This natural law of selective affinity between the sexes, not dissimilar to other natural laws, has been deduced from innumerable experiments and exhaustive research in plant and animal life. It shows that sex exists in men and women blended in the most diverse proportion of maleness and femaleness. Nature is always trying to bring together pairs of human beings the component individuals of which are perfectly adapted to each other. Our spontaneous selections and rejections are unconsciously made in accordance with this law. The force with which two individuals whose sex is compounded in the proper proportions for harmonious union tend to rush into each other's arms, is not less than that of the revulsive action which develops between the missmates of social conventions. The process is literally and figuratively analagous to that which causes solution and dissolution in the chemical laboratory.

From all of which may be derived sufficient explanation for the fact that the more femaleness a woman possesses, the less will she understand a man and the more will his sex character influence her; and that, the more manly a man is, the less will he understand women and the more readily will he be influenced by them. Those men who claim with justification to understand women perfectly, are themselves very nearly women in fact. And womanish men know much better how to treat women as they wish at heart to be treated than do manly men. The latter, except in rare instances, learn how to deal with women only after long and disappointing experience, and even then most imperfectly.

The present-day apeing of masculinity by woman is not the passing fad that it has so often been at recurring intervals in the past. The so-called woman question has never been settled for long for the good and sufficient reason that woman herself has never been a settled quantity. It is demonstrable at the present time that the ratio of her inherent masculine and feminine components is steadily changing. This change is in the direction of an increase in the mannish with a corresponding decrease in the womanish attributes quite apart from any adoption of the outward appurtenances and political prerogatives of man.

If the future is as unlike the present as the present is unlike the past, it would appear that the two sexes may so approach each other as to be practically interchangeable in all respects but one. And the experiments of Jacques Loeb and his successors with artificial methods of fertilization in lower forms of animal life have indicated that even this one may not be as indispensable as most of us would like to believe.

DIFFICULT SURGICAL PROBLEMS IN UROLOGICAL PRACTICE*

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THE surgical principles according to which difficult cases are treated are well known to all of you, but it may be of interest to review briefly some of them as they appear in urological practice.

If one analyzes roughly the elements which make a case difficult, one can perhaps make three groups, which overlap each other in many individual cases. First: Cases in which the serious and extensive nature of the diseased condition for which surgical treatment is intended cause the treatment to be difficult and hazardous. Second: Cases in which there is marked impairment of the patient's general condition as a result of changes secondary to the condition at which surgery is to be particularly directed. This group is especially prevalent in urological practice, the secondary damage being that due to urinary obstruction, often with the addition of infection and stone formation. Third: Cases in which the patient's general condition is greatly impaired by other conditions unrelated to that at which surgery is to be directed. Among such conditions which are most common may be mentioned: senility, myocarditis or other cardiac disease, hypertension, diabetes, organic nervous diseases, anemia, chronic bronchitis, pulmonary tuberculosis, etc. It is, of course, evident that certain cases fall in two or often all three of these groups, when, of course, the difficulties are magnified.

In the process of "getting the patient into condition to operate," numerous considerations apply. First: Unless by some simple means the patient's condition can be made to improve rather than to become worse, waiting increases the difficulties instead of lessening them. Secondly: If the patient's condition is in any way precarious, it is better to employ fractional procedures, doing as little as possible each time. Thirdly: In selecting the order of the fractional procedures, one has to be guided by thinking which will be the less hazardous for the patient, and which will be most likely to cause the greatest subsequent improvement before other procedures are undertaken.

Generally speaking, in urological practice the first step to be undertaken is to relieve conditions secondary to the principal lesion, particularly obstruction, infection and hemorrhage. Urinary obstruction, of course, is very prevalent in urological conditions and may occur at any point in the urinary tract. Obstruction below the bladder is relieved by catheter or suprapubic drainage; above the bladder by ureteral catheter, by nephrostomy or sometimes ureterostomy. Relief of the obstruction is of the greatest aid in combatting infection. In my opinion it is much better to regard these problems along the lines I have indicated rather than to think of applying, in a dogmatic way, certain procedures which are spoken of, for example, as two-stage prostatectomy or two-stage nephrectomy. The preliminary or restorative treatment cannot be given over any predetermined length of time but must be continued until the desired results are obtained.

During this same period, proper treatment is directed to any unrelated condition which may be present. Digitalis in cardiac conditions and insulin in diabetes are of the greatest aid.

In illustrating the above remarks, I might first mention one case in which the difficulties proved too great to overcome and another in which the result was not good because not quite sufficient attention was paid to sparing the weakened patient. The first case is that of a man 55 years of age, who had noticed blood in the urine for a period of eighteen months. The amount of blood had increased and with this had come increasing frequency, difficulty and pain. Treatment was not sought, however, until the bleeding had become very great. At the time this patient was first seen, clots of blood were being expressed continually from the urethra, with much pain, and there was marked pallor and weakness. Cystoscopy was impossible under these conditions but the bladder was not to be discovered above the symphysis and a catheter found no urine or collection of fluid therein. A short period of observation showed that the blood was unmixed with urine and it was, therefore, felt that relief of some kind, presumably from obstruction of the ureters by malignant growth in the bladder, was urgent. Exploratory operation disclosed the bladder very small, stony hard and with thick walls. No effort was made to open it but at a secondary operation, 24 hours later, one ureter was brought out and sutured to the skin edge. This ureter was dilated to a diameter of 2 Cm. and contained clear urine under high tension. Complete urinary obstruction had existed for so long, however, that the patient did not rally and died in spite of the relief of the obstruction. Here hemorrhage and urinary obstruction had combined to injure the the patient so much that recovery was impossible. The second case was that of a man 86 years old, suffering from severe urinary obstruction of long standing due to prostatic hypertrophy. There was in addition a small diverticulum of the bladder.

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about 3 cm. in diameter. Suprapubic cystostomy was performed and at this time the patient's general condition seemed so good that I yielded to the temptation to remove the diverticulum. This procedure was unusually easy, the entire operation consuming but 25 minutes. Following it, however, the patient's blood pressure fell in spite of all efforts to restore it, intra-arterial thrombosis occurred and death resulted in two and a half days. Here the very advanced age of the patient made a procedure, which would have been very easily borne by a younger man, highly dangerous.

The third case, somewhat similar to the last one, shows how much better results may be obtained by following out rigorously the rules of treatment prescribed above. A man, aged 70, had suffered for ten years from urinary obstruction due to a greatly enlarged prostate, but had not applied for treatment. He finally had a seizure during which he became unconscious and remained so for ten days. He recovered partially from this and at this time an enlarged prostate and a very greatly distended bladder were discovered. His general condition was poor in the extreme. He was very weak; systolic blood pressure of 180 mm., and extreme mental depression were present. Catheters failed to enter the bladder so that suprapubic drainage was instituted at once. Incision was made in the midline and a tube inserted. The patient immediately began to improve in every way and after a time examination of the bladder by means of a cystoscope inserted through the fistula and also a cystogram, showed that an enormous diverticulum was present which had pushed the bladder far over into the right side of the pelvis. The tube had been placed in the diverticulum. There were three stones in the bladder and two in the diverticulum, and an enormously enlarged prostate was projecting up into the bladder. Drainage was continued for a period of five weeks and transfusion of blood also given. As a result of this, the patient's condition improved so much that he was eventually able to withstand removal of the diverticulum, the stones and the prostate at one operation and was completely relieved of his urinary troubles.

Case 4 is that of a man 43 years of age, who had suffered for about three years from urinary obstruction. Complete retention finally ensued. Examination at that time showed a large diverticulum of the bladder. Operation was performed by another surgeon, after a short period of preparation by interval catheterization. The diverticulum was removed successfully but the wound healed slowly and a small urinary fistula persisted. At this time I saw the patient and felt that a contracture of the vesical orifice was present, the prostate not being enlarged. Two large pieces were removed by means of the prostatic punch but in spite of a repetition of this procedure a month or two later, the fistula still persisted and remained open for a period of thirteen months. At this time a plastic operation was performed for the removal of the fistula and primary closure of the abdominal wall. This resulted in healing but shortly afterward the patient began to have severe pain in the right side of the back and the fistula reopened. The urine contained large quantities of pus and blood and was heavily infected. X-rays and pyelograms showed the presence of two large rounded stones in the right kidney and a large stag-horn or coral calculus in the left kidney. The right ureter was obstructed in the region from which the diverticulum had been removed and catheters could not be inserted. Phthalein test was very poor; 1½% in the first 15 minutes; 18% in the second 15 minutes 20% in the second half hour. The patient was weak, emaciated and discouraged. Although nephrolithiasis, with infection, was present, it was in his favor that the urinary obstruction had been relieved and the N.P.N. was only 45. It was decided, therefore, that operation was feasible and the two stones in the right kidney were removed through a pyelotomy incision. This allowed drainage of the kidney and the patient improved remarkably. Sometime later I succeeded in passing bougies up the right ureter and the kidney fistula then closed. The patient put on 15 pounds of weight, the bladder fistula remained closed, and he seemed well on the road to recovery when pain commenced in the left kidney and it became necessary to remove the stag-horn calculus. His improved condition, however, allowed this to be carried out without any great difficulty and at the present time he considers himself well, has returned to work and the urine is almost clear. The entire period of treatment in this patient covered nearly 20 months, but each thing that was done improved the patient's general condition and helped prepare for the next step.

Case 5 is that of a woman aged 55, who had suffered with pains in the right side and right back for 15 years, with occasional attacks of marked urinary urgency. There were also occasional chills and fever, shortness of breath, swelling of the ankles, and headaches. She had had a thyroidectomy 8 years before. When first seen there was very marked tenderness in the right kidney region, with rigidity of the muscles. Blood pressure was 160:80. The urine contained large quantities of pus and streptococci. Phthalein: First hour 25%; Second hour 20%.

Cystoscopy was performed, showing purulent urine coming from the right ureter. A right pyelogram was made, the outline of which was very abnormal, the kidney being rotated anteriorly. From the nature of the abnormality, the probable diagnosis of polycystic kidney, with pyonephrosis, was made. Symptoms, however, grew worse and there were chills and high fever. A catheter was left in the ureter but since this failed to drain, operation was performed the following day at which time the pelvis of the right kidney was drained by an incision through the parenchyma. The diagnosis of polycystic kidney was confirmed, the cysts, however, being small and much functional tissue remaining. The next day the patient's N.P.N. was 66 but gradually improvement occurred and continued for a week. At this time pain commenced in the left side. Fifteen days after the first operation it was evident that the infection had spread to the left kidney. The pyelogram of the left side is also extremely abnormal but quite different from the right side. There was no doubt, however, that it also represented a polycystic kidney. Left nephrostomy was, therefore, performed, the pelvis again being found full of pus. Again there was improvement but this was interrupted by a phlebitis of the left femoral vein and secondly by a recurrence of pain in the left side, with a tender mass in the left flank below the kidney. Efforts were made to open this through the incision, with a long clamp, but they were unsuccessful and 15 days after the second operation, a third operation was performed, under local anesthesia, at which time the peritoneum was pushed back and a retroperitoneal abscess was found around the ureter and below the left kidney. Following this drainage, the patient was extremely ill for two weeks, but at this time real improvement commenced and the chills and fever, which had occurred from one to three times almost every day for a period of over three months, finally ceased. The infection had undoubtedly damaged the kidneys further since the phthalein appearance time was now one hour, but, in spite of this, the wounds healed well and normal voiding occurred from the bladder. After a convalescence of nearly ten weeks, the patient was discharged, able to walk with crutches. She has now gained 20 pounds and, except for some arthritis, of the knees and hands, some swelling of the ankles and some burning on urination, feels quite well. This patient has not been restored to complete health, but, in view of the fact that she had bilateral pyonephrosis and polycystic kidneys, with perinephric involvement on the left, it is remarkable that she should have recovered at all. That she did so can be attributed to prompt drainage of all foci of pus as soon as they were discovered by procedures which were as rapid and gentle as possible and to persistent supportive treatment, which included infusions and transfusions, between these operations.

My conclusion is to emphasize the dictum, which has been put forward so often, and ignored so often, to "treat the patient first, the disease afterward." The true surgeon will eliminate "rule of thumb" from his work and, using the practiced eye of a keen clinical observer, will do only that which he knows needs to be done and which he believes the patient can endure.

THE PREVENTION AND TREATMENT OF ACNE VULGARIS*

By HERBERT H. BAUCKUS, M.D., BUFFALO, N. Y.

THIS paper represents a plea for the early recognition of certain disorders in the skin of the young individual so that proper treatment may prevent the development of the more severe and disfiguring lesions of acne. No effort will be made to review the entire treatment of acne and for purposes of brevity the distribution on the face alone will be considered.

Of first importance is the fact that all physicians in every kind of practice ought to realize the necessity of advising treatment of the first early seborrhoea and comedones which nearly always mark the beginning of acne. The parents of the child with blackheads usually do not consult the dermatologist for an opinion on this disorder before the acne is quite generally developed. Too often the advice of both layman and physician alike, to the early case of acne is that—"in time it will get well," or, "you will outgrow it." Perhaps more stress ought to be laid upon the fact that acne becomes very many times a serious handicap and, contrary to popular opinion, extends throughout the life of the individual in some instances. Early in the school age the victim suffers from embarrassment and this mental distress is likely to be increased as the individual approaches the age of maturity. Much of lack of confidence and of poise occurs when the acne patient begins to allow this disorder to deter him or her from a proper interest in society.

We are all familiar with the complaint of the young man in business that his acne lesions and scars are daily and keenly noticed by customer and business associates. Certainly any measures we can take to prevent the more serious lesions of acne and bring about timely eradication of this disease will be beneficial in increasing the happiness of the human race. To this end it behooves us as dermatologists to urge parents and physicians alike to appreciate the importance of the early recognition and treatment of acne.

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Realizing full well that all the etiological pathology is not entirely clear-cut, it yet seems that the explanation of Whitfield reasonably answers for the greater majority of patients. (1) Whitfield regards the excessive oiliness and seborrhoea as a primary cause of the disorder. The microbe bacillus of Unna and Sabouraud grows freely in a favorable media formed by the oil and lodges in the neck of the patulous follicle of the oil gland. Here, mechanically or as a toxin, the acne bacillus irritates the epithelium which now encysts the organism with horny cells. Following this, suppuration results by infection with the ordinary staphylococcus, resulting in many instances in the formation of scars. It follows then that the early appearance of excessive oiliness of the face merits attention to treatment.

Although the time of puberty is often spoken of as the beginning of the acne stage, it is a fact that the seborrhoea usually is in existence before this time, being already quite prevalent in children of nine to ten years of age. Ayers has reported a few cases of acne appearing in the infant. (2) From the time the child begins school, then, inspection should be made for beginning signs of acne. I wish to here call attention to the advisability of treating seborrhoea of the face by a routine washing with soap and water during school hours. The school child sits at his desk for several hours of the day. He passes his hands over his face repeatedly. Dust and dirt and other foreign materials and quite often perspiration are wiped into, and occlude, the sebaceous orifices. In like manner are pus organisms apt to be inoculated. If school children, especially those in the grades, were given a short period to wash the face and hands with warm water and soap there would be much less comedo formation, we would see fewer of the severe cases of acne, and of course there would also be a reduction of various other infectious diseases of the skin. If this procedure is not possible at school, the face and hands ought to be washed at home immediately following dismissal from school. Most school children do not wash until time for the evening meal. Of course, in certain diseases of the skin it would be unwise to indulge in frequent washing of the face, but by far the greater number of children have an active sebaceous secretion of this part. Especially at the time of puberty, when the comedone formation is apt to become more active, would it be desirable to wash the face five or six times a day. Touching the face with the hands as often as we do, it is only logical to expect we ought to wash the face as many times a day as we do the hands. Lack of real sebaceous cleanliness of the face is often a means of bringing on acne in the young.

This cleansing process will reasonably take care of a large number of potential acne cases. In those who go on to the stage of comedo with epithelial proliferation of so horny a nature that the removal of a sebaceous plug is quite difficult, the use of a local application becomes necessary. The ordinary lotio alba in these early cases is quite productive of good results. Care should be taken to have the lotion properly prepared and sometimes it is well to note on the prescription that the ingredients be dissolved separately before mixing them. A dram of each of potassium sulphuret and zinc sulphate to four ounces of distilled water is the ordinary strength to be used. The addition of one per cent alcohol to this mixture will make it keep better and tend to retard the formation of offensive odors. The patient is instructed to apply enough of the lotion, preferably on retiring, so that a film of powder is visibly remaining on the skin. I find that rather than apply stronger preparations in obstinate cases, it is better to make more frequent applications of this simple lotion and avoid the risk of irritating the skin. Quite too often we forget that an irritation of the skin is an important step in breaking the barrier against infection of the cutaneous surface. Along with this treatment it is well to bar the use of all oily cosmetics. Sometimes, when the skin shows signs of temporary harshness, the application of cold cream is permissable and of benefit; always, however, with the proviso that a soap and water cleansing will follow within a reasonable period. Finely powdered talcum assists in soothing the skin and also is absorbent to the sebaceous material. However, each application of powder or other cosmetic should be followed by a soap and water cleansing of the skin before another application is made. Otherwise there is the hazard of having portions of these materials inspissated into the sebaceous ducts.

In emphasizing this local treatment there is no desire on the part of the writer to minimize the important part played by other general measures in the treatment of early acne. Proper diet, with a regular and sufficient time for eating, care of constipation, outdoor life, proper rest and sleep, care of gastro-intestinal disturbances, attention to the causes of secondary anemia, the heeding of pelvic disorders in the female, and the possibility of tuberculosis, are well known to merit careful thought in the treatment of acne. In some patients the endocrines will be entitled to consideration. Certain occupations in which grease, dust and dirt, and other foreign materials, especially irritating oils, accumulate on the face, are favorable to the development of acne. Wearing the hair tightly fitted against the skin often causes severe types of acne of the forehead in young females. Many cases of chronic recurring acne are in some measure caused by an accompanying seborrhoea of the scalp. The scalp of the individual with acne ought always to be examined and treated when necessary. Sometimes it is forgotten that a mercurial preparation should not be used on the scalp at the same time that a sulphur lotion is used on the face, as the formation of fine black precipitates may ignominously occur on the face as a result of the chemical action of the two elements.

A point often overlooked is that the ingestion of bromides or iodides in a person having comedones is often the means of converting a case of simple blackheads into one of acute pustular acne which may become quite intractable and chronic, and lead to irreparable scar formation. Of course physicians know that bromides and iodides produce papules and pustules in some patients, but their attention ought to be called to the fact that every effort should be made to avoid prescribing these drugs to individuals presenting evidences of excessive seborrhoea with comedones.

Advice to the young patient afflicted with acne should be to the effect that the process is one due largely to an over-secretion and faulty elimination of the oil gland system and that this action is likely to persist over a considerable period of time. If this advice is given at the onset of treatment, much misunderstanding is avoided and the patient learns to take care of the skin with frequent washing and in such a manner as to minimize the amount of comedo formation. So many patients have the fallacious idea that a certain number of office treatments over a definite period of time will bring about a cure of their acne. It is only in the nature of things that the sufferer from acne has an excessive seborrhoea which is apt to continue for an indefinite period. Cognizance is here taken of the fact that a small percentage of patients with acne do not have a noticeable over-secretion of the sebaceous glands.

There will, of course, be certain of our early treated cases that for some reason or other will develop a more severe acne. These, with the cases of outspoken pustular acne of mild degree coming under treatment for the first time, constitute acne simplex as a dermatologist usually sees it. Without attempting to outline the entire treatment of this stubborn disorder which will be much benefited by the local and general measures before alluded to, reference will be made to a few points in treatment which the writer has found deserving of consideration. I have found no benefit from the use of a vaccine made from the acne bacillus. The use of staphylococcus vaccines, autogenous or stock, usually ends in disappointment, but occasionally is productive of benefit in combating pustule formation. It is idle to expect any result from the vaccine against seborrhoea, comedo and follicular hyperkeratinization, and yet we often find cases of blackheads and mild acne treated with vaccines to the exclusion of all other forms of treatment. I use the vaccine only in cases of severe pustule and furuncle formation. Except in selective and severe cases, I believe the mechanical removal of small blackheads and the evacuation of small pustules does as much harm as good, since these lesions will continue to reform until there is a general change of the skin. In the trauma of mechanical removal, deeper infection and scarring may ensue. Of course, there are cases in which special lesions require attention along this line.

Careful treatment of the early stages of comedo and simple acne will eliminate the necessity of using X-ray in many instances. No one seriously questions the wonderful efficacy of the X-ray in the treatment of acne, but the increasing enthusiasm of the past few years has carried us to the place where we are made to keenly realize that a certain definite amount of harm has resulted from indiscriminate and injudicious employment of this agent. X-ray takes the position of the adjuvant and not the specific in the proper treatment of acne.

A few X-ray applications to the early case of stubborn comedo will often check the seborrhoea so sufficiently that other continued measures will suffice. In outspoken acne, of course, the aid of the X-ray is to be sought. A series of from ten to twelve treatments in correct dosage and at proper intervals constitutes a judicious therapy. I do not believe that X-ray should be used in dose strong enough to preclude the use of lotio alba at the same time. In these days of perfected technique, we seldom see the result of a single over-dose of X-ray, but we are becoming increasingly familiar with the distressing sequelae of too long continued treatment. The patient, having received so much benefit from the first treatments with X-ray, urges its continued use. But to pursue more or less isolated lesions of acne over various areas of the face in an effort to exterminate all of them is to invite a disaster for which the owner of a permanently wrinkled, atrophic, and teliangectatic skin will not thank the physician.

Everyone treating acne ought, of course, to be familiar with the presentation of the subject so thoroughly covered by MacKee[3]. I believe that the treatment of acne with X-ray should be attempted only by the dermatologist. In my work, I use the X-ray mostly to control the excessive oiliness and the keratinization at the sebaceous orifices but not depending on it very much for taking care of pustules. In dealing with pustules, I find that ultra-violet ray is of great use. Where sebaceous activity has been lessened by X-ray and other treatment, recurrences under quartz lamp therapy are not so common as generally supposed. It should be understood that ultra-violet ray does not atrophy the sebaceous glands and that its action is mainly against the staphylococcus. Its desquamating action also is of value. In his experience in treating acne with ultra-violet ray and X-ray the writer has had no bad results from combining both methods of treatment.

SUMMARY

1. Children displaying unusual activity of the sebaceous glands should be considered as potential cases of acne.
2. Washing the face and hands of the young freely with soap and hot water is a good hygienic measure and will prevent a great deal of acne. It might be feasible to indulge in this practice in the school.
3. Children with blackheads ought to be treated for this condition.
4. Physicians should avoid prescribing bromides and iodides to individuals having blackheads unless such drugs are absolutely necessary.
5. Vaccines in the treatment of acne are of use only against the staphylococcus.
6. X-ray is not necessary in every instance nor is it to be used as the only means of treatment. It is of value mainly in dealing with sebaceous over-activity and hyperkeratinization of the sebaceous ducts.
7. Ultra-violet ray is a safe adjuvant in therapy, having its effect on pustules but not on seborrhoea.
8. Combination of various local and of general measures offers the best result in treatment.
9. The lesions of acne offer in many ways a serious handicap to their possessor and merit more attention than is given them by the physician.
10. Early and proper treatment will usually prevent the formation of the more advanced and disfiguring lesions of acne.

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NEURONE BLOCK FOR THE RELIEF OF PAIN*

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THE following paper is a presentation of the results obtained in severe unyielding pain by means of neurone block. A brief description of the anatomical, physiological and pathological bases upon which each of the various types of cases were treated, will be made. Instead of presenting individual case reports, summarized group reports will be made. The relief obtained is so satisfactory that its use as a therapeutic measure may be highly recommended. The following are the diseases in which pain as a symptom was treated:

1. Cardiac Pain.
2. Tabes with Gastric Crises.
3. Laryngeal Tuberculosis.
4. Tuberculosis of the Pleura.
5. Neoplasm of Lung, Pleura, and Superior Maxilla.
6. Sciatica.

The value of alcohol in neurone block depends upon the fact that a Wallerian degeneration is produced in the nerve, thus obstructing the conduction of pain impulses from the site of its production to the sphere of the consciousness. The alcohol destroys mostly the unmyelinated fibres and their somae. The latter are the small bodies found in the groups of cells making up the dorsal root ganglia. These cells and their unmyelinated fibres are the ones that convey the pain impulses (protopathic).

Cardiac Pain.—The surgical procedure for the mitigation of severe unyielding pain in cardiac disease, attempts to eliminate the pathway along which the painful stimuli are passing. These impulses must enter the spinal cord in order to reach the thalamus. However, before entering the spinal cord these impulses must traverse the spinal root ganglia. On account of the meagre anatomical and physiological data as many as eight different surgical procedures have been devised for the alleviation of the pain. The results obtained by these methods were so poor or indifferent and the mortality and morbidity so alarming that they called forth a sharp rebuke from Sir James MacKenzie in a rather recent issue of the *Lancet*. Jonesco showed graphically the dangers encountered because of an inadequate knowledge of the physiology of the cervical sympathetic system.

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The use of alcohol injected paravertebrally into the dorsal root ganglia is suggested as a rational and safe procedure for the assuagement of cardiac pain.

The results can be briefly summarized as follows:

1. Eight patients suffering from attack of severe precordial pain, were treated by paravertebral injections of alcohol. Satisfactory relief was secured in every instance.
2. The alleviation of the pain following a single injection has usually lasted several months. One patient, who was reinjected after several months of relief, has again been made comfortable for a period of several months. This freedom from pain is still enjoyed.
3. No complications were encountered nor were there any serious after effects.
4. The procedure is simple and is based upon definite neurophysiological facts.

Gastric Crises

The operative treatment for gastric crises depends upon the following anatomical, physiological and pathological bases. Irritative processes, going on in the sensory sympathetic fibres of the stomach, enter the coeliac plexus. From this latter structure the stimuli pass into the dorsal root ganglia via the splanchnic nerves. After reaching the root ganglia, the impulses enter the spinal cord on their way to the sensorium. These anatomical and physiological observations suggested the idea that if the posterior roots were severed, the painful stimuli in their course to the spinal cord would be intercepted. Following along this line of reasoning, Forster and Moskowiez in 1911 practiced posterior rhizotomy. A perusal of the results obtained gave ample evidences of many brilliant results. However the failures according to the former surgeon, rose to fifty percent and the mortality reached as high a figure as sixteen percent. Indeed, many of the patients experienced relief for as long a period as one and one-half years. Purves Stuart advanced the suggestion, that the failures were caused by the fact that the remaining central stumps continued to convey painful influences. Attempting to eliminate these influences as a cause for failure, Sicard advised excision or avulsion of the root ganglia. The operation is extensive, severing the root segments from the fifth to the eleventh dorsal segments on one or both sides. However, with the injection of alcohol paravertebrally, many advantages are obtained.

1. A rapid and minor operation, with little or no pain is substituted for a long and serious procedure.
2. An operation with no mortality replaces one with a mortality of sixteen percent.
3. The patient is discharged from the hospital at a maximum of 4-5 days.
4. The alcohol produces not only a degenerative effect on the dorsal roots and the sympathetic afferent unmyelinated fibres in the sympathetic chain, but also seeps up to the dorsal root ganglia, producing by chemical means what Sicard suggested should be done surgically.

A careful choice of the cases and a frank explanation to the patient of the results expected are necessary. The relationship of the symptoms found to the results expected is important. One group of cases complain only of severe constricting pain; another group complain of constricting pain together with nausea and vomiting; another group have no pain but complain only of nausea and vomiting. The first group is most ideal for treatment. It indicates that all the impulses are passing up through the dorsal roots and therefore alcohol block should mitigate the condition.

The second group is interesting. The impulses of pain which enter through the dorsal roots into the spinal cord pass up to the medulla, and, by stimulating the pneumogastric centre, produce secondarily nausea and vomiting. However some of the patients may also have the pneumogastric nerve itself irritated. This irritation alone can produce nausea and vomiting. As a result, the following may ensue after paravertebral block. The pain is usually relieved in all of the cases treated.

The nausea and vomiting may be completely relieved. In other cases the nausea may persist while the vomiting disappear. On the other hand, if the nausea and vomiting are due to vagal irritation no alleviation of the symptoms will be accomplished. At present we have no clinical method which would help us differentiate between vagal irritation and medullary stimulation secondary to irritation of the dorsal roots. The third group is characterized by nausea and vomiting alone. These cases are the least favorable. They are usually due to vagal irritation. We ought, however, to give these patients an opportunity by blocking the dorsal roots. Possibly some or most of the impulses may be passing through the dorsal roots and some relief would ensue. Six cases, typifying the various groups described, have been blocked with alcohol. The relief in the favorable groups of cases has persisted for several weeks to several months. At present they are still comfortable. If the pain should recur, another injection would be indicated after the irritable roots had been delineated.

Laryngeal Tuberculosis

An understanding of the anatomical course of the superior laryngeal nerve and the structures supplied is essential for the success of the technique. The superior laryngeal nerve arises from the lower ganglion of the vagus. It runs downward and inward beneath both of the carotid arteries towards the superior horn of the thyroid cartilage. About one centimetre in front of and a little below the cornu of the hyoid bone, the nerve divides into an internal and external branch. The internal branch enters the larynx by piercing the thyrohyoid membrane. It supplies the mucous membrane of the base of the tongue, epiglottis, and larynx. The ganglion of the trunk from which the superior laryngeal nerve arises, is in anatomic connection with the upper ganglion of the vagus, which gives off an auricular branch. The auricular branch, after leaving the upper ganglion, courses along the inner surface of the facial canal and terminates between the mastoid process and the external auditory meatus. The nerve supplies the skin of the posterior part of the auricle and the posterior inferior portion of the external auditory canal.

The aim is to introduce a 65 percent to 75 percent solution of alcohol into the superior laryngeal nerve as it passes below the cornu of the hyoid bone. The sole indication we have that the nerve has been reached by the needle is the appearance of a sharp pain in the ear on the same side that the nerve is struck. Only then is the alcohol introduced. The amount injected varies from 1cc. to 2cc.

Pleuritic Pain in Pulmonary Tuberculosis

Six cases are reported of an apparently new application of alcoholic injections into nerve tissue for the control of severe thoracic pain caused by pleuritic involvement in pulmonary tuberculosis.

The following is a brief resume of the anatomical, physiological and pathological premises upon which the neurone blocking is based. The sensory nerve supply of the pleura is through the sympathetic system. The pain bearing sympathetic fibres from the upper parietal costal pleura arborize about cells in the dorsal root ganglia. The extent of this aborization is from the first to the sixth dorsal root ganglia. The lower costal parietal pleura as well as in the rim of the diaphragm sends its afferent impulses to the sixth to the twelfth dorsal root ganglia. Therefore, disease in the costal parietal pleura will transfer its effects in the form of pain to the chest wall. The site of reference will depend upon the intercostal nerves involved.

The aim of the technical procedure is to introduce an 85 percent solution of alcohol into or about both sympathetic fibres entering the root ganglia and the dorsal root ganglia. The ganglia chosen for block are those which are receiving the maximum pain stimuli from the diseased pleura. These are found by careful sensory examination delineating the zones of hyperalgesia, hyperesthesia and hyperthermalgesia on the skin surfaces. These zones of hyperirritability indicate that the cell bodies supplying the sensitive skin segments are being bombarded by pain stimuli.

Neoplasm of Lung, Pleura and Superior Maxilla.

The control of pain in malignant diseases has always been one of great concern to the attending physician. The incessant employment of morphine in the care of these patients has serious disadvantages which may be summed up as follows:

1. Small doses of morphine afford little relief.
2. The perpetual use of morphine quickly raises the tolerance to the drug. As a result even large doses often fail to ameliorate the pain.
3. Morphine even in small doses may actually hasten death in the extremely weak and debilitated patients.
4. The drug so dulls the intellect that both the family and the patient are denied even the companionship of the last days.
5. Opiates are especially dangerous in diseases of the lungs for they greatly reduce the cough reflex. As a result the secretions are often brought as far as the bifurcation of the bronchi and are dropped back into an unaffected area. Thus a terminal pneumonia is produced.

Two cases in which the pleura was encroached upon by a malignant growth, were treated upon the following principles.

The upper six intercostal nerves supply the upper parietal costal pleura. The lower six send their intercostal fibres to the lower parietal costal pleura as well as the parietal pleura of the diaphragm. Disease, therefore, in the costal parietal pleura will convey its effects in the form of pain to the chest wall. The site of reference will depend upon the intercostal nerve impinged. With the blocking of the nerves supplying the diseased pleura, pain stimuli would be prevented from reaching the sensorium.

One patient with a carcinoma of the tongue with metastasis and extensions to the floor of the mouth and the neck was injected because of the severe pain. The following anatomical and physiological facts were the basis upon which this patient was treated. The inferior maxillary nerve, a branch of the trigeminal, has both sensory and motor components. The sensory fibres arise from the lower anterior portion of the Gasserian ganglion and supply the skin over the side of the head, the auricle of the ear, part of the external auditory canal, the lower portion of the face and lip, the mucous membrane of the mouth, the tongue, the lower teeth and gums, salivary glands and the temporo-mandibular articulation. The mandibular nerve enters greatly into the supply of the salivary glands. The parotid gland is supplied in part by the sensory fibres of the mandibular nerve through the auriculotemporal branch. The submaxillary and sublingual glands are supplied to a great extent by the lingual nerve, the large branch of the mandibular nerve.

Sciatica

After a careful neurologic examination has been made, ruling out such conditions as tabes dorsalis, spinal cord tumor and hip joint disease, consideration for the symptomatic relief of the pain is in order. To attempt to relieve the pain in the presence of the above diseases would, if successful, be a pernicious result. It would mask the symptoms of the disease and might create great confusion in the pathway of a more basic and radical treatment. Under the general term of Sciatica I will also include the greater group classified under the term of Lumbar-Sacral Radiculitis. A review of the various methods used, leads one to the conclusion that much is left to be desired in the way of therapy. The following are some of the means employed:—all forms of analgesics, counter irritation, hydrotherapy, hot packs, mud baths, spray douches, hot-air treatment and massage. The results obtained were so unsatisfactory by these methods that direct treatment to the nerve itself was considered and tried. Drugs having a degenerative action on the nerve tissue, i.e. carbolic acid, osmic acid, salcylic acid and alcohol are contra-indicated. Many sad results have ensued from the degenerating effects on a mixed nerve like the sciatic nerve. In a recent article Dr. Israel Straus of New York and William Ott of Rochester, Minnesota reported a fairly large series of cases in which they injected saline and novocaine into the epidural space. The results obtained showed that the patients were relieved for many months and in some cases permanently. In my own series similar results, exceedingly gratifying at times, were also obtained. This method is to be highly recommended.

Technique: The patient is placed flat with a pillow under the abdomen. The operator stands on the left side of the patient. With the left hand the coccyx is palpated. The finger is then passed up, palpating lightly, to a point where the coccyx meets the sacrum. At this junction a triangular space is felt with the apex pointing upward and the base downward. The sides of the triangle are made up by the sacral cornu. A lumbar puncture needle, with the bevel turned up is introduced into the centre of the triangle at about an angle of 25° to the skin. The needle is introduced until the anterior wall of the canal is reached. The needle is then withdrawn about two or three milimetres and introduced about six to eight centimetres at an angle of 40° to the spine. Before injecting the solution the stylet is removed to ascertain if any cerebral spinal fluid flows out. If cerebral spinal fluid is obtained the needle is withdrawn until the flow ceases. The presence of this fluid indicates that the needle has pierced the dural sac. If the injection was made under such circumstances, the saline and novocaine would be introduced in the spinal fluid. About sixty to seventy cubic centimetres of saline plus .125 grammes of novocaine are slowly introduced. This procedure is repeated about every four to six days. As many as four to eight injections may be necessary before considerable relief is secured. The fluid passes up the epidural space, bathing the roots and ganglia of the sciatic nerve. This fluid, as seen in cadavers, when methyline blue had been injected, may reach as high as the cervical region. The pain probably is relieved by the pressure effects of the saline on the roots of the nerve.

This paper presents the view that by means of neurone block with alcohol or saline, many of the intractable agonizing pains may be greatly ameliorated.

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"PILONIDAL SINUS"*

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PILONIDAL SINUS, from "pilus," a hair, and "nidus," a nest, is the name applied to a condition in which there is a sinus leading to a hair lined cavity near the body surface. The most common site is the sacrococcygeal region. The condition is usually the result of injury and the subsequent infection of a congenital cyst. In order to better understand the etiology; we will review briefly the description of "Dermoids" as given in Treves' "Text Book of Surgery." "Dermoids are tumors furnished with skin or mucous membrane, occuring in situations where these structures are not found under normal conditions. They only possess tissues and structures which naturally belong to skin or mucous membrane."

"Treves" so-called "Sequestration Dermoids" give rise to the condition we are to consider. This type of dermoid arises in "detached or sequestrated portions of surface epithelium, chiefly in places where during embryonic life, coalescence takes place between skin covered surfaces."

"The chief lines of coalescence in the trunk are situated in the mid-dorsal and mid-ventral regions, and extend from the external occipital protuberance backward along the spine through the perineum (and scrotum in the male), forwards to the epi-sternal notch. Dermoids may occur in any part of this extensive line.

"In the face, dermoids occur in connection with all the facial fissures, including the meso-palatine. These temporary fissures are liable to three defects directly associated with dermoids. They may fail to close; then such faults as hare-lip, cleft palate, macro-stoma, cleft sternum and spina bifida are the consequences, according to the seat of failure. The clefts may close imperfectly and leave complete or incomplete fistulae, which receive such names as post-anal or coccygeal dimples, sternal dimples, mandibular fistulae, and the like. A fissure may, to superficial appearance, close perfectly, but a tract of epithelium lies buried between the opposed and the coalescing surface; this buried scar and epithelium may grow and form a dermoid.

"Sequestration dermoids usually assume a cystic form. That is, the skin forms the wall of a central cavity which gradually enlarges as the individual grows and becomes occupied and distended by the shed epithelium, hair and products of the glands occupying the skin lining the cyst. Hair, sebaceous and sweat glands are usually present. Teeth are excessively rare in this type of dermoids. Exceptionally, dermoids take the form of solid tumors, the skin clothing the interior; still more rarely, they are pedunculated." We have then the imperfectly closed cleft, with a sinus or fistula persisting from birth. The individual is probably unaware of its existence until injury sends him to a physician. There is another type in which there is a closed cyst. Injury with the subsequent inflammation may go on to suppuration. When drainage is established either spontaneously, or by the knife, a sinus persists. Then the condition remains quiescent until the individual's resistance is lowered or another injury results.

This is not a rare condition. I have observed twenty-two cases in the sacro-coccygeal region. All gave a history of trauma. The physical examination disclosed a red, boggy swelling with or without fluctuation and a sinus usually above the anus, rarely a little to one side. Below the swelling, between it and the anus may be observed one or more post-anal or coccygeal dimples, always in the median line. All the cases I have seen here were in individuals of the fat, chunky type; this may be just a coincidence. Not one was aware of any congenital condition or abnormality. All were sure they had a boil or an abscess and some were convinced only with great difficulty that a trip to the hospital was necessary to affect a cure.

The following case histories may be of interest:

Case No. 1. A young man, age 25, was boarding a train to leave a picnic ground. He climbed on the last coach as the train pulled out. He was assisted in boarding the train by a man further back in the line who applied the toe of his boot to my patient's sacro-coccygeal region, at the same time executing a forward and upward movement. This patient said there was standing room only in the train, and he didn't care to sit down anyway. Two days later he was treated by a physician who used the lance to the great relief of the patient.

Three years afterward he came to me, saying that he had another boil on his rectum. He had had a boil every six months since his injury three years before, but had not seen a physician since the first time. Poultices were applied for two or three days and the trouble was relieved. Examination revealed a mass 5 cm. in diameter in the fold between the buttocks and 7 cm. above the anus. There was a discharging sinus at the lower part of the swelling. Between the swelling and the anus, there were two coccygeal dimples, neither of which could be entered with a probe. An elliptical incision which extended down to the sacrum was required to lift out the whole infected area. On section it proved to be a sinus with considerable matted hair, pus and epitheleal debris. Ten days in the hospital were required to clean up the wound, then recovery was uneventful.

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

Case No. 2 A woman, 35 years of age, was wading in a brook with some of her friends. She lost her footing and sat down straddling a sharp stone. I saw her two days later, when she was sure she had an abscess on her rectum. There was a red, tender fluctuating mass about 4 cm. in diameter directly over the coccyx. Below this mass was a tell-tale dimple in a fold between the buttocks. The opening did not admit a probe. Resection of the mass revealed a sac lined with skin and filled with pus and hair. Recovery was uneventful.

Case No. 3. A man, age 38, slipped on an icy step and fell, striking heavily on his coccyx. I saw him next day. Heat locally had relieved the pain, but he was still very sore. Examination showed the typical dimple with the red area above. Two days afterward, I advised his removal to the hospital. This he refused, simply saying he wanted the boil opened. Explanation availed nothing, so I opened the mass from the dimple to the upper extremity. After two weeks' drainage, he was well for six months, when I saw him again. There was a small sinus and a mass fully as large as the one he had at the time of the original injury. This mass was red, boggy and very tender. This time he consented to hospital treatment and the mass was resected under a general anesthetic. This also proved to be a nest of hair.

The histories could be continued until twenty-two had been covered. In each case there was a history of trauma. Nearly every patient thought he had a boil or abscess which would disappear once it was incised. In the operated cases, it was necessary to go down to the sacrum to remove all traces of the skin lining, the wall of the sinus. In each case the mass was above the anus and posterior to the sacrum and coccyx. One was a case which had been treated as an anal fistula. The sac had been made to communicate with the rectum by an incision which severed the sphincter-ani. The true nature of the trouble was discovered three months later. This patient made a much slower recovery than the others, but has been entirely well after four years. In each case there was no doubt in the mind of the patient that simple incision would cure the trouble. Six of the cases I have seen have not submitted to the radical operation. They prefer to be incised at intervals from three to six months. One case I have opened only twice in three years.

The etiology then is, briefly, a congenital mal-formation which is brought to the patient's attention as the result of trauma. The symptoms are those of any localized pus collection. The diagnosis is concerned chiefly with differentiating the condition from anal fistula, ischio-rectal abscess, and osteomyelitis of the sacrum and coccyx. Treatment consists of radical excision of the whole tract. The prognosis is good where this treatment is followed.

EDITORIAL

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TEMPERAMENT IN PUBLIC HEALTH WORK

Most physicians have a conscientious feeling of their duty to practice public health and preventive medicine; but their various temperaments often lead them to apparently contradictory conclusions. There are conservative physicians who give advice to public health workers grudgingly and only when it is sought. The radical physicians do not wait to be asked to give advice to public health workers, but they seek opportunities to impress their views on others.

When physicians act as individuals, the conservatives may not agree with the radicals regarding the methods of accomplishing a common object. But New York State has taken the advanced ground that the medical societies of the state and counties shall assume the leadership in the practice of public health and civic medicine, and shall act through committees representing men of all temperaments. When doctors wish to attain a common goal, they will find the ways to reach it, even though some individuals may insist on travelling a different road from that of the majority.

THE COUNTY HEALTH DEPARTMENT AND ITS RELATION TO PHYSICIANS

If a county medical society had a paid field worker, what would he do? His principal duties would be to make arrangements for the practice of public health and civic medicine by the county medical society.

He would conduct a campaign for educating the public; and would be in close touch with the editors and reporters of the local papers in order to supply them with medical news.

He would make the arrangements for lectures on medical topics to be given by physicians, nurses and other public health workers.

He would plan demonstrations and clinics in prenatal examinations, child welfare, the examinations of school children and the periodic examinations of adults.

He would secure teachers in postgraduate courses for the physicians of his county.

He would attend the meetings of the staffs of the hospitals of his county, and would assist the physicians in preparing their cases for report at the meetings.

He would assist in tuberculosis clinics, and help the public health nurses to deal with difficult cases.

He would attend meetings of his county boards of supervisors and the boards of health of the towns and villages, and would inform their members regarding the attitude of physicians in the matters that come before them.

He would help the officers of his county society to plan their meetings and to secure speakers.

He would represent his society in all other activities which are conducted by the society in distinction from individual physicians.

These activities which one would assign to a field worker of a county medical society, if the society had one, are almost identical with those which a county health officer would perform (See this Journal, May 15, 1927, page 563). If a county health department were established, one of the greater activities of its health officer would be to make the arrangements by which the physicians of the county could perform their duties in public health and civic medicine. The health officer would plan for clinics in child welfare, for example, and would arrange with the local physicians to conduct them. He would act, primarily, for the benefit of the people, rather than the glorification of an organization. Physicians would welcome him as their field representative.

While experience with county departments of health has shown that they are not always in harmony with physicians, yet the Medical Society of the State of New York has abundantly demonstrated that physicians can guide and direct all phases of the practice of public health and civic medicine if they wish to do so. The great majority of the nine hundred or more health officers of the local health departments are active in their county medical societies and represent their medical brethren in all phases of public health work. A great part of the duty of a county health officer would be to represent and assist the physicians in the discharge of their civic duties. The county health officer would be of direct benefit to every physician in the county.

TYPHOID FEVER IN MONTREAL

It is not the function of a medical journal to publish news which may reflect unfavorably upon any community. There is a widespread feeling that there should be no publicity regarding the existence of an epidemic; but this is an instance in which silence defeats its own object, for when news is suppressed, exaggerated rumors spring up and do far more harm than statements of the truth.

It is also true that when the full truth is discovered and told, the health officials take preventive measures which are effective and which make the stricken community even safer than one in which no search is made for cases and no prevention is undertaken.

The City of Montreal, Canada, has had an epidemic of typhoid fever for over four months, with 1,000 cases and 100 deaths per month. Information regarding its cause and course has been hard to obtain, and still more inefficient have been the measures for its control. But the suppression of information has resulted in an investigation by the representatives of the United States Public Health Service after the Departments of Health of New York and other states had been unable to obtain the facts. An abstract of that report is printed on page 858 of this Journal; together with the comments of the representatives of the Department of Health of New York State.

It is extremely unlikely that a situation like that in Montreal could arise anywhere in New York State owing to the existence of four preventive measures:

1. Publicity of facts.
2. The cooperation of physicians.
3. The maintenance of efficient machinery for investigation and control.
4. The quick application of all the forces for prevention.

Health conditions in New York stand out with the greater credit when they are contrasted with those in its neighboring Canadian province.

RABIES

Rabies is becoming increasingly prevalent in the eastern part of New York State, but boards of health make only sporadic efforts for its prevention. The great source of rabies infection is the army of stray dogs from which the kindliest household pet may acquire an infection during a run of a block. Complete isolation of a healthy dog is well nigh impossible; and preventive inoculations are of doubtful efficiency although they produce some degree of immunization.

The most effective measure of prevention is the destruction of stray dogs; yet it is strange how people will claim an impounded dog, but will deny its ownership when the tax collector appears.

An element in the spread of rabies is the breed of the dogs which run the streets. The style is now to own a "One man" dog, such as the police or the airdale. These dogs are friendly to one person or family only, and are quarrelsome with all other persons and with other dogs. When they begin to be sick, they have a tendency to snarl and bite to a far greater extent than the terrier or hound, which makes friends with everybody.

The official on whom rests the greatest part of the burden of the control of rabies is the dog catcher. He is efficient in direct proportion to the support which he receives from office holders and the public.

The prevention of rabies is an example of a public health problem which must be handled principally by laymen.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Medical Inspection of School Children.—Twenty-five years ago the medical inspection of school children was well established in New York City, but the service was confined largely to practice against contagious diseases. This Journal for August, 1902, contains an article on the subject by Dr. F. W. Loughran, who says:—

> "It would seem that while the daily medical inspection of schools for the detection of disease is the result of scientific knowledge and research, it would be comparatively easy to have it introduced into all our communities, and yet from its inception it has met with manifold difficulties, not only from the ignorance of municipal authorities, not only from objections of the parent, but by many obstacles cast in the way by physicians of reputable standing.
>
> "It is not necessary for me to go into figures to prove the efficacy of this system, though I might cite a few cases. A primary school of forty students had fourteen cases of diphtheria in eighteen days, all from one room. Of the fourteen cases, seven were discovered by a medical school inspector and three of these only by culture. All suspicious cases were dismissed from school and recommended to the care of their family physician. The next morning every child was examined and many cultures taken. The school was then dismissed from Thursday until the following Monday, and the rooms disinfected and cleaned. For ten days after his return the throat of every pupil was examined by a medical school inspector, when the children first assembled in the morning, and no pupil who had been absent with any suspicious symptoms was allowed to return until it was proved by negative culture that there could be no danger. As a result of this measure not a single case of diphtheria resulted, beyond those known to have been infected at the time the epidemic was discovered."

Searching for contacts was then a new procedure, and Dr. Loughran says:—

> "The best results were obtained by securing the absence list of the school in which a case of contagious disease had occurred, and visiting the absent children to learn the cause. Eighty-five families with scarlet fever and diphtheria were visited and showed fifteen cases of scarlet fever and nineteen cases of diphtheria, thirty-four cases out of eighty-five in which the first case in the family was a school child. It was in the district reporting the largest number of cases of scarlet fever that the connection with the schools was best marked. The inspector reported that in his experience any severe outbreak had always come from the schools. The statistics seem to show that many cases of diphtheria went unnoticed, and the same was true in the instance of scarlet fever."

Fumigation was still practiced, for Dr. Loughran wrote:—

> "After the necessary disinfection and fumigation of the rooms in which there has been an infectious or contagious disease, postal cards will be mailed by the Division of Contagious Diseases, notifying the proper schools that it is safe to readmit the child or children living in those rooms."

MEDICAL PROGRESS

Drowning Accidents and Perforated Drumhead.—E. Schlitter of Basle gives a monographic consideration of this interesting and seasonal subject. The author is attached to the local University clinic for otolaryngology and his authorities are chiefly colleagues. From the earliest times there have been mysterious deaths by drowning of good swimmers in which all of the well known causes of incapacity preceding drowning could be excluded. Certain of these have been explained by the status thymicolymphaticus, but autopsy may exclude this possibility. The association with drumhead perforation was first surmised by Lucae in 1885, by whom the suggestion was made that water entering the tympanum caused optic vertigo from disturbed pressure conditions and lead thereby to drowning. In 1899 Danziger revived the subject. In 1906, however, Barany seems to have shown that not heightened pressure but a caloric factor is decisive. Swimmers with perforation have been known to complain of sudden vertigo but were able to fight it off or were rescued; but the great frequency of perforation with the small percentage of drownings in such subjects has always been a stumbling block to theorists. It is evident that there should be a systematic study of the drowned for perforation, and the author gives a technique for such examination on the cadaver and for special autopsy procedure for obtaining specimens for microscopic study. It is, of course, as essential to discover how the average subject with perforation escapes drowning as to determine the mechanism by which death results. These cases have an important forensic bearing—for example, supposed suicidal drowning might be shown to have been accidental. — *Schweizerische medizinische Wochenschrift,* June 11, 1927.

Treatment of Scintillating Scotoma.—Professor F. Penzoldt of the University of Erlangen gives an account of a case of this disorder in his own person. The author runs naturally from one to three attacks monthly and sometimes shows as a sort of equivalent a vascular spasm of the fingers followed by headache of a migrainoid type. He is also a sufferer from ordinary migraine, but in his case the two affections seem quite dissociated, pursuing independent courses. The scotoma is at times in the form of colored flower-like spectra. In regard to treatment the author has never been able to cut short the scotoma but has been able to prevent the following headache by taking acetanilid promptly, while acetylsalicylic acid, amidopyrine, acetphenetidin, etc., all have some power in this direction. A long series of preventive measures is enumerated, which should vary with the individual and which, if enforced strictly, might be worse than the disease. Here belong avoidance of overexertion, of constipation, of excesses at the table, etc. The only drug which holds out any hope appears to be quinine muriate, in doses of four grains four times daily. One should persist in the treatment even if the attacks continue. It may be necessary to take as much as one ounce before the desired effect is obtained, although this result has been seen after 150 grains only. One cannot speak of a radical or even a clinical cure, but the patient may secure some months of freedom from attacks. Nevertheless the author makes the statement that there may be spontaneous remissions of months' duration so that the result, to count, must be superior in duration to these latent periods. The treatment can be begun anew after the attacks reappear.—*Muenchener medizinische Wochenschrift,* April 22, 1927.

Tellurium in the Treatment of Syphilis.—Fournier, Levaditi, and Guénot have treated 40 cases of this disease at different periods with metallic tellurium and three salts of the metal given by injection, and have reached the conclusion that the treatment is powerfully efficacious, provided the amount is sufficient and the administration massive. The action is not so prompt as that of the arsenicals and bismuth, and some unpleasant by-effects have been noted which militate against pushing the remedy. These effects can be minimized by reducing the dose, but the action of the small dose, while satisfactory from the clinical standpoint, does not show a parallel effect on the Wassermann reaction. Moreover relapses are not uncommon after a course of treatment. Combinations of tellurium with arsenicals and bismuth do not offer any advantage. The chief task of the future is to find a way to obviate the drawbacks of the metal, in which case the valuable antisyphilitic power which it undoubtedly possesses may be utilized. The accidents and inconveniences are discussed at length. The exposed parts—face and hands—may assume a bluish tint and in many cases, especially in brunettes, the hair is bleached although very incompletely—where the hair is shortest, as on the temples and in the nuchal region, but not for its entire length when it is long. The odor of garlic on the breath is pronounced, which is hardly noted by the patient, but is very disagreeable to his entourage and often persists long after the treatment is over. A few patients showed a marked resistance to the remedy, as occurs in the case of other antisyphilitic drugs. It may be possible to incorporate the metal in a synthetic which shall be without its drawbacks.—*Annales de l'Institut Pasteur,* April, 1927.

Arsphenamine Treatment and Metasyphilis.—L. Spitzer notes that arsphenamine has now been on trial for about 20 years, and the present generation of medical men comprises many who recall the astounding action of the drug which in some cases appeared to do in a few weeks or months what had hitherto required years. Numerous technical difficulties and accidents could not slow up the great advance of the new treatment. Various questions, however, demand answer and one is, does this treatment tend to prevent tabes and paresis? The authors material nominally controlled amounts to around 5,000 cases which date back to 1906. Of this number comparatively few were completely controlled over the entire observation period, the total being 406 or considerably under ten percent. The cases of metasyphilis amounted to 134 but the author goes outside of the nervous system under the term metasyphilis, by including aortitis, disease of the labyrinth, and other late sequelae. There were 53 cases of tabes and 28 of paresis, making 81 of metasyphilis in the usual acceptation of the term. Analysis shows that to prevent metasyphilis arsphenamine must be given as early as possible,—that is to say during the period of the primary lesion. Given after this period, even when conjoined with mercury, the drug cannot prevent the development of metasyphilis. There is even the likelihood that vigorous treatment begun too late may cause metasyphilis to appear precociously. In these cases the author made use of arsphenamine and mercury. An instance is given which shows that even when this treatment is begun in the primary stage there is no absolute guarantee of prevention of metasyphilis. In a married pair vigorous treatment was begun and maintained from the time of the primary lesion, but the husband developed tabes in the fourth year of the disease while the wife in the same period suffered a hemiplegia. The author shows by statistics that vascular disease is very commonly associated with metasyphilis of the nervous system.—*Muenchener medizinische Wochenschrift,* April 15, 1927.

"Benign" Smallpox (Variola Nova).—Prof. Naegeli of Zürich mentions three new types of disease which have appeared in Switzerland during the past decade, of which the first two are the influenza pandemic and lethargic encephalitis. The benign form of variola appeared suddenly in the Canton of Zürich in 1921, and of 1,100 patients seen in the author's service but two perished. At the same time ordinary smallpox with a mortality of 15 percent prevailed in a small way in Basle. In the mild form the lesions tended to be sparse and abortive, the secondary pustulation fever was absent as a rule, and there were none of the serious complications of variola. The blood counts which characterize the latter disease were absent. Naturally there was doubt that the disease was smallpox, but the Paul test on the rabbit cornea and the allergy test were positive, and vaccination rapidly checked the spread of the disease. The probability is that the new affection was of the type (alastrim) previously seen in Brazil, the West Indies, the United States, England and elsewhere. Although possibly due to a special strain of virus the fear is always present that this mild form may be able to transpose itself under unknown conditions to the severe type. The author would for the present term the new expression of disease *variola nova* for we cannot be sure yet that we have to do with a varioloid or a modified smallpox. Over a century ago epidemics of mild smallpox were reported in the Canton of Zürich by Fehr, but a study of his material shows the outbreak was much more severe than variola nova, for many severe cases and some fatalities developed.—*Schweizerische medizinische Wochenschrift,* April 9, 1927.

The "Perna Disease" (Chloric Acne).—This affection is discussed at length by Dr. Teleky in the *Klinische Wochenschrift,* April 30, 1927. Contrary to what would be assumed, the term perna disease is not an eponymic, perna being merely a sort of code contraction of perchlornaphthalin, the chlorinated naphthalin employed extensively in the preparation of gas masks. The women workers on the latter during the war suffered considerably from chloric acne and the term in question was introduced in 1918. At the end of the war in the same year the new disease dropped out of sight along with its name. Chloric acne was known long before this period and in 1899 a form was described which developed in chlorine works in connection with the electrolytic decomposition of some of the salts which contain the element. Originally classed with other halogen acnes (bromine, iodine), it was later ranked with the tar acnes and pronounced a nonspecific affection. Recently perchlornaphthalin has been used in the mining industry, paper soaked in it being employed in the insulation of wire, and 170 workers with this substance developed the disease, although only 70 to a moderate or severe degree. It was found that practically none escaped who had worked for more than four weeks with the chemical in question. Aside from the name, the condition is of interest only to those interested in industrial medicine.

Intolerance to Sugar as a Factor in the Production of Some Dermatoses.—G. Gordon

Campbell, writing in the *British Journal of Dermatology and Syphilis,* May 1927, xxxix, 5, shows that the temporary rise in blood sugar which occurs in those who exhibit intolerance to sugar is also concerned in the production of skin lesions, mainly of the dermatitis type, and that a diet restricted as regards carbohydrates, may bring about a cure of these lesions when other methods have failed. Sugar may become injurious to the organism, especially after middle life, through the inability of the digestive system to handle it; then, if taken in too large quantities, it raises the blood sugar above the normal limits. Persons showing this phenomenon are not diabetics; they are simply intolerant to sugar. In most of the author's cases there was nothing that would lead one to suspect sugar intolerance as a cause; he has learned to depend upon the history of the case as pointing in that direction. This is the development of an intractable dermatitis in an individual past middle life, who has made no change in his habits or occupation, and who has previously been entirely free from such attacks. In some cases the dermatitis is caused apparently by irritants to which the individual has long been accustomed to expose himself without any untoward effects; for example, the surgeon found that certain antiseptics which he had used for years with impunity produced a dermatitis. In some cases limited to the axillæ and about the genitals, a high sugar content of the sweat was probably the actual cause of the disease. Of 31 cases showing intolerance to sugar 18 remained under observation until the skin lesions had entirely disappeared, the time varying from one to six months. Relapse of the skin conditions was noted when sugar was again taken in the diet, and a return to a sugar-free diet was followed by complete disappearance of the eruption. In many of these patients a sugar-free diet had resulted in a marked improvement in general health and an increased capacity for work.

Sciatic Pains and Their Differentiation.—Frederick P. Moersch, writing in *The Military Surgeon* for May, 1927, lx, 5, classifies sciatic pains into two major groups: sciatic neuritis (a clinical entity) and symptomatic sciatica (erroneously called sciatica) indicative of a pathological process directly or indirectly affecting the sciatic nerve. For purposes of clinical discussion the latter group is divided into three subgroups: (1) sciatic neuralgia (sciatica), (2) peripheral sciatica, and (3) radicular sciatica. These groups should be separated whenever possible. Sciatic neuritis, though usually gradual in onset, may develop in a few days. In the late course of the disease spontaneous pain is usually very slight, in marked contradistinction to sciatic neuralgia in which the pain persists for a long time. There are three outstanding objective findings in sciatic neuritis: reflex, sensory, and motor disturbances. The sensory disturbance is peripheral in distribution and distinguishes the affection from a central disturbance in which the sensory disturbance is segmental in character. Contrary to the various types of neuralgia, sciatic neuritis rarely reaches a stage of complete recovery. Sciatic neuralgia runs a course of several months, even several years, without at any time showing definite objective signs, while a mild case of neuritis usually shows definite findings within a short time. Impairment in the gait and posture are marked symptoms, but paralysis does not occur. Under the term peripheral sciatica are cases which may fall into either of the foregoing groups, but because of the presence of unusual signs or lack of signs, cannot be clearly classified. In this group the pains may be the result of arthritis of the sacroiliac joint, of trauma, pressure, or inflammatory reactions, but frequently the cause can be determined only after a long period of observation. The objective manifestations range from entire absence of findings to extreme weakness, atrophy, and reflex disturbance. Radicular sciatic pains are usually the result of caudal lesions, or pressure on the caudal nerves. The neurological findings are, as a rule, central and not peripheral. In this group of cases examination of the spinal fluid is helpful. It is well known that anterior sacral tumors may exist for years under the diagnosis of sciatica. Many causes which are not specific for any group of cases must be considered as the possible source of trouble in every case: toxic and infectious conditions, muscular affections, bone lesions, lesions of the nerve and cord, vascular diseases, pelvic and abdominal diseases, and constitutional diseases. In every case of sciatic pain a careful history and a physical examination are paramount; a rectal examination also should form a part of the routine. Roentgenological studies should be made with care and interpreted with caution. If there is any doubt as to the cause the spinal fluid should be studied. Treatment must be directed to the cause. Injections in cases of neuritis should be avoided.

The Prevention of Cancer.—The importance of chronic irritation as an exciting factor in the production of cancer is forcibly emphasized by James Ewing in an article in *Surgery, Gynecology and Obstetrics,* May, 1927, xliv, 5A. He asserts that the more carefully we investigate the doctrine of tissue predisposition, the less satisfactory it becomes. The hereditary tendency may be present to an extreme degree, but it rarely expresses itself unless extraneous factors are brought into action. Persons with a strong family tendency should take unusual precautions against the disease. The parasitic theory is untenable since it is not compatible with the known facts; cancer is not an entity but a great group of diseases of varied origin and course. It is in-conceivable that one microorganism should be responsible for all of them. Intra-oral cancer is due to bad teeth, tobacco, and syphilis, in the order named. A large proportion of buccal cancers arise in tobacco users who have bad teeth, ill-fitting plates, and dental bridges. The public and the dental profession should be urged to take a lively interest in buccal cleanliness and sound dentistry for the avoidance of cancer. To combat buccal infections Ewing recommends the regular use of soap gargles. Cancer of the genitals in both sexes is nearly always traceable to forms of uncleanliness. Cancer of the uterus is distinctly less frequent in Jewish women than in those of some other races. The general adoption of some form of circumcision might reduce the incidence of genital cancer in the male. In cancer of the skin predisposing factors are suppressed hair follicles, overdevelopment of sweat and sebaceous glands, and congenital pigmented moles. Persons with oily skins and a heavy growth of coarse hair should know that vigorous and frequent scrubbing with soap and water are required to rid the skin of accumulating secretions. Suspicious warts and pigmented moles in situations exposed to irritation should be removed. The incidence of cervical cancer would probably be dimished by insistent repair of cervical lesions following childbirth, and by periodic examinations during and after the childbearing age. Alcohol, tobacco, and the bolting of hot, irritating, imperfectly masticated food must be regarded as highly important in the causation of esophageal cancer. Gastric cancer is probably due to the habitual abuse of the stomach. No particular type of diet has any known influence on the incidence of cancer, but one may preach without limit moderation in all things, sane and simple living, and minute attention to the general hygiene of the organs. Clinical, anatomical, and experimental data indicate that stagnation of the secretions is a prime factor in the causation of chronic mastitis and mammary cancer. A tendency to chronic mastitis should be treated with the object of draining the breast, and the practice of early and abrupt weaning of infants should be scrutinized from the point of view of its probable relation to mammary cancer. The irritation of chronic constipation in relation to cancer of the rectum must not be disregarded. Ewing fears too much should not be expected from any effort, however extended, to acquaint the public with these facts and to get them to act upon them.

Radium Carcinoma of the Thumb.—Although many cases of cancer due to prolonged exposure to x-rays have been reported, practically none has been recorded which was the result of continued exposure to radium salts. For this reason, Cecil P. G. Wakeley describes a case of radium carcinoma in a man, aged 65, who had handled radium salts since 1904. In 1913 he first noticed a little roughness of the hands and experienced a tingling sensation in the fingers. During the World War he handled a considerably greater amount of radium salts than usual, with the result that in 1916 his hands became discolored and his nails began to fissure and became very friable. In 1920 warts appeared, and in 1923 the skin of both hands was atrophic, thin, dry, and wrinkled, with numerous small patches of lightish brown pigmentation on the dorsum of the digits. In 1923, a small wart was removed from the back of the third digit of the left hand; microscopically, this was found to consist of chronic inflammatory tissue together with early squamous cell carcinoma. The patient, against advice, persisted in his research, and came under observation again in May, 1924, with a large fungating growth of the right thumb. The thumb was amputated and the wound healed well. When the cancer did develop, it grew very rapidly. It is of interest that the patient's wife, who helped him with some of his radium work, died of carcinoma of the bladder.—*British Journal of Surgery,* April, 1927, xiv, 56.

Cure of Radiologists' Cancer by Diathermic Coagulation.—H. Bordier relates the case of a constructor of apparatus who had been exposed for many years (since 1895) to small doses of röntgen rays, the parts exposed being the face, hands, and thorax, also the eyes. About 1907 he began to note the presence of small warts on the left hand and the following year lesions appeared on the eyes, but the author will not take time to narrate these and merely states that they finally yielded to diathermy. The left hand became the seat of a tumor which by 1914 had developed a fungating tendency; and after its removal in 1918 there was a recurrence in 1920 which was seated in the angle made by the first and second fingers, also extending upon the digits. The mass was ulcerated and discharged a fetid ichor. By 1926 the pains had become intolerable, both in the affected hand and the arm and it was proposed to amputate, but the author was called on to treat the mass by his method of diathermic coagulation which requires the use of a special bulbous electrode with an amperage varying between 150 and 400 with contact of 3 minutes. The pains at once ceased and after 15 days a large slough came away with complete cicatrisation in 6 weeks. Some outlying portions of the mass which were seated on the two fingers were destroyed at a second seance.—*Acta Medica Scandinavica,* April 30, 1927.

LEGAL

By **LLOYD PAUL STRYKER, Esq.**
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THE SUMMER VACATION

It is hot; the dog days are upon us; it is time for rest and recreation. To the complicated, exacting and trying duties which daily befall the professional man, especially the physician, it is essential that he should bring to bear a clear mind, a fresh point of view and a steady hand.

As the writer more and more comprehends and increasingly appreciates the grave responsibilities, the nervous tasks, which are the lot of every busy doctor, the wonder to him is, not that so many of this great profession die in the very fullness of their powers and strength, but that any of them attain serene old age. Quietly making his rounds in the hospitals or his calls upon the sick at their homes, listening to the constant histories of pain and suffering, the worries and the fears of friends, supported only by his own fortitude and strong will, the doctor goes about his work painstakingly applying all the results of his study and his professional knowledge for the alleviation of pain and suffering for the benefit of mankind. Unheralded and unsung, ofttimes bitterly assailed and criticized, frequently misunderstood, the doctor plies his troubled way through life wherein mayhap the only award awaiting him is the possession of a quiet conscience and the consciousness of work well done.

Much has been said in criticism of the medical profession; its virtues go unproclaimed.

It is, therefore, not only a privilege, but it is in a very real sense the duty of every physician to dedicate some part of his year to recreation, rest and peace. Just now the woods, mountains and the pleasant beaches all are calling. We trust that by no member of this great profession will the call go unheard. In the hurried, hectic, troubled life of modern civilization there is all too small a place for contemplation and quiet; and yet it is in those rare moments that man finds himself and attains to those readjustments which the shocks of life so pressingly demand.

To every one of his medical friends, therefore, (and the writer now numbers these by the hundreds) a pleasant, recuperative, beneficial summer most heartily is wished. Out in the trout streams, in the forests, in and on the refreshing waters of the Atlantic, along the smooth white ribbons of road that now make the remotest corners of our land accessible, it is hoped that every doctor will seek and find the rest and recreation that he needs and to which he is so abundantly entitled.

Having carried as best he could, in court and in conference, the burden of his responsibilities, the writer himself has decided for a few weeks to get far away from the turmoils of the city, and has planned to spend the month of August upon a ranch in Wyoming. Here it is hoped that he will gain added strength for the duties of the coming year, for the championship and espousal of the rights and the just causes of the medical profession, collectively and individually.

The year has been an exacting and a difficult one, and yet the countless acts of co-operation, sympathy and friendliness have lightened his task and filled him with a new appreciation of those whom he seeks to serve

SPIRAL FRACTURE OF HUMERUS—OPEN OPERATION

A physician had rendered professional services to a patient for a period of about five months and after many unsuccessful attempts to collect for said services, instituted an action against the patient. As quite frequently happens, the answer of the defendant contained a counterclaim of alleged malpractice. Here it was charged that the defendant had been engaged to attend and treat the plaintiff for a fractured arm; that his operation and treatment was so careless and negligent that the bone of said arm was caused and allowed to over-ride and over-lap, the arm became shortened and the patient became permanently crippled and was obliged to and did expend large sums of money in procuring the services of other physicians and surgeons to correct the deformity.

On August 21st the patient was brought to defendant's office, at which time his arm was in a sling with a weight attached at the elbow and was encased in a shield of plaster paris extending from the elbow to the shoulder. The patient gave a history of having sustained a fracture of the humerus by falling when alighting from a taxi cab and striking his elbow on the sidewalk. He received treatment at a hospital where an X-ray was taken. The X-ray disclosed a spiral fracture of the humerus extending from about the middle down to the condyle with marked displacement of the fragments and separation of from three-eighths to one-half inch. The spiral fracture was about six or seven inches in length and the loose fragments were about four inches long. The examination of the arm made by the defendant disclosed that the same was bruised the entire length of the humerus and that the fragments were pulled downward by the anconaeus muscle. After his examination of the arm and of the X-rays the physician advised an open operation to properly reduce the fracture. The treatment advised was acquiesced in by the patient, but he would not submit at that time as business matters required his attention, and he stated that he would communicate with the doctor when he was ready to submit to the operation. At this time the doctor told the patient that the history of his injury sounded improbable and that if he had fallen and struck his elbow as the patient had stated he would not have had a spiral fracture but rather a transverse fracture of the humerus.

At a visit about six weeks later the patient then stated that the fracture had occurred while he was doing a hand wrestle or twisting wrists with another person. To the doctor the fracture had all the appearance of having been caused by means of ju-jutsu, as the same evidenced the use of a twisting force upon the upper arm. On August 26th the patient advised that he was ready to submit to the operation. Arrangements were then made for him to enter a hospital. The doctor had two other physicians assisting him in the performance of the operation. The three physicians examined the arm prior to the operation. No nerve involvement was disclosed by the examination. In preparation for the operation the patient was placed upon the operating table on his left side, his body being braced with sandbags and his right arm on the operating table parallel to the axis of the body. An incision was started at the external condyle, carried up through the separation of the lateral head and longitudinal head of the triceps muscle, the incision being about six or seven inches in length. The muscles and intermuscular septum were separated with blunt instruments and fingers. The periosteum was found to be torn and shattered in various places.

The tearing of the periosteum was rendered extensive by reason of the piece of loose bone which was about four inches long and one inch wide at one point. An examination of the arm through the incision did not disclose any nerve involvement. In making the incision great care was exercised so as to prevent the severance or interference with any of the nerves and to carry the incision upward and down under the muscular spiral nerve. Upon completion of the incision, the bone and fragments were cleansed, and blood clots and bruised and loose tissue removed. The humerus and fragments were then drilled and tied up with kangaroo tendons, the muscular spiral nerve being retracted from the field of operation. The bone appeared to be healthy although the surrounding tissue was discolored, bruised and anemic, which was probably caused by trauma at the time of fracture and by the length of time the arm had been neglected and not treated between the date of the reception of the fracture and the time of the operation, a period of about twelve days. The lacerated periosteum was united with chromic catgut. The muscles and fascia were united with twenty-day absorbent chromic catgut and the skin with three to ten-day absorbent light catgut. The kangaroo tendons were about forty-day absorbent tendons.

Upon completion of the operation the arm was painted with iodine, neutralized with alcohol, and antiseptic dressings applied, the forearm being placed in a perpendicular position at about 45 degrees flexion. Two days after the operation X-rays were taken which disclosed that the fracture was in perfect apposition and there was perfect alignment. In about four days the patient objected to the position in which his arm had been placed and requested the doctor to place it laterally across his body. This the doctor advised against and told the patient that it might interfere with the progress of the repair of the arm. The patient, however, was insistent and stated that he would take all the responsibility for the change in position. The doctor then, assisted by the two physicians who assisted him at the operation, cut a piece from the posterior side of the cast, about six inches in length and three inches in width. He then with sterile dressing grasped the upper arm between the thumb and forefinger, supported the wrist with his left hand and rotated the humerus in the subglenoid cavity, placing the forearm in a lateral position horizontal to and across the body. In making this change of position the fracture and the elbow were not disturbed. After the change in the position of the arm the patient left the hospital on several occasions and went to his place of business, returning to the hospital. Seven days after the operation he was discharged from the hospital. While in the hospital he was seen daily by the physician and a general examination made of his condition and his temperature taken so as to determine the presence or absence of any infection. After leaving the hospital the patient visited the doctor at his office several times a week until the following November. On these visits examination was made and the portions of his body around the cast were cleansed with alcohol and care taken to prevent any abrasions by friction.

On September 10th further X-rays were taken, an examination of which showed a separation of the fragments of about ⅛ of an inch near the condyle. The doctor felt that this separation was caused at the time of the change in position of the arm from the perpendicular to the horizontal. In order to overcome and correct the separation, the posterior portion of the cast at the elbow was removed and a wooden splint inserted over the sterile dressing.

In October, X-rays were again taken which showed about 1-16 of an inch separation. The callus formation and the healing process were good and the fragments in good position. The doctor advised the patient that due to the nature of the fracture the tearing of the periosteum and the bruised and anemic condition of the tissues, the callus would be slow in forming and that he would probably have to have the cast on for about ninety days. In the latter part of October the large cast over the body and arm was removed. Examination of the arm at the site of the fracture did not disclose any nerve impairment or atrophy of the muscles other than by non-usage. Tests were made to determine the ability of the patient to function the arm. Examination at this time also disclosed that there was perfect union of the incision, with no discharge from any part of the incision and no stitch abscesses. The arm was then cleansed with benzine and alcohol and tested for flexion and extension. The extension was about 170 degrees with a full 90 degree flexion. The arm was rebandaged with sterile dressings and a light cast applied, extending from the elbow to the shoulder and held in position by adhesive tape attached to the body above the shoulder and the arm below the elbow. No shortening of the arm was found at this time. When the large cast was removed the arm was massaged with oil and active and passive motion given. The small cast was removed in the latter part of November. While this cast was on, the patient called at the doctor's office several times, when the arm was examined and massaged and active and passive motion given. At the time of removal of the small cast, on palpating the arm there was a feeling of solidness, showing good condition of the fractured bone. Tests were made by having the patient rotate, flex and extend the arm, and no impairment of function of the fingers, hand, wrist, elbow or shoulder was observed, the patient having complete use of the arm and no nerve involvement or atrophy of the muscles, except such atrophy as was due to non-usage while the arm was in the cast.

The light cast after being placed upon the arm was slit down so that it could be removed and examination made of the arm, and also massage, active and passive motion given.

The patient stated to various persons that the physician was the one who had saved his arm, and in the following March, while at the physician's home, the patient lifted with both his hands and arms a jar weighing about sixty pounds.

The patient, in his complaint against the physician, charged that by reason of the physician's negligence and carelessness in the treatment and reduction of the fracture, the patient's arm was shortened about one inch and that the function of the same was also impaired, thereby causing him permanent deformity and disability. This malpractice claim was asserted solely because the physician attempted to enforce the patient's obligation to compensate the physician for the value of the services which he had rendered.

During the pendency of the action this physician died, the action abating by reason of his death.

ABRASION OF BREAST WHILE APPLYING BANDAGE

A woman about thirty years of age sought to recover damages for an infection of the breast claimed to be due to defendant's negligence while treating and bandaging a dislocated shoulder, it being charged that while applying the dressings, through the physician's negligence a safety pin lacerated the breast which later became infected.

This plaintiff, suffering from a dislocation of the right shoulder, came into the hospital where the defendant was in attendance. She was brought to the operating room and the preliminary care given her by a physician assisting the defendant.

An examination was made of her dislocation and a general anaesthesia administered to her and the dislocation reduced. The bandage was applied by the defendant's assistant.

The patient was next seen by the defendant at his office, two days later, and upon removal of the bandage he found a slight abrasion of the breast; the patient stating that at the time of the application of the bandage a safety pin had abrased the breast. When seen a week later the abrasion had entirely disappeared; the dislocated shoulder was in good condition, and the patient discharged from further care.

When the case came on for trial, the plaintiff not appearing to prosecute, the complaint was dismissed.

NEWS NOTES

THE ARMY MEDICAL FIELD SERVICE SCHOOL

The annual two weeks' course for Medical Reserve Officers of the United States Army was held on July 3-17 at Carlisle Barracks, Pennsylvania, and was attended by over 300 officers from the northeastern states. New York State was represented by 58 physicians, 15 dentists, 6 veterinarians, 12 medical administration officers, and 6 belonging to the Sanitary Corps. The Medical Administration Corps consists largely of pharmacists and clerks from medical supply houses, and their duty is the handling of the extensive medical supplies that an army needs. The Sanitary Corps includes such non-medical officers as sanitary engineers and laboratory technicians. All the various branches are coordinated under the command of a physician.

The basic unit of medical service to an army in the field is the Medical Regiment of a division of troops. With each fighting regiment has a medical service consisting of 7 physicians and 2 dentists. These officers are prepared to give first aid only, such as that which any physician is qualified to give in emergencies. The transportation and care of the seriously wounded and the sick belong to the division, which has a medical regiment of over 800 enlisted men and 69 officers under the command of a colonel who is a physician.

The instruction given at Carlisle is that which concerns the Medical Regiment of the Division, for the scope of its activities has no counterpart in civil life. The work done by officers with combat regiments is like that in private practice; and that in hospitals behind the fighting area is almost exactly like that in civil hospitals. But the work of the Medical Regiment of a division of troops differs from that in civil or industrial life. It is peculiar, in that medical service is not brought to the sick and wounded of an army in the field; but the incapacitated soldiers are transported to hospitals often for several miles in the rear. The peculiar work of the Medical Regiment is to transport the sick and wounded from the field to the hospital quickly, comfortably, and safely. This involves the application of first-aid dressings, the preparation of the patients for a journey of from five to ten miles, and carrying them on litters for a mile or more to places where the ambulances can reach them, and the maintenance of ambulance routes for taking patients back to the hospitals and bringing supplies into the combat zone. All these details are now standardized and systematized under the command of a medical colonel who is a member of the Staff of the Major-General in command of the Division, and has authority and responsibility equal to that of the commander of artillery or the quartermaster.

The Field Service School gave the Medical Reserve Officers a two-weeks' intensive training along the special lines that are peculiar to the Medical Regiment of the Division. The first week's work was largely explanatory; but that of the second week was practical. An actual problem was given, consisting of a battle staged over twenty-five square miles of territory extending for twenty miles northwest of Carlisle. The student officers were required to make a complete reconnaissance of the territory with the aid of U. S. Geological maps, and to familiarize themselves with the features of the land with special reference to roads, shelter, and water. The mornings were spent in automobiles making the reconnaissance, and the afternoons were given to the placing of the collecting and hospital stations, and establishing command posts at strategical points.

Each officer was required to write out the field order for the day. That of the first day was for a division which had met the enemy in an unexpected engagement. The order of the second day was for a prepared attack, while that of the third day was for a withdrawal in the face of a hostile enemy. One may judge the importance of the work of the Medical Regiment when one realizes that about one-tenth of the men engaged in a battle will receive major wounds, and will require medical attention and transportation through the maze of marching troops and trains of ammunition and supplies.

This was the fifth year of the Field Service School, and the instruction was on a higher plane than ever before. The Medical Officers came to camp and lived as units under the command and control of their own officers. The 302nd Medical Regiment, belonging to the 77th Division—that from Greater New York—was the largest group, and comprised of 31 men. Each officer in the unit was required to write the order which he would issue in actual combat. The first period of the morning was given to a critique of the orders written the previous afternoon.

The Medical Regiment of the Division has been created since the world war, and its functions have been developed at the Field Service School, which is the "West Point" of the Medical Officers. Books on the functions of the Medical Regiment have been written by the Regular Army instructors stationed at Carlisle, and are the basis of the instruction at the Post, and of an extensive series of correspondence courses that are conducted by the Regular Army.

A six-weeks' field course for R. O. T. C. medical students was also going on at the same time with the course for Medical Officers, with about 500 in attendance. These lived in tents adjoining those of the Medical Officers. They were given basic training in the duties of the soldier, especially those points having a medical significance. They learned how to make and carry their own packs, how to carry litters, to load ambulances, and how to set up hospital tents and handle the standard Army medical supplies. They also drilled with service rifles, and took part in a grand review in honor of General Summerall, who praised them for their soldierly bearing.

The Army Field Service School has an exceedingly important place in medical affairs of this country. It has trained a thousand medical men and two thousand medical students, and has prepared them to perform the duties which will devolve upon the medical profession if an emergency should occur. This body of trained men demonstrates that the medical and allied professions will be prepared to do their part in the next National emergency.

THE TYPHOID EPIDEMIC IN MONTREAL

The July eleventh issue of *Health News,* the weekly official publication of the New York State Department of Health, contains the following article entitled "Authentic Information on the Montreal Typhoid Epidemic."—Editorial Note.

Since about the middle of February a severe epidemic of typhoid fever has been prevailing in the city of Montreal, Canada, with a case incidence in proportion to population probably unprecedented by any other large city in the world within the present century. Up to the first of the present month information as to the cause of the outbreak, said to be milk-borne, was very unsatisfactory, notwithstanding efforts of the Commissioner of Health of this state and health officials of other states to ascertain the facts.

With the permission of the Deputy Minister of Health of Canada, the Surgeon General of the United States Public Health Service sent a board consisting of three medical officers and a sanitary engineer to Montreal for the purpose of securing epidemiological data and ascertaining what additional measures might be necessary for health officers to enforce in this country against the spread of typhoid fever from that city.

This board, consisting of Dr. L. L. Lumsden, chairman, Drs. J. P. Leake and C. E. Waller, medical officers and H. R. Crohurst, sanitary engineer, began their survey in Montreal on June 18 and continued until June 29. Their conclusions and recommendations are in brief as follows:

Conclusions

"1. The typhoid fever epidemic in Montreal, Canada, since February 15, 1927, was beyond reasonable doubt caused by infection distributed in the output of milk from the plant of the Montreal Dairy Company, Ltd., in that city.

"2. Though contributory infection may have been introduced into the milk at one or more of the four stations or within the plant in Montreal, the preponderance of evidence is that the bulk of the infection was introduced into the milk at the farm sources and was enabled to multiply before the milk reached the city plant.

"3. Though it was barely possible for a very small proportion of whatever infection was in the milk to pass through the pasteurization machine without being heated long enough and at a high enough temperature to be destroyed, the preponderance of evidence is that a very considerable proportion of the infected milk was passed through and distributed from the plant without being subjected to pasteurization treatment.

"4. A large proportion of the milk which at the beginning of the epidemic was distributed through the dairy plant and which is now presumably being distributed through other plants or channels to consumers in Montreal and elsewhere is not now being officially controlled in such manner as to preclude its possible menace to the public health.

"5. Montreal is not yet a comparatively safe city for visitors, who are likely to be susceptible to typhoid fever infection.

"6. Milk and milk products derived from sources within the general vicinity of Montreal do not appear to be produced or processed under satisfactory sanitary conditions nor under official health supervision approaching adequacy.

RECOMMENDATIONS

"1. That state and local health officials and other persons concerned be advised that Montreal is not now, from a typhoid fever standpoint, a comparatively safe city for tourists from the United States to visit and is not likely to be such for months yet to come, unless local health service in the city of Montreal and the vicinity thereof promptly is made much more nearly adequate than it now is.

"2. That such steps as may be necessary be taken to encourage or bring about under proper official supervision radical improvement in sanitary conditions under which milk and milk products are produced, handled or processed in the city of Montreal or at any other place in the Province of Quebec within a radius of one hundred miles of the city of Montreal for export to the United States; and that such milk or milk products after reaching points to which shipped in this country and before being distributed to consumers be pasteurized or otherwise processed under official supervision so as to be rendered free from typhoid, tuberculosis or any other infection likely to endanger human health."

The use of milk and cream from Montreal on dining cars bound for the United States has been forbidden for some time. The same restriction pertains to vessels operating between Montreal and American ports. As the reported source of the epidemic appeared to be due entirely to milk, common carriers have not been forbidden to take on water supplies in that city.

New York City has placed an embargo on milk and cream coming from Montreal and adjacent territory. The same embargo if not effective now should be enforced by health officers of all upstate cities receiving any milk or cream from this source. Residents of this state visiting Montreal are advised to drink no milk or cream while in that city and, as an added precaution, should be immunized against typhoid fever.

The report of the Surgeon General states that in the period March-June 28, there were 4,756 cases of typhoid fever and 453 deaths from that disease in the city of Montreal. For the 10 days ending June 28, the number of new cases averaged 10 per day, mostly contacts. Under the circumstances, no change will be made for the present in the embargo against milk and milk products coming from Montreal.

A chart attached to the Public Health Service report shows that the first high peak of cases reported (160) was reached toward the end of March. The number of cases then fell sharply and remained at a fairly low level until the third week in May when two high peaks occurred three days apart (both 158) almost as great as the first.

In searching for the specific conditions which would permit such an epidemic to rage in a city of approximately 600,000 population, the following paragraphs in the report stand out as particularly significant:

ADEQUACY OF LOCAL HEALTH SERVICE

"When the epidemic began, the city health department was operating on an annual budgetary basis of 40 cents per capita. The working force has since been augmented by the employment of four sanitary inspectors. Only one inspector is especially engaged in inspection of pasteurization plants, of which there are 41 or 42 in the city, and he is said to devote a considerable proportion of his time to other duties. The conditions generally found on the dairy farms indicate that the sanitary control of these farms has been and is yet far from adequate.

"Only eight health nurses are now engaged in communicable disease control work in Montreal. With over 3,000 typhoid cases or convalescents at homes in the city, and with the usual prevalence of other communicable disease, the inadequacy of such a small force of nurses is obvious.

"Our definite impression is that the city health officer of Montreal has honestly and sincerely recognized his responsibilities during the epidemic and has done his best to render efficient service under most difficult and trying circumstances. It is evident that he should be given ample authority and adequate efficient personnel at once to cope effectively with the present typhoid situation and with other serious preventable disease situations which are likely under existing conditions to develop in Montreal in the future. Such provision is of critical importance to all people of the city and would be to the business interests of all the citizens and especially of those who may profit from tourist traffic. Since the epidemic began the city health forces have been augmented by the temporary detail of two sanitary engineers and one sanitary inspector from the Provincial health department. This Provincial force took charge of the milk plant and the creamery of the Montreal Dairy Co., Ltd., on May 21, and apparently has managed them since in a highly efficient manner."

THE CENTENARY OF "BRIGHT'S DISEASE"

In 1827 there appeared a two volume publication entitled "Reports of Medical Cases selected with a view of illustrating the smyptoms and cure of diseases by a reference to morbid anatomy." It was by Richard Bright, then in the thirty-eighth year of his age, and was a record of cases treated by him during his six years of medical service at Guy's Hospital, London. This publication contained the first clear recognition of the entity of common diseases of the kidneys. His description of nephritis was so clear and complete that the sickness has ever since been popularly known as Bright's disease.

The New York Academy of Medicine is recognizing the centenary of the publication of the "Reports of Medical Cases" by an exhibit of the books of the author and of articles relating to his life. Among the exhibits is the *London Lancet* of October 10, 1925, which on page 769 contains a concise description of the life of Dr. Bright and his investigations into the nature of nephritis, by Sir William Hale-White, M.D., Consulting Physician to Guy's Hospital, in which Dr. Bright did his work. The occasion for the article was that of the first patient, John King, whose case was reported in Dr. Bright's book and who was admitted into Guy's Hospital on October 12, 1825. Dr. Hale-White says:

> "On October 12th, 1825, there was admitted into Guy's Hospital, under the care of Dr. Bright, one John King, an intemperate sailor, suffering from general oedema, scanty urine, and pain in the loins. He had haematuria but this passed away, and the urine, when clear, coagulated if heated; the pulse was hard. The sectio cadaveris revealed acute pericarditis, oedema of the lungs, pleural effusion, a large heart, and ascites. In Bright's own words:—
>
> 'The kidneys were completely granulated throughout; externally the surface rough and uneven; internally all traces of natural organization nearly gone, except in the tubal parts. This is a well-marked example of a granulated condition of the kidneys connected with the secretion of a coagulable urine.'
>
> "He inclines to the opinion that the 'disease of the kidney was the first established.' He considers that neither the disease of the lungs, pleura, nor heart was the primary condition, nor was there any disease of the liver to explain the ascites He points out that pain in the loins is a symptom of renal disease, and that 'the tendency to inflammatory affection in this man was a striking feature in his case and appears to me connected immediately with the condition of the kidneys."

This case was the first one of a group of twenty-three cases of nephritis which were published in the first 126 pages of Volume One. Doctor Bright's description of kidney diseases was surprisingly modern, and his deductions regarding their primary origin in the kidneys is true to present day pathology. He did for kidney diseases what his great French contemporary, Laennec, did for pulmonary diseases. A second series of reports on kidney diseases appeared in Guy's Hospital Reports of 1836, in the form of two papers in which the symptoms, pathology and treatment are accurately described. Regarding these papers Dr. Hale-White says:

> "Assuredly this is one of the most astonishing series of papers in medical literature. A disease, which presents symptoms of derangement of almost every organ in the body, is unerringly ascribed to the kidney. We are shown how to diagnose it. The description of its causes, its symptoms, its treatment, and its post-mortem appearances is so complete and accurate that after nearly a century no error has been detected and, if we except a few facts that have been gleaned by instruments which Bright did not possess, nothing of importance has been added."

Dr. Richard Bright was born in Bristol, England on September 28, 1789 and died in 1858, aged 69 years. He graduated in medicine from Edinburgh in 1812, and was made a licentiate of the Royal College of Physicians in 1816. He travelled extensively in his younger days. He made a trip to Iceland and two through the continent of Europe, and published his observations in several books which he illustrated with his own drawings. He became intensely devoted to the practice of medicine and to pathological research and spent six hours daily in Guy's Hospital. He was recognized as one of the great medical leaders of his time, and in 1837 was made physician to Queen Victoria. He was friendly to his colleagues and always gave them credit for their assistance.

CATTARAUGUS COUNTY MEDICAL SOCIETY

The Cattaraugus County Medical Society has adopted the plan of issuing bulletins to its members, thus allying itself with the Medical Societies of the Counties of New York, Erie, Kings, Queens, Suffolk and Bronx which already have bulletins.

Bulletin Number One of the Cattaraugus County Medical Society is dated July 6, 1927, and is here printed in full.—Editorial Note.

The 1927 Annual Meeting

The annual meeting for 1927 was held on May 17th, at Salamanca. The annual meeting has in the past been held in January but, due to the inclement weather then, it was felt that an annual meeting in a warmer month would be more convenient. The matter was discussed at the January meeting, a motion being introduced to amend the by-laws in this regard.

Members present at the annual meeting were: Drs. Happell, Hicks, Bennett, Johnston, Williams, Howard, J. Ross Allen, Runals, Atkins, Reimann, Sheldon, Taggert, Greenleaf, Preston, Hillsman, Garen, Lawler, R. B. Morris.

Guests present were: Archibald Dean, our District State Health Officer, Joseph A. Wintermantel, M.D., and Travis P. Burroughs, M.D. (the latter two were elected to membership).

Business transacted: The matter of illegal practitioners, with especial consideration of the situation in Salamanca, was taken up. Following discussion the matter was referred to the Legislative Committee.

The by-laws were amended, making the time of the annual meeting the first Tuesday in May of each year.

The need for a committee on public relations was discussed. Upon motion the Committee on Public Health was enlarged by the addition of two members, and charged with the consideration of public relations. This committee is now the Committee on Public Health and Public Relations.

The following new members were elected: Dr. Joseph A. Wintermantel, Allegany; Dr. Joseph Mountain, Olean; Dr. Travis P. Burroughs, West Valley.

A brief talk was given by Dr. Dean, regarding post-graduate courses.

Dr. C. A. Lawler was appointed to act as a committee of one to arrange the details of post-graduate courses.

The Committee on Public Health gave a brief summary of its activities.

The secretary and treasurer reported for the year that there is a balance of $196.50 in the treasury; the membership is now 54; and 26 members of the Society carry group insurance.

The following officers were re-elected: Dr. J. P. Garen, Olean, President; Dr. C. A. Lawler, Salamanca, Vice-President; Dr. R. B. Morris, Olean, Secretary-Treasurer.

The censors elected were: W. B. Johnston, A. L. Runals, J. A. Taggert, M. C. Hawley, J. Ross Allen.

Delegate to the State Society: M. E. Fisher; alternate, C. M. Walrath.

The new Legislative Committee is: C. M. Walrath, Ellicottville, Chairman; M. G. Sheldon, Olean; J. A. Wintermantel, Allegany.

The new Committee on Public Health and Public Relations is: L. J. Atkins, Olean, Chairman; P. H. Bourne, Salamanca; W. E. MacDuffie, Olean; Leo Reimann, Franklinville; F. E. Howard, Olean.

Dr. M. E. Fisher read a paper reporting a case of undulant fever. There was a good amount of real discussion. (Dr. Fisher's paper has been published in the *State Journal of Medicine,* issue of July 1.)

Increasing interest is being shown in the relations between the medical profession, official public health bodies, and the unofficial (lay) health organizations.

Be sure and read: (1) The Relations of the Physician to Public Health—Hugh S. Cumming, M.D.; (2) The Physician and the Public Health—Harlow Brooks, M.D.

Both of these articles are in the *Journal American Medical Association,* July 2, 1927.

DISTRICT BRANCH MEETINGS

Accounts of the preliminary conferences on the fall meeting of the District Branches were printed on page 736 of the July first issue of this Journal. The most recent information is that the times and places for holding the meetings are as follows:

First District, October 20, in the Bronx.

Second District, some time in November, probably in Jamaica.

Third District, October 1, in Troy.

Fourth District, October 11-12, in Schenectady.

Fifth District, October 13, in Syracuse.

Sixth District, September 27, probably in Johnson City.

Seventh District, September 28, in Geneva.

Eighth District, October 6, in Glen Ayr.

THE DAILY PRESS

THE ROCKEFELLER FOUNDATION

Two great institutions for the promotion of scientific medicine are associated with the name of Rockefeller. There is the Rockefeller Institute for Medical Research, and there is the Rockefeller Foundation which makes practical application of the principles of medical knowledge to backward communities over the whole world. Concerning the Rockefeller Foundation the New York *Herald Tribune* of June 23 says editorially under the caption "St. George and the Dragon":

"One American institution spent nearly ten million dollars last year in promoting health throughout the world. Such great things have been done by it in other years that the magnitude and beneficence of its undertakings are not realized. The mere mention of the name 'Rockefeller Foundation' so promptly enlarges expectations as to prevent due appreciation of its service to humanity.

"The brief review of the year 1926 by Dr. Vincent, President of the Rockefeller Foundation, with all its impersonality and absence of apppealing illustrations of healing, is a document as full of the material of romance and chivalry as the Idylls of the King. St. George is fighting the dragon in a realistic and scientific way, whether the dragon be the hookworm in twenty-one different countries, yellow fever in two continents, or malaria in a dozen lands besides several of our own States. There is an even higher kind of service in providing for nurse training, helping medical schools to demonstrate plans for improvement in education, organizing rural health centres, supporting fellowships (889) for men and women from forty-eight different countries, and doing a score of other things to make the world a safer place to live in."

Physicians generally approve the editorial in both its spirit and its letter.

PUBLIC SAFETY PERIOD

The three weeks beginning on July 18 have been set aside by Governor Smith as a Public Safety Period, with special reference to automobiles. The New York *Times,* of July 18, says editorially:

"The State Commissioner of Motor Vehicles has arranged with garage owners and service stations throughout the state to make free inspections of automobiles and their equipment at any time up to August 6."

But the auto is at fault less often than the man who drives it. Concerning this point, the *Times* says: "Yet it cannot be held that mechanical defects are the principal cause of the accident rate. Carelessness, drunkenness, speeding, reckless disregard of traffic regulations, take the heavier toll. But it is nevertheless true that a considerable proportion of motor-vehicle accidents is directly chargeable to faulty mechanism. Such accidents are particularly inexcusable, for they generally arise from sheer negligence. Nine out of ten of them could be prevented by regular inspection."

The New York *Herald Tribune,* of July 19, gives the following outline of the safety tests which garage men will apply to a car:

TEST BRAKES

Requirements:

2-Wheel Brakes—Car going 20 m. p. h. must stop in 50 feet.

4-Wheel Brakes—Car going 20 m. p. h. must stop in 35 feet.

Emergency Brakes—Car going 20 m. p. h. must stop in 75 feet.

Truck over 3 tons going 20 m. p. h. must stop in 75 feet by foot brake.

[Note—if you use a brake testing device, the equivalent of the above is required.]

TEST HORN

Requirements:

Press button and determine whether signal gives sufficient warning.

TEST LIGHTS

Requirements:

(a) New York State law requires 21 c. p. bulbs in headlights. Bulbs showing signs of blackening or a whitish discoloration inside of the glass are inefficient and should be discarded. They no longer give 21 c. p.

(b) All bulbs which are burned out or missing must be replaced.

(c) Lights must have proper lens, and reflectors must be bright.

(d) All tail lamps must have a red lens.

TEST STEERING MECHANISM

Requirements:

Wearing parts must appear to be sufficiently strong so as not to indicate any possibility of breaking under ordinary conditions, thus causing an accident.

TRUCK MIRRORS

Requirements:

New York State law requires all trucks to be equipped with a mirror in such condition and so placed as to give rear visibility.

The time required for the inspection (no repairs or adjustments included) should be about ten minutes.

ENFORCING THE MEDICAL PRACTICE ACT

The enforcement of the Medical Practice Act depends on at least five factors:

1. The law.
2. The prosecutor.
3. The judge.
4. The jury.
5. The social status of the accused.

The law regarding the practice of medicine is as clear and competent as any law can be.

The leading prosecutor of violators of the law is the State Department of Education whose representatives are conscientiously eager to enforce the law and protect the people against ignorant healers.

But now comes the weak part of the chain of procedure which leads to the conviction of quacks and the protection of the public. The final decision regarding the violators rests with judges and jurymen, many of whom are not familiar with the spirit and intent of the law, and know little of the scientific basis on which the Medical Practice Act is founded. It seems to be the psychology of judges and jurymen that their decision of conviction must be based on actual damage claimed by one who has been mistreated. It is not sufficient to show that the act of the defendant is illegal, and might result in injury or death, nor is the evidence of a hired detective usually sufficient, as is seen in the case of the chiropractor on Staten Island, where the judge decided that no law had been violated although the defendant had treated a women detective for pay (see this JOURNAL, May 1, 1927, page 498). The Department of Education has found that two of the greatest elements that are lacking in the prosecution of quacks are, first, the unwillingness of the recipients of treatment to testify against the healers; and second, the attitude of the judges in holding that the practice of quackery constitutes merely a minor fraud.

However, the fifth element of the social status of the defendant enters into prosecutions against quacks. When a man goes in good society, maintains a showy office and dwelling house, and has a big bank account, the presumption of innocence is overwhelmingly in his favor when he is accused of violating a law. He is likely to be crowned as a martyr, and his prosecutors to be criticized for narrowness. An Indian is likely to be immune from prosecution for quackery, for the people generally believe in the potency of Indian medicines, and it was even written into the state law of the early '30s that any one could use native herbs in the treatment of diseases. The Department of Education has recently failed in securing an indictment against an Indian healer in Oneida County, apparently because he was a native Indian. But the Department has had success against ignorant foreigners. The Rochester *Times-Union*, of June 26, says:

"Emilio Michelotti, of 1384 Clifford Avenue, may have been a physician in Italy, but he is not a doctor in this country, it was proved yesterday afternoon in City Court. He was found guilty of practising without a license. Judge Kohlmetz fined him two hundred dollars. Deputy Attorney-General George Fleckenstein prosecuted."

An example of the successful prosecution of two colored quacks is recorded in the New York *Herald Tribune* of July 19. The newspaper gives an amusing description of two negroes who handled trunks by day and demons at night. They assured Mrs. S. that the demons of rheumatism which tortured her would leave if they received a bribe. The patient produced the money, and went with the healers to the cemetery gate at night during a rain storm, where the healers bargained with the demons to let Mrs. S. alone on payment of $250. The money was thrown over the graveyard wall and the healers told Mrs. S. that "if the ghosts did not throw it back, it was a sign that the bribe was sufficient and that her rheumatism would be cured within a day. They waited at the gate of the cemetery for a half hour, and when the ghosts did not return the box, Mrs. S. trudged through rain to her home and went to bed, serenly confident that her troubles were over.

"However, something had gone wrong and when she awoke the next morning her rheumatism was so much worse that she could not get out of bed. A skeptical doctor told her she had had no business going out in the rain, and when she confided to him the story of the magical ceremony, he notified the police.

"Last night Professor Alsa Rajah and Professor Euba were arrested, charged with grand larceny. Professor Alsa Rajah told the police that he could not understand it; that he had actually put the money into the box and thrown it over the wall. He suggested that the ghosts must have double-crossed him. The police, however, do not believe that the double-crosser was a ghost."

One can readily imagine the contrast between the reception which the court gave to the negroes and that which it would give to an elegant chiropractor who demanded and got $250 for promising to expel rheumatism from a suffering woman. But after all, convictions of any illegal healer will prepare the way for the conviction of all regardless of their status in the community.

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

Birth Injuries of the Central Nervous System. Part 1—Cerebral Birth Injuries. By Frank R. Ford. Part 2—Cord Birth Injuries. By Bronson Crothers and Marian C. Putnam. Octavo of 164 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1927. Cloth, $4.00. (Medicine Monographs, Volume XI.)

Urinary Surgery. A Handbook for the General Practitioner. By William Knox Irwin, M.D. 2nd Edition, revised and enlarged. 12mo of 271 pages. New York, William Wood and Company, 1927. Cloth, $4.00.

Practical Gastroscopy. By Jean Rachet, M.D. Authorized translation by Fred F. Imianitoff, D.S.C., B.A. Octavo of 148 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.50.

Principles of Chemistry. An Introductory Textbook of Inorganic, Organic and Physiological Chemistry for Nurses and Students of Home Economics and Applied Chemistry with Laboratory Experiments. By Joseph H. Roe, Ph.D. 12mo of 378 pages, illustrated. St. Louis, The C. V. Mosby Company, 1927. Cloth, $2.50.

Tiger Trails in Southern Asia. By Richard L. Sutton, M.D. Octavo of 207 pages, with 115 illustrations. St. Louis, The C. V. Mosby Company, 1926. Cloth, $2.25.

Management of the Sick Infant. By Langley Porter, B.S., M.D., and William E. Carter, M.D. 3rd Edition, revised. Octavo of 726 pages, illustrated. St. Louis, The C. V. Mosby Company, 1927. Cloth, $8.50.

Examination of Children by Clinical and Laboratory Methods. By Abraham Levinson, B.S., M.D. 2nd Edition. Octavo of 192 pages, with 85 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $3.50.

Venereal Disease: Its Prevention, Symptoms, and Treatment. By Hugh Wansey Bayly, M.D. 3rd Edition. Octavo of 242 pages, illustrated. London, Faber and Gwyer, Ltd., 1927. Cloth, 10/6.

The Medicine Man. Being the Memoirs of Fifty Years of Medical Progress. By E. C. Dudley, M.D. Octavo of 369 pages, illustrated. New York, J. H. Sears and Company, Inc., 1927. Cloth, $3.50.

A Text-Book of Medicine. By American Authors. Edited by Russell L. Cecil, A.B., M.D. Octavo of 1500 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $9.00.

The Heart and Its Diseases. A Handbook for Students and Practitioners. By Charles W. Chapman, M.D. 12mo of 216 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $3.50.

Practical Methods in the Diagnosis and Treatment of Venereal Diseases. For Medical Practitioners and Students. By David Lees, D.S.O., M.A., M.B. 12mo of 605 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.00.

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. Forty-fifth Year. Octavo of 560 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

Röntgen Rays in Dermatology. A Handbook for Practitioners and Students. By L. Arzt, M.D., and H. Fuhs, M.D. Octavo of 202 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

Should We Be Vaccinated? A Survey of the Controversy in its Historical and Scientific Aspects. By Bernhard J. Stern. 12mo of 146 pages. New York and London, Harper and Brothers, 1927. Cloth, $1.50.

Interpreters of Nature. Essays by Sir George Newman, K.C.B., M.D. Octavo of 296 pages. London, Faber and Gwyer 1,927. Cloth, 12s. 6d. net.

Social Factors in Medical Progress. By Bernhard J. Stern, Ph.D. Octavo of 136 pages. New York, Columbia University Press, 1927. Cloth, $2.25.

The Normal Chest of the Adult and the Child. Including Applied Anatomy, Applied Physiology, X-Ray and Physical Findings. By J. A. Myers. In collaboration with S. Marx White, and others. With an introduction by Elias P. Lyon. Octavo of 419 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $5.00.

The Practical Medicine Series. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Series 1926. Chicago, The Year Book Publishers, 1926. General Therapeutics. Edited by Bernard Fantus, M.S., M.D. 12mo of 399 pages, illustrated. Cloth, $2.25. Price of the series of eight volumes, $15.00.

Great Britain—Statistical Report of the Health of the Navy for the Year 1924. Octavo of 127 pages. London, His Majesty's Stationery Office, 1927. Paper, 4s. 6d.

Intracranial Tumors and Some Errors in Their Diagnosis. By Sir James Purves-Stewart. Octavo of 206 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $3.75. (Oxford Medical Publications.)

A Handbook of Diseases of the Stomach. By Stanley Wyard, M.D. Octavo of 387 pages. New York and London, Oxford University Press, 1927. Cloth, $5.00. (Oxford Medical Publications.)

Manual of Bacteriology. By Robert Muir, M.A., M.D., and the late James Ritchie, M.A., M.D. 8th Edition. Revised with the co-operation of Carl H. Browning, M.D., and Thomas J. Mackie, M.D. 12mo of 821 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $4.75. (Oxford Medical Publications.)

BOOK REVIEWS

THE PSYCHO-PATHOLOGY OF TUBERCULOSIS. By D. G. MACLEOD MUNRO, M.D. 12mo of 92 pages. London and New York, Oxford University Press [1926]. Cloth, $1.75. (Oxford Medical Publications).

This is an interesting group of essays on the Psychopathology of Pulmonary Tuberculosis, that is well worthy of perusal.

It can be read through in about one-half hour and while contributing nothing new or striking, is of value in reminding us that the personality of an individual suffering from Tuberculosis is subject to many alterations during the progress of the disease and requires as much consideration as does the disease itself.

FOSTER MURRAY.

MOTHER AND UNBORN CHILD. A Little Book of Information and Advice for the Prospective Mother. By SAMUEL RAYNOR MEAKER. Octavo of 209 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50.

Another little book of information and advice for the prospective mother which answers very satisfactorily the questions which arise during the antenatal period, and covers the lying-in period as well. Simply and well told —not too much is said at any time. The title is different, and possibly poorly selected—but the book is otherwise well done.

C. A. G.

OUTLINES OF COMMON SKIN DISEASES INCLUDING ERUPTIVE FEVERS. By T. CASPAR GILCHRIST, M.D. Octavo of 54 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $1.50.

This book of pocket size is not meant to teach completely the characteristics of the common skin diseases which it includes but is intended as an outline by which the uninitiated in dermatology may be enabled to determine what cutaneous disease is causing a patient distress. The diseases, which are described in almost telegraphic style, are grouped under headings of both type of lesion, and regional distribution. Brief suggestions as to treatment are also included. A physician who, by the aid of this book, might determine his patient's ailment would, however, do well to refer to a larger text for a more complete description of the disease and its treatment than is possible or desirable in a book of this size. The few photographic reproductions in the text are really excellent.

E. ALMORE GAUVAIN.

MEDICAL CLINICS OF NORTH AMERICA. Vol. 10, No. 1. July, 1926. (Philadelphia Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

The issue is replete with interesting and worthwhile articles on common and rare conditions. The article by Dr. Strecker is of interest and practical importance. Chronic Phosphorus poisoning is discussed, and cases presented. The latest treatment for polycythemia is discussed and a case presented.

MEDICAL CLINICS OF NORTH AMERICA. Vol. 10, No. 2. September, 1926. (Philadelphia Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Riesman presents a new word into medical nomenclature in this issue. "Myocardosis," which aims to cover those cases of chronic myocardial failure in which the signs of inflammation are lacking. This word will probably become popular. Another cause of backache is presented, and will probably be taken up in other quarters, as that complaint is a source of much thought. Dr. Stroud's article on Auricular Fibrillation contains the expression frequently, "The rhythm was definitely that of auricular fibrillation." Hitherto, the one characteristic feature of auricular fibrillation was the complete lack of rhythm. One or the other of these two words is poorly understood by the doctor. Articles on Jaundice, Tuberculosis, Hodgkin's Disease, and other subjects, make this issue of value.

THE MEDICAL CLINICS OF NORTH AMERICA. Vol. 10, No. 3. November, 1926. (Mayo Clinic number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Paper, $12.00 net; Cloth, $16.00 net.

A multiplicity of subjects are discussed in this number from the case standpoint. Often inferences from the history do not seem to be justified by the final diagnosis, as is particularly illustrated in Case 3 and 4 by Dr. Logan. It would be interesting to know why Dr. Plummer gave his patient with myxedema thyroid extract in preference to thyroxin by mouth. The discussion by Dr. Hench concerning the education of patients with arthritis is interesting, but when the doctor finds himself under other circumstances he will find that the system of education recommended by himself will not avail much either for the patient or for himself. One will find in this issue treatments for many of the troublesome entities of medical practise, but a fair knowledge of pathology will prove to anyone who reads the treatments that little is to be hoped from the treatments.

J. ARTHUR BUCHANAN.

HELIOTHERAPY. With Special Consideration of Surgical Tuberculosis. By A. ROLLIER, M.D. [Second Edition]. Translated by G. DE SWIETOCHOWSKI, M.D. Octavo of 318 pages, illustrated. London and New York, Oxford University Press [1927]. Cloth, $6.25. (Oxford Medical Publications).

Dr. Rollier has done much more than pioneer work in Heliotherapy, and in this, the second edition of his book, he presents a most interesting and instructive volume. There are many excellent and convincing photographs with which Dr. Rollier substantiates his sometimes broad claims. Many readers will doubtless take exception to the criticism of surgical interference, but they must remember that this is based on years of observation of many cases. The tables of dosage are clear and easily followed, though of more interest than value to those of us who are limited to the use of artificial substitutes for sunlight. The book is very well printed and bound and is a credit to the author and to the translator. It is a valuable addition to any library and deserves careful study by the practitioner in any branch of medicine or surgery.

JEROME WEISS.

LESSONS ON MASSAGE. By MARGARET D. PALMER. Revised and the Massage Section Rewritten by DOROTHY WOOD, M.R.C.S., L.R.C.P. Sixth Edition. Octavo of 320 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.00.

This is the sixth edition of a book which first appeared in 1901, and which from the number of reprintings seems to have enjoyed extensive popularity. The author, Mrs. Palmer, is the first person that held an appointment in the Massage Department in a London hospital, which itself, was one of the first, if not the first, hospital in London to start massage.

The book was originally founded on lessons in massage given to pupils at the London hospital, and the later editions have been elaborated by material contributed by other workers in the same field, and taken from text books on anatomy, physiology and surgery. A very valuable part of the book is that devoted to massage measures in the treatment of fractures where it is especially important to prevent the formation of adhesions and to prevent the waste of muscles, and preserve the mobility in the joints of the limb. The illustrations are fairly numerous and explanatory; and the author has had the good sense to condense the text into the smallest space compatible with exactness, also to use a system of paragraphing which makes for easy reading.

WM. HENRY DONNELLY.

THE TIRED CHILD. By MAX SEHAM, M.D., and GRETE SEHAM, Ph.D. With a foreword by ISAAC A. ABT, M.D. 12mo of 342 pages, illustrated. Philadelphia and London, J. B. Lippincott Company [c. 1926]. Cloth, $2.00.

The authors cover a very important and somewhat neglected phase of child life. The relation between fatigue malnutrition and the influence of physical and mental rest on the undernourished child has long been known. However, this subject has not been, to the reviewer's knowledge, so completely covered and set forth as has been done here. The arrangement of the book is the division of the material into three parts. Part one deals with the elemental and fundamental principles of growth and development; as well as with the psychology and physiology of work and efficiency in childhood. Part two discusses the nature, the causes, the feelings, and the associated factors of fatigue. Part three lays emphasis upon the prevention and management of chronic fatigue as it falls within the influence of the parent, school, and teacher. An enormous amount of material has been gathered into the three hundred and forty-two pages of the book, which bespeaks the tirelessness of the investigators. The subject is well covered, the type is clear, the arrangement attractive, and a very complete bibliography is set forth at the end of each chapter. This book is one out of the ordinary, both in the subject covered and in the method of setting it forth, and as such, fills a very distinct want in the treatment of children. WM. HENRY DONNELLY.

APPLIED REFRACTION. By HOMER ERASTUS SMITH, M.D. Octavo of 131 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $2.75.

The reviewer has a record of a blind spot mapped from a patient which showed a change which could have been interpreted as pathological. After the map was finished it was noted that the patient was pale, trembling and showed every evidence of terror. It developed that she was very much afraid that she was about to be hurt. In fact, some "kind friend" had told her that such an examination was very painful. She had just recovered from two serious operations, and had had much suffering. After the patient realized that there was no cause for apprehension, and was thoroughly at ease, a perfectly normal map was made. This is a very dramatic and tangible demonstration of the point which Dr. Homer Smith emphasizes so strongly in his very valuable little book on "Applied Refraction."

The reviewer, of course, does not agree in every detail with every point which the author brings out. If he did he would at least have been a twin brother to Dr. Smith. Nevertheless, one is impressed from start to finish with the orderly arrangement and thorough understanding of the factors as worked out.

Chapter II deals with the test chart. A single form is recommended.

Chapter III discusses the trial case very nicely and Chapter IV the frame. Expansion of these chapters would be very valuable.

One of the most difficult principles for the beginner to grasp is that of the ophthalmometer and yet it is one of the simplest which he must understand. In Chapter V the author certainly succeeds in giving a clear and concise outline of its action and value. Chapter VI is devoted to the cross cylinder.

The next two chapters, VII and VIII, deal with physical and psychological factors of vision testing, while Chapter IX discusses certain phases of cycloplegia. Chapter X takes up points in the problem of "Refraction after operation for Cataract." This chapter particularly, contains many valuable remarks.

The chapter headings of the remainder of the book illustrate the manner of development which the author adopts. Each one is full of real meat for the hungry refractionist seeking real mental pabulum.

Chapter XI. The Cycloplegic Correction.
Chapter XII. The Ametrope.
Chapter XIII. The Myope.
Chapter XIV. Astigmia.
Chapter XV. Refraction After Operation for Cataract.
Chapter XVI. The Post Cycloplegic Correction.
Chapter XVII. The Use of the Improved Test Chart and the Non-Cycloplegic Correction.
Chapter XVIII. The Anomalies of Accommodation and the Presbyopic Correction.
Chapter XIX. Refractional Changes Incident to Advancing Years.
Chapter XX. The Ophthalmic Lens.
Chapter XXI. The Bifocal Lens.
Chapter XXII. Muscular Imbalances and the Clinical Use of Prisms.
Chapter XXIII. The Mechanics of Visual Appliances.
Chapter XXIV. The Cosmetic Value of Glasses.

Perhaps the author will revise the arrangement of his material and expand his work in what we hope will be many future editions, and perhaps he will include more of his splendid illustrations, for it is felt that such good material as he can put forth should be more than an appetizer in quantity. The most and the least experienced will profit by a perusal of this little book, and it would do the internist and neurologist good to go through it also that they may better understand what sort of a problem a refraction case presents.

JOHN N. EVANS.

A TEXT-BOOK OF CLINICAL NEUROLOGY. By ISRAEL S. WECHSLER, M.D. Octavo of 725 pages, with 127 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.00.

We well might dare assert that the corner grocer or prosaic printer should be worthy the name of neurologist, if he peruse this excellent book. Of course we exaggerate a bit in our enthusiasm but Dr. Wechsler has indeed dealt with his subject from "Alpha to Omega" with such thoroughness that the most knowledge-thirsting, aspiring neurologist can here be sated. There is no complaint which can come to the attention of the practicing neurologist which is not portrayed in every detail; methods of examination, symptomotology, diagnoses and methods of treatments generously fill this valuable volume and render it highly commendable to the student of this vastly interesting and universally important subject. M. L. A.

NOUVEAU TRAITÉ DE MÉDECINE. Publié sous la direction de G.-H. ROGER, F. WIDAL and P.-J. TEISSIER. Fascicule IX. Affections du sang et des organes hématopoiétiques. Octavo of 802 pages, illustrated. Paris, Masson et Cie, 1927. Cloth, 80 Francs.

This volume is the ninth of a reference series on medicine consisting of twenty-two volumes. It is concerned with the affections of the blood and of the blood making organs; it is produced under the direction of G. H. Roger, Fernand Widal, and P. J. Teissier. The contributors are: Aubertin, Clerc, Kindberg, LeSourd, Mouguin, Pagniez, and Weil.

The pathology of the red cell is discussed by Aubertin, who has written much on anemias. The pathology of the white cell forms an article of 244 pages by Clerc. Hemorrhagic diseases are described by Weil, LeSourd, and Pagniez. The pathology of the spleen is discussed in an article of some 230 pages by Aubertin and Kindberg, which is stated by the publishers to be the first treatise on splenic pathology from the medical viewpoint. The printing and illustrations are clearer than in most French publications, although the binding is rather poor. In extenuation, it must be said again, that most French books are published unbound, the binding being supplied by the purchaser to conform with the rest of the books in his library.

W. H. D.

The Modern Practice of Pediatrics. By William Palmer Lucas, M.D. Octavo of 962 pages, illustrated. New York, The Macmillian Company, 1927. Cloth, $8.50.

The reviewer is impressed by the carrying out of the very first line of the Author's Preface, where he expresses his belief in the efforts to relate the study of the diseases of childhood to the positive aspects of health.

He realizes thoroughly and applies the fact that modern pediatrics more than any other line of ordinary practice is Health Conservation.

The directions in both general hygiene and diet and in the treatment of disease are very explicit and detailed. The illustrations are excellent and ample though not over abundant and the reviewer considers this an admirable addition to the works on Pediatrics.

W. D. L.

A Practical Treatise on Diseases of the Skin. For the Use of Students and Practitioners. By Oliver S. Ormsby, M.D. 3rd Edition, thoroughly revised. Octavo of 1,262 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $11.00.

This comprehensive book, in its third edition, has a number of excellent new illustrations, has been rewritten in part, bringing it as closely up to the minute as possible, particularly since about thirty new diseases have been incorporated within its pages. It is impossible to detail the review of a book of this character for one would have to read it to thoroughly appreciate that it is one of the really good texts on Dermatology.

The author's arrangement and his style make it an easy book to read and understand. The publishers have also done their work well except that it seems to the reviewer the paper is a little too highly glazed for comfortable night reading.

E. Almore Gauvain.

Health Record for Children. By J. Theron Hunter, M.D. Octavo of 52 pages. Baltimore, The Williams and Wilkins Company, 1927.

This volume is merely an accurate record of the health of the child, somewhat on the style of the baby books published by lay organizations, but in addition to the ordinary data contained in babies' record books, this takes up the appearance of the teeth, past history, illnesses of childhood, urine analysis, accidents, operations, specific diseases, and finally, protective measures with special reference to vaccination and toxin antitoxin injections against Diphtheria. There is no reading matter or text in the little volume, but as the author says, it makes it easy for the parent to maintain an accurate record of the health of the child, and also for the physician to treat each complaint of the patient more intelligently through a knowledge of what has happened in the previous life of the child. The book may be used by the physician also, as a record of his patients, being kept either at his office or in the homes of the patients.

Wm. Henry Donnelly.

The Elements of General Zoology. A Guide to the Study of Animal Biology, Correlating Function and Structure, with Notes on Practical Exercises. By William J. Dakin, D.Sc. Octavo of 496 pages, illustrated. London [and New York]. Oxford University Press, 1927. Cloth, $4.00.

This text is a general guide to the study of animal biology. The subject matter presented is very extensive, and along with the general information furnished on each subject, instructions are included so that a reader may obtain and study material, which will familiarize the reader with the subject under discussion. The range is extended from the minute members of the animal kingdom to the largest. No one engaged in the practice of medicine can remain uninterested in any subject, which offers a possible medium of discovering causative factors of disease. Already small and large members of the animal kingdom have their pathogenic representatives, and there is little doubt that further study in the field will be without avail. Anyone desirous of making a general survey of the field will find this book of importance.

J. Arthur Buchanan.

Physicians of the Mayo Clinic and Mayo Foundation. With Portraits. Octavo of 578 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.00.

This volume represents the Surgeons, Fellows, and members of the Mayo Clinic, including the fellows prior to January 1st, 1926, who have spent one year or more at the Clinic.

A brief biography, a portrait, and a list of scientific contributions of each one is given. Although this book has no particular scientific interest, it should be of interest to all those who have been connected officially, or unofficially with the Mayo Clinic.

It will also serve as a reference book for those whose names are contained therein.

Herbert T. Wikle.

The Practical Medicine Series. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Series 1926. Chicago, The Year Book Publishers, 1926. General Medicine. Edited by George H. Weaver, M.D., Lawrason Brown, M.D., Robert B. Preble, A.M., M.D., Ralph C. Brown, B.S., M.D. 12mo of 737 pages, illustrated. Cloth, $3.00. Price of the series of eight volumes, $15.00.

This volume contains a well-selected assortment of abstracts of representative articles published during the year 1926. It serves the useful purpose of keeping the physician informed of the advances in general medicine during the year.

Frederic Damrau.

The Normal Child and How to Keep It Normal in Mind and Morals. Suggestions for Parents, Teachers and Physicians; With a Consideration of the Influence of Psychoanalysis. By B. Sachs, M.D. Octavo of 111 pages. New York, Paul B. Hoeber, Inc., 1926. Cloth, $1.50.

This book is like the proverbial married man: It has a better half and a worse half. The opening sections are full of sound and commonsense statements, which should prove of great help to parents as a contrast to the highly fantastical literature on child culture so prevalent today. If Dr. Sachs had adhered to these tactics, his book would be deserving of unqualified endorsement.

But a lothing for candlesticks and phallic symbols and a personal resentment against the many biographies now written on the famous King Oedipus overcame the writer in the latter half of his book. Then Freud's "theories" were discussed in the heat of emotion rather than in the cold light of science. It would have been better not to discuss them at all.

Frederic Damrau.

OUR NEIGHBORS

THE ARKANSAS MEDICAL SOCIETY ANNUAL MEETING

The annual meeting of the Arkansas Medical Society was held on May 11-13, 1927, in Little Rock, and its proceedings were reported in the Journal of the Society for July. The attendance was 433 out of a total membership of 1,229. The address of the President, Dr. J. M. Lemons, before the House of Delegates was a model of brevity and directness, and its latter half was as follows:

"The county societies all over the State are waking up to the fact that their respective societies depend on hearty co-operation and it is a fact, if we get anything out of our county societies we must put something in each meeting. Who make up these county societies? You and I. Our county societies are improving in their programs, but let's make them better.

"The question has been asked—is the *Journal* of the Arkansas Medical Society worthwhile? Should it be discontinued, or should it be continued? Some physicians say, 'well, I never look at the *Journal*.' That may be true. Some say it is too small and others will say the *American Medical Association Journal* is too large. So it goes. A State Medical Society without its own Journal is like a ship without a rudder."

President Lemons also was brief and concise in his annual address before the Society, as is shown by the following extracts:

"Our Student Loan Fund is a step in the right direction to make able physicians in our State, and great honor is due to the men who have charge of this fund to assist worthy young men in completing their medical education. Let us help the committee all we can in handling the Student Loan Fund, to place it where it will do the greatest amount of good, and add to this fund from time to time as our finances permit.

"It has been suggested by some of our young graduates in medicine that our medical colleges should teach more about medical ethics. They say about all they hear while they are in college is how to avoid malpractice suits, but nothing is said about medical ethics. If the students had lectures on medical ethics when they go into general practice, they would not have to be arraigned before the County Medical Society for infractions. I am proud to say, however, that medical ethics is now being taught in our State Medical College by very able physicians, our President-Elect, Dr. H. Thibault, and the new dean, Dr. F. Vinsonhaler.

"The late ruling of the Nurses' Association is causing comment from a great many sources. The graduate nurse now only works twelve hours on a shift, let it be either day or night, and the Association refuses to let a nurse watch a convalescent patient through the day and night by having a cot placed in the sick room so that if the patient should need a little attention at night, she could be aroused and this attention given. The ruling of the Nurses' Association has caused quite a bit to be said about training practical nurses, that they may come in and do duty as has been done in the past in the convalescent stage of the patient. Read what Dr. H. A. Hare has to say in the *Illinois Medical Journal*, March, 1927. It is worth your time."

FLOOD SANITATION

The July issue of the *New Orleans Medical and Surgical Journal,* the organ of the Louisiana State Medical Society contains the following description of Flood Sanitation written by Dr. W. R. Redden, National Medical Officer of the American Red Cross.—Editorial Note.

"On April 28, 1927, the Red Cross National Medical Officer called the first flood health conference at Memphis to develop plans for the coordination of Red Cross medical and nursing services, the United States Public Health Service, the Army and Navy Medical Services, State Medical Societies and the American Medical Association with the services of the seven State Health Departments in the flood area.

"The first important result of the conference was the definite recognition of the several State Health Officers as the officials in complete charge of all health and sanitation within their respective states and as the officials directly responsible for all such work. The second important result was the establishment of a central

(*Continued on page* 870, *adv.* xvi)

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(*Continued from page* 868)

clearing house for all requests for personnel and materials and for all offers of service and materials. The conference voted unanimously to make the Red Cross Headquarters their clearing house, with Dr. W. R. Redden, National Medical Officcer, in charge."

Through these channels every State Health Officer has made known his needs, and not once in eight and one-half weeks has a single request been turned down.

The conference further recognized two definite phases in the emergency health and sanitation program; first, the refugee period during which thousands of people were suddenly driven out of their homes into camps and box cars, and second, or period of readjustment, measured from the time these people returned to their homes to the time when conditions of health and sanitation became comparable to those existing before the flood.

"Immediately plans were inaugurated to meet the needs of an effective program of health and sanitation. Already Surgeon General Cummings had assigned to the Red Cross Disaster Relief Headquarters as Liaison Officer one of the most outstanding Medical Officers of the Service, Senior Surgeon John McMullen, who took charge of the assignment of all personnel of the United States Public Health Service.

"The next step was to measure the number of health specialists and sanitarians and the amount of biologics there was available from State, County and Municipal Health Departments outside of the flood area. Within forty-eight hours, in response to telegrams sent to fourteen or fifteen State Health Departments we had listed seventy-five to eighty health officers, sanitarians, epidemiologists and chemists ready to give service with salaries paid by their respective states or counties, and expenses to be covered by the Red Cross."

Furthermore, it soon became evident that local county medical societies near or in the refugee camp communities had organized rotating visiting medical and dental services for the camp dispensaries and emergency hospitals. In addition to this, the health departments, assisted by the sanitary corps of the National Guards, established in each camp a sanitary service sufficient to guarantee safe water, safe milk, proper waste disposal, and clean food handling.

"The fact that during eight and one-half weeks there has not been a single outbreak of disease or a single epidemic of any kind in the camps, that even the ordinary illnesses among the refugees have been far less than among a similar group under ordinary conditions, is the finest tribute to the splendid work of the doctors, sanitarians and nurses in these camps.

"There is every indication that with the continuation of this work and the establishment of permanent local health measures the flooded areas may escape the ravages of the filth-borne diseases which invariably follow in the wake of floods."

The same issue of the Journal contains the following editorial description of the work of family doctors during the flood emergency:—

"The Flood and the Medical Profession: —Now that the flood is receding and there is time to think about what has been done during the past few weeks, we may safely say that the medical profession has on this occasion, as it has always done previously, met the situation. Whenever there is an emergency, it is always to the medical profession that the people go for help. In time of war or famine, pestilence or flood it is the old regulars who are appealed to for help. No matter how popular the various cults may be in time of peace, when there is any real trouble the regular medical profession is looked to and called upon.

"It is always the local physician who faces the real emergency. Often without adequate help and without sufficient supplies, it is he who must assuage the suffering and give first aid to the injured. It goes without saying that when the daily press states that the Red Cross is on the way and a train load of physicians and nurses is being sent, that the local doctors has already been on the job and has things well in hand by the time help—and much needed help it is true—reaches the 'front.'

"Recently Nicholas Murray Butler spoke of the doctor who cared mightily for every patient, who stopped at nothing, whose tenderness matched his skill, and whose devotion went parallel with his service. One more our hats are off to the home doctor."

HOW TO CONDUCT A STAFF MEETING OF A HOSPITAL

The July issue of *California and Western Medicine,* the official organ of the Medical Associations of the states of California, Nevada and Utah, contains an editorial description on the plan of the staff meetings of an unnamed hospital. This plan is here reproduced for the benefit of New York physicians who are confronted with the problem of making the staff meetings practical and useful.—Editor's Note.

(*Continued on page 872—ad. xviii*)

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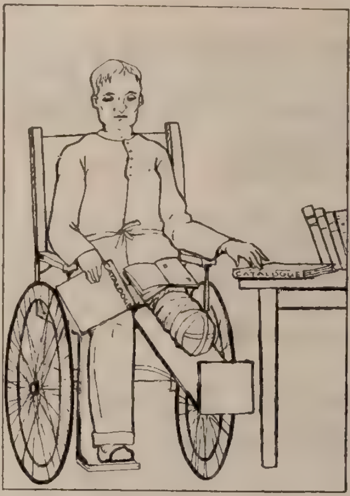

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(*Continued from page* 871)

"In one of the hospitals with which the writer is connected a staff organization and meeting procedure has been worked out in the last several years that fulfills, we believe, the real purpose of a hospital staff organization, and this without infringing on the pre-existing or proper domains of other medical organizations.

"In this hospital of over three hundred beds there is not an overplus of staff meetings, there being only one such session per month. Provision is made for extra meetings, but these are rarely called.

"There are three to five presentations of history records of patients who have been under care at the institution. The history records selected by the program committee, after conference with the chart reading committee, are of that kind, wherein matters of diagnosis, treatment or pathology especially come into question; or which, for this, that, or the other season should be of particular interest or value to the staff members.

"The presentation of the history record is kept as impersonal as possible. This impersonal element is very important. The clinical history, with case number, but not the patient's name mentioned, is compiled and read by one of the interns, who writes up the same from the history sheets. The name of the attending physician or surgeon is not known or mentioned, and the members of the staff do not know whose patient is under discussion unless the attending physician or surgeon chooses on his own account, before the discussion closes, to make a statement that acquaints the staff members with that fact. This presentation by an intern gives very good training to each house physician; means as a rule a presentation that is more pointed and more unbiased than if the attending man was making it; and the system whereby the name of the attending man is not known permits the later discussion to proceed freely, and without engendering misunderstandings.

"The program committee deputizes three members of the staff to open the discussion. Each of these, when he is notified that he is down for a discussion, is given a copy of the synopsis that has been previously prepared by the intern, and is told what particular phase of the general subject having to do with the disease under consideration, or any particular phase of the patient's clinical record, is to be discussed by him. Thus this plan provides that the discussion is opened by three staff

(*Continued on page* 874—*adv.* xx)

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(*Continued from page* 872)

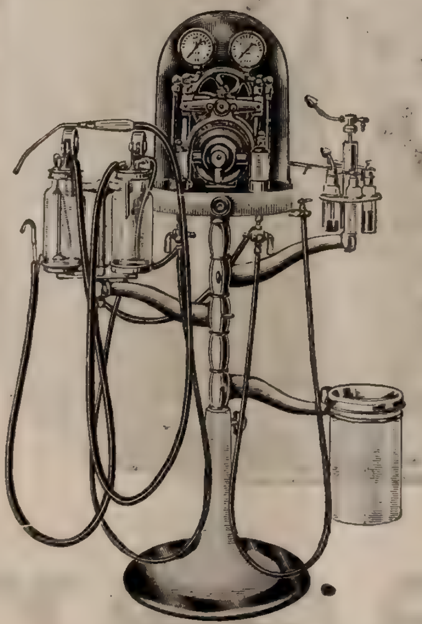
members who are given specified topics, so that there is a minimum of overlapping; each of these discussors having had an opportunity to consider the complete history of the patient as compiled, and be in a position to give a more logical and pointed expression of viewpoint, than would be the case in a haphazard general discussion without previous thought on the subject.

"After the presentation of the viewpoints of the three discussors, the subject is thrown open for general discussion.

"The plan above outlined is a simple one. It may be said for it, also, that it works out well in practice. It makes for a thorough analysis of interesting case histories, and lays the foundation for keen and discriminating discussions on scientific topics and experiences that are of pertinent interest to physicians bound together in a staff organization.

"These meetings start promptly at 8 o'clock, and at attempt is made to close them promptly at 10 o'clock. At the end of the scientific presentations, the superintendent of the hospital is usually called on for remarks and for questions. The minutes of the scientific meetings aim to be concise, and yet comprehensive enough to cover the major points brought out in discussion, and are read at the beginning of each meeting.

"Not the least of the features in this particular staff organization is an informal luncheon, which is paid for from the staff treasury, but which is provided by the hospital authorities, and which follows immediately in informal buffet fashion at the close of the meeting. In this particular hospital staff the members follow their two hours of scientific feast with edibles and fluids that refresh the physical body, and the meeting room becomes a buzz of pleasant discussion, laughter and exchange of fraternal greetings for thirty or more minutes."



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HAHNEMANN AND HOMEOPATHY

The story of Homeopathy can be told now in a far more judicial manner than it could have been narrated at its height about 1890, when there were about 14,-)00 homeopathic physicians in the United States. The following notes on its founder Samuel Hahnemann, are taken from the June issue of the Nebraska State Medical Journal.

"Samuel Hahnemann was born n April, 1755, at Meissen, near)resden, the capital of Saxony. His father was a painter of Dresden china and expected his son o follow in his footsteps. The on, however, displayed a love f letters. At the age of 20, with wenty crowns as his fortune, he vent to Leipsic to study medi-ine. He maintained himself by ranslating works out of the atin, French and English into erman. He received his medi-al degree at Erlangen in 1779. ater he pursued his studies at ienna.

"He settled at Dresden in 1784 nd became director of a large ospital. Here he discovered a ew soluble salt of mercury and ublished a monograph on ar-enical poisoning. After four ears he returned to Leipsic. Iere he translated Cullen's Ma-eria Medica from the English. Vhile experimenting with cin-hona bark he took a large dose hich was followed by a chill d from this he conceived the ea of *similia similibus curan-r.* While carrying similar ex-eriments with veratrum album e gave a strong dose to relieve severe colic and noted that be-re relief came the symptoms ere much aggravated. This led m to the theory of trituration, namization and infinitessimal sage, reasoning that the aller, subdivided dose would fect a cure without unpleasant mptoms. His Organon of edicine was published in 1810. en followed his Materia Med-. His system involved the ministration of medicine, each parately, by itself. This interfered with the business of the apothecaries since there were no prescriptions to be compounded, so they had a law enacted forbidding physicians to dispense their own medicines. In consequence Hahnemann was obliged to leave Leipsic. The Duke of Anhalt-Koethen offered him a refuge and appointed him court physician on his removal to Koethen.

"Having lost his first wife, in 1835 he married a French woman and moved to Paris where he enjoyed a great reputation until his death in 1843.

"Hahnemann was universally acknowledged to have displayed remarkable courage, perseverance and genius. He was a man of unblemished purity of morals; and his life, as well as his writings, was characterized by strong natural piety.

"Homeopathy spread over Europe, Asia and North and South America during the first half of the 19th Century. The first Homeopathic medical college in the United States was established at Allentown, Pa., in 1835. Later Homeopathic colleges were established in all the larger cities and a number of state universities established Homeopathic medical departments.

By 1890 there were about 14,000 Homeopathic physicians in the United States. Soon after this period, with the general acceptance of the germ theory of disease, the development of laboratory methods and the era of rational medicine, Homeopathy began to decline and many members of the so-called school accepted the olive branch held out by organized regular medicine and allied themselves with the regular organizations. Today but two of the so-called Homeopathic medical colleges remain in the United States and they are teaching regular medicine. The Hahnemann college of Philadelphia is, and always has been, a Class A school, and is recognized by every examining board in the United States.

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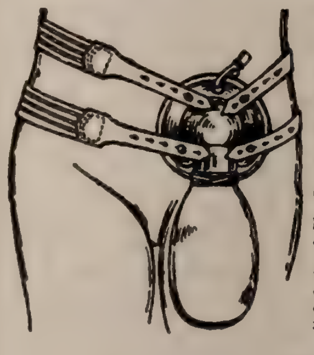

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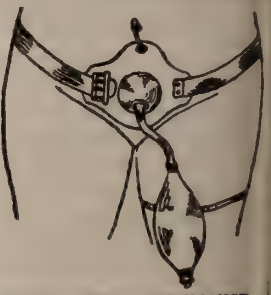

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THE SYSTEMIC TREATMENT OF SKIN DISEASES

AN APPRAISAL OF SOME RECENT ADVANCES IN THIS FIELD, WITH A STUDY OF THEIR RATIONALE*

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THE use of external or of systemic treatment in various diseases of the skin, is dependent on the cause and nature of the pathological process in the skin on the one hand and the general condition of the patient on the other. The pomade for scabies and the potion for syphilis, to paraphrase Darier, expresses the relative value of each kind of therapy in cutaneous diseases of definite pathogenesis. Where the causes of certain dermatoses remain obscure, the valuation of local or systemic treatment is just as exact as the premises on which it is based.

Following the development of dermatology under Hebra and his pupils, progress in external therapy forged ahead of the systemic treatment, because attention was mainly concentrated on learning to "read the skin." Of late, blood chemistry studies together with the advances in immunotherapy, chemotherapy, endocrinotherapy and the role attributed to the vegetative nervous system in regulating cellular activity, influenced many dermatologists to employ measures more from the standpoint of the "internist," especially so in those dermatoses where the local therapy seemed to be inadequate.

Although such studies and the systemic treatment based on them, are still in the process of development, it may be of interest to evaluate such contributions to the therapy of skin diseases, together with the rationale on which they are founded. It will be necessary however, in order to avoid too lengthy a treatise, to limit it to just those systemic measures that are of special interest because of the results obtained, or an account of the hopes they have aroused.

Even with effective systemic treatment, it must be remembered that local therapy ought not to be neglected, if local symptoms require it or special circumstances demand it. Some contraindication may exist forbidding the use of an internal measure.

The subject matter is arranged under individual diseases of the skin and those considered as related. Syphilis is not discussed. A few dermatoses like acne, the seborrhoeides and pruritus as well as some of the less common ones, are perforce omitted or mentioned only casually, unless some particular advance in their systemic treatment required it otherwise.

TOXIC DERMATOSES

Except where they can be proven as due to foods (gastro-intestinal) or drugs, the etiology of the different types especially the erythema group, remains as a rule vague. No details are necessary as to restriction of diet and eliminative measures, when the toxic eruption is due to foods; but a few words on the erratic behavior of idiosyncrasy in connection with drug eruptions, are appropriate, on account of its prophylactic value.

A drug may vary in its effects on the skin at different times in the same and different persons. Not only the erythema group but other types of eruptions, are also encountered. An early and sometimes a delayed rash occurs, or the eruption may fail to appear at certain times—the negative phase. The ill effects are sometimes known to absent themselves when the type of preparation is changed, as with iodine and arsenic.

In specific instances like mental and cutaneous bromism, Wile (1) induces an increased bromide excretion by intravenous saline infusions, in order to combat bromide intoxication. He thus reverses the phenomenon of the displacement of the tissue chlorides, following bromide medication. He uses normal and decinormal saline solution and gives it intravenously in amounts varying from 100 to 400 cc., at intervals of three or four days. After a few doses, a prompt improvement is noted in all skin lesions and other symptoms. The good effects of this treatment are confirmed by others and thus warrants its further employment in this obstinate dermatosis.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

The only contraindication to the use of this measure, is a co-existent nephritis in the patient.

In bromide acne, an increase in the amount of table-salt added to the diet, may be sufficient to cause such lesions to disappear rapidly. It is possible that those patients with a low chloride component are more susceptible to bromides and the same thought applies to those with a low blood calcium content. For this last reason calcium therapy may be also of value in bromism.

McBride and Dennie (2) utilizing Ravaut's treatment of arsenical dermatoses with sodium thiosulphate, advocate this method not only in arsenic, but in mercury and lead poisonings as well. In the case of arsenical dermatoses, the beneficial effects of the sodium thiosulphate administration are based on various theories, but the increased elimination of the arsenic that ensues, pari passu with the local and general symptomatic improvement, points to its practical remedial value. Like adrenalin and atropine, the prior and subsequent use of thiosulphate is also capable of preventing, at times, the skin lesions and other symptoms due to the arsenicals. Preparations of calcium, glucose (alone or as a vehicle for the arsphenamines) and thiosinamine are being used with similar detoxifying effects. A test for susceptibility to drugs in general is available either by giving a minute dose by mouth, or if an arsenical, by the percutaneous route. The thiosulphate is also an efficient remedy in stomatitis due to mercury and bismuth, but of questionable benefit when used in mercurial poisoning or plumbism.

The sodium thiosulphate should be chemically pure and freshly prepared before use, as a 10 per cent. solution in sterile distilled water. It is given intravenously in doses of 0.5 to 1.0 Gram, daily or every other day, for as many injections as are necessary. It is usually well tolerated, although frequent urination and bowel movements are occasionally complained of, especially when the drug is given by mouth. I have seen a toxic erythema develop after the oral administration of this drug and Frazier (3) reports two cases that developed a purpuric vesiculo-bullous dermatitis, subsequent to the intravenous use of thiosulphate.

Where the cause responsible for the toxic dermatosis is obscure, empiric treatment along the usual lines, is the only recourse.

URTICARIAS

Aside from the urticarial wheals of factitious origin, urticaria and urticarial erythema sometimes appear after eating various foods, even though partaken of previously without any ill effects. On the other hand these foods and also substances of a foreign nature, may be the cause of regular relapses—anaphylaxis. If positive cutaneous tests are obtained, desensitization or removal of the cause proves valuable, especially where foreign proteins like silk, cotton, feathers, pollens, serums, etc., are found to be the disturbing factors. Relapses of long standing may be finally conquered by these means, especially in those associated with asthma.

Duke (4) has shown that light, heat, cold and other physical agents are to be contended with, as they are capable of producing eruptions of the urticarial group. So can emotional distress, endocrine dysfunction, foci of infection and infestation or parasites, produce similar lesions. Treatment in these instances, directed to the proper channel, usually brings relief.

A trying situation exists where the incriminating cause, especially of the relapsing type of the urticaria, is difficult to detect. Pulay (5) in his studies, notes in such cases an increase of the uric acid content of the blood, often accompanied by a varying degree of hypercholesterinemia. The calcium component, he finds inconstant. Pulay considers that measures directed to reduce the uric acid in the blood are of prime importance in the treatment of urticaria of this type, and he therefore recommends a purin free diet, with the administration of cinchophen or its derivatives, and large doses of sodium bicarbonate. The sedative action of antipyrine and pantopon is also of benefit. In those showing a vagotonia, atropine is valuable. Adrenalin is only of temporary benefit. Where the calcium content is low, large doses of calcium carbonate are helpful.

Ichthyol internally, especially for the papulovesicular urticarias of infants and children (strophulus), has some advocates, although the rationale of its action is disputed. The elimination of lactalbumin in the diet is also of help in such cases.

The chronic papular urticarias and prurigos, although histo-pathologically lesions of the exudative type, are from a clinical standpoint more related to the urticarial group. Pulay's blood chemistry findings in the prurigos are about the same as in other types of urticaria and he therefore advises therapy of a similar nature. Desensitization as outlined in urticaria is also of value here, especially in Besnier's prurigo.

The administration of yeasts, fermented milks and colonic irrigations, mostly on the basis of combating the intestinal flora, are recommended for urticarias and other dermatoses suspected to be due to autointoxication and intestinal putrefaction. In the prurigos, the results are disappointing. In chronic urticaria as well as other dermatoses like pruritus and eczema, some benefit is noted with these forms of treatment, although not often enough to establish them as therapeutic measures of importance. Whole-blood and autoserum injections have proven much more effective in such dermatoses.

ECZEMA, DERMATITIS OR ECZEMATOUS DERMATITIS

Pusey and others are convinced that eczema, dermatitis etc., are histologically and clinically identical. On account of its general utility, the term eczema will be used here, recognizing that the word creates in the mind of some dermatologists of note, an image quite distinct from a dermatitis.

According to Highman (6) eczema is neither an external nor an internal disease, but due to precipitating causes acting on a prepared skin. For practical purposes, however, the cure of eczema resolves itself into a diligent search for the external causes first and failing in this, for the internal causes. The rationale of such a procedure has its origin in the successful studies that uncovered many eczemas formerly considered of obscure internal origin, to be either a dermatomycosis, an occupational skin affection or a dermatitis of an anaphylactic nature. Knowles (7) from his studies arrives at the conclusion that in a large proportion of eczemas, some external cause will be found responsible and a cure result after the removal of the noxious substance. He further agrees with Hall, that numerous cases of infantile eczema are also exclusively of external origin.

Extreme adherence to externalism in eczema, that Hebra once sought, is not readvocated. It is recommended that priority be given to an examination for external causes and only exclude them after diligent and judicious investigation. A few significant case reports may serve to illustrate:

I presented before the Brooklyn Dermatological Society (8) an elderly lady, Mrs. L. B., who had a severe and generalized eczema simulating an exfoliating dermatitis. She had been under treatment on three different occasions at various hospitals. While under my supervision, the rash cleared up entirely under roentgen-ray therapy and arsenic injections, only to reappear as soon as the treatment was discontinued. Just about this time, it was discovered that she was using some kind of an insect powder in her apartment and when questioned as to any ill effects when employing it, was certain it made her sneeze and cough. Further investigation showed that the insecticide was pyrethrum powder. She used this quite liberally as her husband was in the business. Her skin was positive to pyrethrum and several relapses since, were traced to this powder still in various parts of her rooms. Her husband also discontinued handling this product.

A nurse was subject to repeated attacks of eczema until finally she had to be hospitalized for a severe and generalized outbreak. If she handled or was anywhere near lysol, she would promptly show effects on her skin. Another patient with an acute erythematous eczema of the face and neck, was isolated for a supposed attack of erysipelas. This lady was washing her face in a weak lysol solution, as someone told her it was "good for the skin."

A man, 54 years old, had a fissured eczema of the tips of the fingers for about two years, and a tinea of the groin of unknown duration. The latter healed soon enough but the finger lesions remained about the same. I finally discovered that he was carrying some loose chewing tobacco in his pockets. As soon as he emptied them of the tobacco, the lesions responded to the same local treatment previously ineffective.

A 14 months old boy with an infantile eczema of the face and body, was treated by me ten years ago with local remedies. I saw him again about six months ago, with a weeping and pustular eruption on the chin, right hand and forearm. His physician informed me that one year ago, on account of the continual recurrences since an infant, he had the boy's skin tested and found it to be positive to silk. The present attack and others of a similar nature, were definitely noticed since then by the boy's mother, to follow contact with silk draperies, ties, mufflers etc.

These are only a few of the more striking experiences encountered and just skim the surface of the numerous other external pathogenic factors that may act as irritants. Skin tests, and carefully planned questioning regarding details of occupation, as well as to contact with cosmetics, drugs, chemicals, dyes, plants, prints, shellac, hairs, feathers, silk, cotton and wool, soaps and other things thought to be harmless, are of considerable practical importance from a curative standpoint. According to Pollitzer, exogenous bacterial action is also culpable and should be eliminated by suitable local measures.

Eczematized ringworm is well recognized now and is usually amenable to local treatment. Psoriasis and other dermatoses when located in certain areas, closely simulate eczematized tinea and are no doubt often treated as such. Definite cases of tinea, resistant to local measures, may be benefited if some form of systemic therapy, as discussed in endogenous eczema, is added to counteract any abnormal factors at play. If reinfection is to be avoided, all possible avenues of contact must be guarded against.

A consideration of the external causes of eczema is therefore essential for their proper investigation. Their detection and removal is an important part of the treatment, if a permanent cure is to be attained. Local measures in such cases are only palliative.

It is evident however, that even here a local and general predisposition exists, for not all coming in contact with external irritants, are susceptible. When such substances are of a protein nature, desensitization is sometimes tried, especially where the external cause is difficult or impracticable to remove. Other non-protein substances may also be effective prophylactic and curative agents. At least that seems to be the case with the antigen advocated by Albert Strickler in ivy poisoning.

Aside from the predisposition necessary in eczema due directly to external irritants, precipitating causes of an internal nature, may be responsible for the inflammatory skin lesions. This is the socalled true or endogenous eczema.

Clinical observation indicates that various internal disturbances are often associated directly or indirectly with definite skin lesions. In the pruritus of icterus, the pigmentation of Addison's disease and the myxoedema of hypothyroidism, we have a few examples of a direct connection of internal disturbances with skin lesions. In diabetes, eczema and other skin lesions commonly appear and seem to require the help of an antidiabetic regime and often of insulin. Eczema and nephritis are likewise associated. The gouty and uric acid diathesis (arthritism) and the exudative diathesis (calcium deficiency?) similarly, direct the attention of the associated skin lesions, to faulty metabolism and inefficient excretion. Focal infection and endocrine disturbances are also said to be culpable factors.

Recently some animal experiments and studies of blood chemistry, further indicate some abnormalities associated with eczema and other dermatoses. Although the deductions from these experiments do not admit of final interpretation, the treatment based on them, seems to denote progress.

Luithlen (9) increased the reactibility of the skin of rabbits, by oat feeding and acid diets. The skin returned to normal in its response to irritants, by feeding the rabbits on calcium chloride and greens. Luithlen concluded from these and still other experiments of his, that together with a change in metabolism, there was also a change in the chemistry of the skin, which resulted in its altered reaction and thus explained the etiology of eczema. Klauder and Brown (10) confirm most of Luithlen's findings but do not agree with his conclusions. On the contrary they find that cutaneous sensitivity cannot be correlated alone with blood chemistry studies, particularly the calcium content of the blood, but the problem is still more complicated in nature. Pulay in his studies notes the presence of a hyperuricemia and often a cholesterinemia, hydremia (weeping eczema) and hyperglycemia. Schamberg and Brown (11) report excessive uric acid values in this disease, also in pruritus and occasionally in certain other dermatoses. Ayers (12) pursuing the studies of the late Dr. I. L. McGlasson on carbohydrate metabolism in eczemas and other dermatoses, discovered that one-fourth of the number with eczemas, show a low glucose tolerance test, with definite clinical improvement in many such cases following a reduction of the carbohydrate intake.

Michael (13) on the other hand, in testing 120 persons with uric acid, urea and creatinin, finds that they are not dermal irritants. From his study, the blood estimation of uric acid in eczema and kindred disorders is of doubtful value. Michael and Nicholas further show that the intravenous injections of lithium urate solutions do not aggravate eczematous lesions. This evidence is of practical clinical importance as some eczemas are associated with gout and a hyperuricemia. In such cases a purin-free diet with cinchophen or its derivatives is suggested. While there may be some general benefit in doing this and as Schamberg reports, even beneficial effects on the skin lesions, final conclusions as to its efficacy await further studies.

Throne et al (14) recently report that in all cases of eczemas there is a marked increase in the sugar content in the blood stream as well as a high chloride content and that arsenic intoxication acquired mostly through industrial contact and occasionally through foods, medication etc., is the actual cause in a large percentage of patients applying for treatment for this skin disease. They treat such patients with a carbohydrate, nearly salt-free diet and in the arsenic cases with injections of sodium thiosulphate. Their results while promising, await further arsenic determinations in other skin diseases and in normal cases, before and after the use of thiosulphate, and without it.

The effects of calcium therapy in eczema and other exudative lesions, is explained by Luithlen, in that it reduces the irritability of the skin in various ways, either by the increased coagulability of the blood, diminished vascular permeability, or diminished irritability of the vegetative nervous system. According to Luithlen, the parenteral administration of colloidal substances can also reduce cutaneous irritability, by bringing about a change in the colloids in the body. Whole blood, autoserum, serums, vaccines, milk injections and blood letting, as well as sodium nucleinate and sodium silicate, are capable of causing such alterations and are hence worthy of trial in eczemas. Pulay attributes the action of colloidal therapy to cholesterin effects and to changes in the viscosity of the blood. Stejskall reasons that the injection of glucose is beneficial, because it influences the direction of the watery component in the dermal tissues (osmotherapy). There are other theories as to the action of these remedies, especially the non-specific activation of the cells caused by foreign protein therapy. These measures are useful additions to our armamentarium in reducing skin irritability in eczema, even though agreement as to their rationale, is not fully established.

Antipyrin, Pyramidon, and Luminal have a favorable effect on eczema on account of their sedative action on the nervous system. Bromides have also a beneficial effect, when given by mouth, but since A. J. Lebedjew showed the intravenous method to be more effective in eczemas and other dermatoses its use has become still more popular, partly because the itching is quite promptly relieved. There are other reasons advanced, but this in itself is of considerable aid in restoring the skin to normal. The internal administration of sulphur and ichthyol preparations in adult and infantile eczemas, has some advocates, who base the beneficial action on the contraction of the vessels of the skin, caused by the sulphur excreted in the dermal tissues. The rationale however, of the external as well as the internal use of ichthyol preparations, is called into question, for it is shown to rest on very insecure grounds. (15) When iodides are advocated in chronic eczema, it is because of its action on the thyroid gland and the desired increase in metabolism that ensues.

The use of arsenic is of great benefit in many cases of chronic eczema otherwise resistant to other forms of treatment. This drug, frequently prescribed in this dermatosis and also in psoriasis, lichen planus, dermatitis herpetiformis, pemphigus, tuberculides, Kaposi's sarcoma, mycosis fungoides etc., is often administered in a haphazard manner without due regard to indications and the kind of arsenic advisable.

In syphilis, Vincent's disease and other spirochetal infections, a chemotherapeutic action in the true sense of Ehrlich, is desired and the arsphenamines are therefore indicated. Perhaps in lichen planus some such action also takes place, for the arsphenamines are capable of producing cures just as Enesol (Mercury salicylarsenate) and other forms of arsenic will do, excepting with more rapidity. In the tuberculides, the arsphenamines are favored because of their indirect stimulation of the defensive forces of the body and possibly, antibacterial action. In eczema and psoriasis where most of the pathology is located in the epidermis and corium, other forms of arsenic are just as available and in fact less dangerous. The administration of Fowler's solution, Donovan's solution and Asiatic pills, quite useful at times, is often poorly tolerated or abused by the patient and besides is not so adapted to the use of graded and larger dosages that is occasionally necessary. It is for these reasons that the subcutaneous or intramuscular use is found to be more applicable. As arsenic by injection is painful and in certain forms quite toxic, it is advisable to choose only those preparations in which such ill effects are missing, their efficiency remaining intact. Sodium arsenate, cacodylate and Solarson (a 1 per cent isotonic solution of ammonium heptenchlorarsonate), meet these requirements, the last being the least painful and without the garlic-like smell often noticed when the others are used.

The following formula of sodium arsenate is one in use where a rapidly increasing dosage of arsenic is contemplated:

	gm. or c.c.
Rx Sodii Arsenas	
	—
Phenol	aa 1
Aq. Dest. et Steril......	50

An injection is given every day, beginning with five drops and advancing by two or three drops daily until 20 to 30 drops is reached. This is maintained for about ten to twelve days, unless signs of intoxication appear before this. If not, the dose is slowly diminished to five drops and a rest period of three or four weeks ordered. While the dosage is at its peak, the patient may show some fever and albuminuria and feel quite shaken up. This so-called arsenical shock therapy is not without its beneficial effects, as is evidenced in the following case:

A young man with a severe generalized neurodermatitis that resisted for three years all kinds of treatment, including other arsenicals and the roentgen-ray, submitted to the discomfort of one course of rapidly increasing doses of sodium arsenate injections and was rewarded after three months by a complete cure. During this time he received only the mildest superficial roentgen-ray treatment and a local antipruritic lotion.

The dietary regime for skin diseases in general and eczemas in particular is based nowadays on the effect of diet on skin reactivity to light and other irritants. Various foods, for instance, poor in certain vitamines, produced among other things, pellagroid skin affections. It is known that certain metabolic products like sugar, lactic acid, urea and others are photodynamic.

Based on his rabbit feeding experiments, Luithlen recommends for an acute eczema, a vegetable diet poor in oxalates.* He also allows beef, well boiled, to remove part of the extractives, adding very little salt. The mineral salts of the vegetables, especially the calcium, with the alkaline and saline laxatives also ordered, reduce the irritability of the skin and so aid it to return to normal. I have made use of this diet in eczemas and think it is of benefit, but the lack of proper control of such measures and of the patients using them, makes it difficult to draw definite conclusions. The same applies to the purin and carbohydrate-free diets. It is also as difficult to appraise the results obtained in this disease from the use of fermented milks, yeasts and colonic irrigations.

In addition to the measures above cited, some patients with chronic eczema of extensive distribution and marked lichenification require rest in bed and even psychotherapy. A change of surroundings or a different climate may also accomplish a cure. Whatever the reason for this beneficial action may be, the clinical results cannot be denied.

In the endogenous eczemas of infants and young children, the restriction of salt in food is recommended by Finkelstein, while others favor reducing the protein intake, or the fats, or the carbohydrates. The results are not easy to judge, especially as the local remedies are occasionally beneficial in themselves. Where definite protein sensitization exists and asthma develops, eczema and other lesions may yield to desensitization.

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* Tea, coffee, spinach, rhubarb, sorrel and pepper have relatively large amounts of oxalic acid. Hutchinson, Robert: Food and Dietetics, New York, William Wood & Co., 1908, p. 294.

In closing the topic of the treatment of eczemas, it will be seen that therapy is usually simple enough provided the external cause is determined and the predisposition altered. Failure to detect the external cause, places such eczemas in the true or endogenous group, although no positive assurance can be had that some possible external cause defying discovery, is still the exciting factor. Even an eczema associated with hyperglycemia, diabetes, nephritis, hyperuricemia or thyroid disturbance, must yield more than once in the same patient to the treatment of the systemic disorder, before it can be classed as definitely endogenous. For reasons that are patent, the term endogenous as applied to eczema is in many instances therefore misleading. The rationale of the treatment of eczema, including infantile eczema, may be interpreted from modern clinical and experimental evidence, as based on direct exciting causes usually of external origin, that require removal; less often and as difficult to demonstrate, of internal origin, that need correction; acting on a skin whose hypersensitiveness must also be remedied because its cellular activity, vascular tonus and regulating mechanism are no longer adjusted to maintain a normal response.

Scleroderma

Some progress has been made in the treatment of this disease. In the severe cases involving the extremities and also in Raynaud's disease, periarterial sympathectomy is reported as occasionally beneficial. In the ordinary cases, the prolonged use of thyroid extract, often helps, especially where an evident atrophy or degeneration of the thyroid gland exists.

Ayers (16) reported a few cases of scleroderma that seemed to be due to arsenical intoxication. I have seen two such instances, with improvement under sodium thiosulphate therapy. Greenbaum (17) demonstrated that thiosinamine (allyl sulphocarbamide), like sodium thiosulphate, acted as an efficient detoxifying agent in arsenical dermatoses, and it may be that the good results occasionally secured by injections of thiosinamine in scleroderma, is not alone due to its resolvent action on fibrous tissue but also to its detoxifying action in cases probably due to arsenic.

Dermatitis Herpetiformis

Duhring's disease is very recalcitrant to any kind of treatment. Injections of autoserum, autohemoserum, glucose and some form of arsenic, are in common use today, in addition to the local therapy. I have aborted two sharp relapses in a patient, with biweekly intravenous injections of 10 cc. autoserum with an equal amount of Ekzebrol (a 10 per cent sterile solution of strontium bromide in normal saline). This patient was subject to the disease for eight years and had received in the way of treatment almost everything recommended for this disease, even circumcision, but never obtained as quick relief as with the bromide and serum injections. The basis for this treatment was already discussed under eczema.

Pemphigus

Although the etiology of this disease is still undecided, the different remedies suggested are mostly based on a possible infectious or neuropathic origin. Kartamischew (18) has called attention to a sodium chloride retention and eosinophilia. He especially noted this in early cases that start with mouth lesions, and attached both diagnostic and prognostic value to these findings.

Davis and Davis (19) reported cures in a small number of cases of pemphigus after the clinical trial of their intravenous iron cacodylate and subcutaneous coagulen injections. The late Dr. Grover W. Wende, employing their methods, also reported favorable results. Unfortunately the reports from other parts of the country have not been so good. Sustained and heroic doses of arsenic (Solarson), have cured two cases of pemphigus vulgaris under the care of Dr. Fred Wise. Others have had promising results with intravenous injections of quinine and sodium bicarbonate solutions and various dyes and the subcutaneous injections of various proteins, vasoconstrictants and vaccines. As Wise (20) suggests, the effects of treatment are probably dependent on the type of pemphigus. The acute, septic, bullous type being invariably fatal; the others, subacute, showing remissions and relapses, with bullae, vegetations or folliaceous scaling. Although the latter may occasionally be benefited, they ultimately succumb to the devastating effects of the disease.

Rosacea

The internal administration of dilute hydrochloric acid, has in my hands been of great help in alleviation and prevention of relapses, of this disease, in addition, of course, to the other recognized procedures. This internal therapy seems to correct the hypo or achlorhydria that Ryle and Barber (21) finds to be quite common in such patients.

Psoriasis

Although nothing definite has been accomplished in the prevention of relapses or hastening the disappearance of the lesions, no reason exists for the impression now prevalent among psoriasis patients, that they must go around decorated with the silvery scales. Each new outbreak should receive attention to prevent chronicity. Autoserum when combined with local treatment seems to be efficacious in my hands. Thyroid and thymus extract, entero-bacterins and various drugs are from time to time hailed with enthusiasm, but the results, even with the roentgen-ray treatment of the thymus, are difficult to valuate.

In chronic cases various preparations of arsenic are recommended. According to Jadassohn it is an efficient remedy, especially in the particularly obstinate variety located on the palms and soles. The sequelae that are apt to follow in some sooner than others, if taken over any length of time, must carefully be guarded against. On account of the severe and occasionally fatal reactions that may occur with the arsphenamines, their use in this disease, it seems to me, is unwarranted.

The approach to a rational therapy of psoriasis, from a systemic standpoint, is beset with many difficulties in the form of observations claimed as significant, by various observers. There are many instances of the disease in families, especially where gout or diabetes is prevalent. Various blood chemistry findings and endocrine disturbances are reported, also a parakeratotic diathesis, etc., but these findings, just as the absence of psoriasis in the full-blooded negro or its rarity in inhabitants of the tropics, are of little therapeutic help.

Parapsoriasis

This group of diseases under which different types are classified, is not so uncommon, judging from the number of cases presented at the various dermatological societies. Reported cures are, however, rare. Any measure thus far employed in this disease, rests mostly on empirical grounds and for that reason and also its unknown etiology, is difficult to appraise. Of the many systemic measures suggested, the hypodermic injection of pilocarpine to the limits of tolerance, is perhaps the best at hand, alone or combined with the ultra violet ray. Fred Wise some years ago cured one patient with the ultraviolet ray and recently informed me of another that he cured with pilocarpine injections. In one patient treated with pilocarpine rather persistently, I saw no improvement.

Lupus Erythematosus

The results so far achieved with gold therapy in this obstinate dermatosis, are so gratifying, that it promises to be the most important advance made in recent years, in the systemic treatment of skin diseases.

First employed many years ago in the treatment of systemic tuberculosis, Koch soon after his discovery of the tubercle bacillus, showed the inhibitory effect of gold on the organism in vitro. The development and trial of gold compounds continued until 1917, when Feldt introduced Krysolgan a 4-amino-2-aurothiophenol carbonic acid. This and other gold compounds are being considerably used now in lupus erythematosus, on the assumption that the disease is of tuberculous origin.

Schamberg and Wright (22) after a preliminary trial with colloidal gold chloride, utilized for the first time in lupus erythematosus, the preparation championed by Mollgard for systemic tuberculosis. This gold compound originally prepared by Fordos and Gelis in 1845 for the toning of daguerreotypes, is known as Sanocrysin, a sodium aurothiosulphate. It seems to be quite adaptable for intravenous use and in proper dosage, comparatively free of reactions. An actual cure or marked improvement in the lesions is reported by Schamberg and Wright, in nearly one-half of the twenty-five patients with lupus erythematosus, treated with this preparation of gold.

There are no definite rules as to dosage, frequency or duration of treatment with the various gold compounds as yet, but Schamberg advises in using the gold thiosulphate, to start with 25 to 50 milligrams dissolved in 2 cc. of sterile distilled water and increase the dose gradually every five to seven days until 100 milligrams are given. Although a safe compound to use, general and muco-cutaneous reactions may occur. A cautious dosage is advised in disseminated lupus erythematosus. Martenstein and others report good clinical reports with Krysolgan, Galewsky uses Triphal, while another compound called Aurophos also receives favorable mention. Several patients with lupus erythematosus of long standing have now been presented before the various dermatological societies in New York City, who have been treated with different gold compounds, and the results in most of the cases have been remarkably good.

Gold therapy is only occasionally beneficial in lupus vulgaris and other forms of skin tuberculosis and tuberculides. Dr. Schamberg kindly furnished me the sodium aurothiosulphate for trial in a particularly severe case of lupus vulgaris of the face and scalp. This patient, Ruth K., 12 years old, I last presented at the skin section of the New York Academy of Medicine, March 1st, 1927, as completely cured following 21 injections of the gold compound. Another patient, a young married woman with lupus erythematosus of the scalp, received 15 intravenous injections of the sodium aurothiosulphate, with marked improvement of the lesions. The treatment in this case had to be discontinued, however, on account of a pruritus and a lichenoid eruption that developed on her skin and buccal mucosa, probably due to the remedy. This toxic eruption disappeared in two weeks and two months later, the lesions on her scalp were completely healed.

It is still too early to say whether the results from this gold therapy in lupus erythematosus will be permanent in nature. It is possible that it may be of use also in preventing recurrences.

There have been some cases of lupus erythematosus reported, where the removal of a focus of infection, resulted in the healing of the lesions. This together with the occasional findings of a bacterial infection other than tuberculous, especially in the acute fatal cases of the disseminated type, speaks in favor of other causes besides tuberculosis, as responsible for this skin disease.

One other point is worthy of mention, and that is the frequency of external irritation, especially sunburn, given as a causative factor in lupus erythematosus; as well as the photosensitiveness of the skin, after the disease is developed, Pulay on the observation of one case, that showed a uric acid retention, suggests a purin-free diet and the administration of cinchophen to reduce skin photosensitiveness. Michael in his studies could not find any demonstrable photosensitizing effects in urea, uric acid or creatinine, in patients with various skin diseases or normal skin. He did not test the skin of any patient with lupus erythematosus. Great caution should be exercised in applying physical measures in which any form of light enters, in the treatment of this disease. Mild exposures and not over too large an area, with adequate protection of the uninvolved skin is necessary to prevent a possible dissemination of the lesions.

The tuberculin treatment of this disease, even when presumptive evidence exists of its tuberculous origin, is far from satisfactory. The tuberculin treatment in general will be discussed under tuberculosis.

Tuberculosis and Tuberculides

The rationale of the systemic treatment of parasitic skin diseases in general, whether local or circulatory in origin, is based on specific immunity, non-specific stimulation of the general defense mechanism and chemotherapy.

In the use of tuberculin, immunotherapy plays a rôle of no minor importance, but as two apparently similar cases of skin tuberculosis will respond to tuberculin treatment in a totally different manner, other factors must also be considered.

The choice of the different methods of using tuberculin seems to depend on whether a specific immunity is sought, a stimulation of the general defense mechanism desired or perhaps on both factors combined. As an example, the method advocated by MacKee (23) is probably based on specific immunity. He uses the Bacillus Emulsion and begins with a very small dose, ½ cc. of 1-50,000 dilution. The dose is increased by geometrical progression every five to seven days, at the rate of 25 per cent of the previous dose, at each injection. All reactions are avoided and treatment continued until a cure results.

Another method probably based on both factors is to use somewhat larger doses, i.e., 0.25 milligrams of old tuberculin and increase the dose every five to seven days, by 0.25 milligrams or more until two or three milligrams are reached. The increase in dosage is carried out in such a way that you obtain a definite local reaction after each injection, waiting for the old reaction to subside. The appearance of a strong general reaction without any local reaction, is a sign that the treatment must be given up.

MacKee cured with his method all of his eight cases of Bazin's disease in six to ten months time. One patient had a slight relapse. Lupus erythematosus and papulo-necrotte tuberculide failed to respond. The non-ulcerating type of lupus vulgaris showed some cures in contradistinction to the ulcerating types, that did not respond at all. The results in other forms of tuberculosis were mostly unsatisfactory.

Scholtz (24) uses old tuberculin and thinks the results are better where local reactions are produced. He prefers this treatment in Bazin's disease and lichen scrofulosorum and also in serpiginous lupus. In the other types of lupus vulgaris, scrofuloderma and tuberculosis verrucosa cutis, he uses the tuberculin as an adjuvant to other forms of treatment.

There are various kinds of tuberculin and still other methods of employing them, such as: intracutaneous injections of mild and weak dilutions and Pondorf's scarification procedure with undiluted tuberculin; mostly based on the local development of skin immunity. Scholtz thinks the intracutaneous method more often beneficial, especially if combined with small doses of arsphenamine or glucose injection. Stokes (25) is favorably impressed with the use of the arsphenamines alone in the tuberculides, especially when the treatment is persistent and systematic and the cases properly selected. The action of the drug in this instance is probably due to indirect stimulation of the defense forces of the body.

In tuberculosis of the skin and more so in the tuberculides, occasional spontaneous remissions, makes it difficult to judge the value of a remedy unless healing of the lesions takes place in a shorter period under treatment than without it. Unfortunately with tuberculin therapy, it may be a matter of many months, before a cure can be accomplished and this may be also the case with the arsphenamines in tuberculides. Until something better is discovered, the patient is entitled to these measures, provided they do not interfere with the general health and are accompanied with other aids that are known to arrest systemic tuberculosis.

Dermatomycoses

Scholtz thinks that the favorable effects produced by Trichphytin in tines profunda, should be considered on the basis of immunotherapy. He reasons that while the injections of milk and turpentine also act favorably in this disease, they are also beneficial in other dermatoses, while Trichophytin is only so in trichophytia profunda. Martin F. Engman recently demonstrated that intravenous injections of typhoid bacilli suspensions will cure large-spored ringworm infections of the beard, and of the scalp. Scholtz' reasoning may apply to this method also. The treatment by Trichophytin consists in making 4 to 8 intracutaneous wheals of a 1-100 dilution of Trichophytin, on the forearm, and if the reaction produced is only slight, to repeat it every two or three days with stronger dilutions of 1-50, 1-30, and finally 1-10. Eight to ten treatments are required, and during this time some form of mild local application may be used. Scholtz thinks this method just as effective as when given subcutaneously, even though the severe local reactions are absent.

Superficial types of ringworm infections and favus are not amenable to vaccines, although such measures have been tried. In tinea capitis and favus, the treatment with the roentgen-ray has not been surpassed.

Other Parasitic Diseases

In the impetigos, the local remedies are usually successful, while in furunculosis, relapsing folliculitis and sycosis vulgaris, resort to some stimulation therapy is often desirable in the form of a staphylococcus or mixed vaccine, milk or turpentine injections. There is a tendency to use the vaccines intracutaneously just as is done with milk, and a suggestion made in sycosis vulgaris, to inject at the site of the lesions, in order to increase the local immunity of the skin. The intravenous use of mercurochrome-220 soluble is advocated by Hugh H. Young in aggravated infections of the skin in general, as well as abscesses, cellulitis etc., and in various dermatoses. It is evidently a drug of marked germicidal value and worthy of trial particularly in streptococcal, staphylococcal and other bacterial inflammations of the skin of a severe nature. In doses up to 5 milligrams per kilogram of body weight, the intravenous use of this drug, is according to Young, practically unaccompanied by any danger.

In Sporotrichosis, potassium iodide in large doses has proven quite effective. In Actinomycosis or Blastomycosis, the use of the iodides is only of temporary benefit.

Progress in the treatment of Leprosy has been made with the use of the ethyl esters of chaulmoogra oil. A considerable part of the benefit derived from these oils and their esters is considered by Sir Leonard Rogers as due to the local reaction produced and to a specific effect exerted to a certain degree directly on the bacilli. It is impossible to prophesy in a disease that may remain latent for many years and then light up into an acute form. Yet many cases of leprosy are reported as free of all signs, after the prolonged use of the esters and it is hoped they will remain so. The results from the use of other remedies in this disease offer very little as yet to compare with chaulmoogra oil derivatives.

In Granuloma Inguinale, the intravenous use of tartar emetic is of decided chemo-therapeutic value. It is advisable not to sterilize the solutions by heating as a decomposition of the drug may occur. A Chamberland filter will avoid this. A. Randall finds antimony thioglycollamide and sodium thioglycollate, first used experimentally by Rowntree and Abel, in trypanosomic infections in animals, very efficient in granuloma inguinale and in higher doses less toxic. I have tried these compounds and also find them to be much better tolerated than the plain tartar emetic. Goldzieher and Peck think the bacillus venereogranulomatosis, the causative organism of granuloma inguinale and use a vaccine of this organism in conjunction with antimony. Their results seem promising, but further confirmation is necessary. In some phagedenic ulcerations of the genitals, antimony compounds are also of service.

Dermatoses like plane warts and molluscum contagiosum, are evidently of parasitic origin, possibly of the nature of a filterable virus. Some form of arsenic may produce a cure occasionally in either of them. I have seen fair-sized lesions of molluscum, fall off after one injection of arsphenamine administered for some other purpose. Richard L. Sutton on account of a similar experience with sulpharsphenamine in flat warts, recommends its further trial in such cases. In flat warts, especially in youngsters, the mercury protoiodide pills first suggested by Chas. J. White, will be found more simple and efficacious.

Summary and Conclusions

In the recent voluminous contributions to dermatotherapy, the systemic treatment receives more than the customary attention, owing to the advances in blood chemistry studies, immunology, chemo-therapeutics, endocrinology and studies of the vegetative nervous system.

Some of the systemic measures are effective, others less so. Even when effective, the local measures should not be neglected, if indicated.

Advances in knowledge of drug idiosyncrasy, has been of definite prophylactic value, and in specific instances like arsenic and bromide intoxication, also of curative value. Little progress has been made in the systemic therapy of the other toxic dermatoses.

The association of urticarial lesions with agents of a physical, chemical, parasitic, endocrine and psychic nature, is at first glance confusing; but the studies in connection with asthma, hay-fever, serum sickness, etc., point to the correlation of these different causes of urticaria and serve as a basis of some form of rational therapy. To a certain extent, this also applies to the prurigos.

The rationale of the treatment of eczema, including infantile eczema, is based on direct exciting causes, usually of external origin, that require removal; less often and as difficult to demonstrate, of internal origin, that need correction; acting on a skin whose hypersensitiveness must also be remedied because its cellular activity, vascular tonus and regulating mechanism are no longer adjusted to maintain a normal response.

Colloidtherapy, osmotherapy, protein therapy, endocrinotherapy, calcium and bromide therapy, arsenic therapy, desensitizing and detoxifying agents, alkalinization and psychotherapy, are all directed to reduce this cutaneous irritability.

A few cases of scleroderma are shown to be associated with arsenic in the blood and some cures have been obtained with sodium thiosulphate, an arsenic detoxifying agent. Perhaps the action of thiosinamine in this disease may be explained similarly.

Bromides intravenously are very effective in dermatoses with marked pruritus, and may be of value in Duhring's disease when combined with autoserum, in aborting relapses.

In Pemphigus, arsenic is still the remedy of choice, although the iron cacodylate and coagulen injections of Davis and Davis, have also been successful. If relapses occur the patients are usually doomed.

The treatment of Rosacea is more efficacious if dilute hydrochloric acid is administered for the accompanying hypo or achlorhydria.

Each new outbreak of psoriasis should be treated, to prevent chronicity. Some suitable arsenic preparation, not the arsphenamines, combined with autoserum and local therapy, offers results equal to any.

Arsenical preparations, if carefully chosen and used with discrimination, are also beneficial in other dermatoses like lichen planus, Kaposi's sarcoma, mycosis fungoides, etc.

In Parapsoriasis, pilocarpine by hypodermic injection is worthy of further trial. A few cures are reported.

Honorable mention goes to gold therapy in lupus erythematosus, for the results thus far obtained, are beyond anything hitherto observed with any other form of treatment. The removal of foci of infection and protection against the effects of skin photosensitization are also a part of the management of some cases.

Cures are reported with tuberculin in Bazin's disease, Lichen Scrofulosorum and the nonulcerating and serpiginous types of Lupus Vulgaris. Arsphenamine has its beneficial effects in tuberculides, in selected cases and can be used alone or in conjunction with tuberculin. Gold therapy is also occasionally of curative value in some tuberculous lesions.

Trichophytin vaccine is probably a specific treatment for tinea profunda, although intravenous injections of typhoid bacilli suspension, intramuscular injections of milk or turpentine, as well as definite local measures, may in some instances produce quite as efficient results.

In Furunculosis, relapsing Folliculitis and Sycosis Vulgaris, the local measures are usually supplemented by vaccines and milk injections, preferably given percutaneously and in sycosis, recommended at the site of the lesion, to increase the local immunity. In severe skin infections, mercurochrome-220 soluble in proper dosage and intravenously, is worthy of trial.

Protoiodide of mercury in flat warts is successful in most instances, in causing these lesions to disappear, if it is not, sulpharsphenamine may be tried by injection. In molluscum contagiosum some arsenical may also be tried, when the lesions are numerous.

Sporotrichosis is amenable to cure with large doses of potassium iodide by mouth. Actinomycosis and Blastomycosis much less so. In Leprosy, the ethyl esters of chaulmoogra oil, offer a definite advance in the treatment of this disease and it is hoped that further studies will eradicate this scourge. In Granuloma Inguinale and some Phagedenic Ulcerations of the Genitals, tartar emetic and other antimony compounds have been of definite benefit.

The treatment of skin diseases is being placed more and more on rational scientific procedures. Dermatologists of wide clinical experience, who developed the local treatment of skin diseases to its present high peak of usefulness have turned to the methods of the internists, and in many instances have directed or performed many of the experiments that are responsible for whatever effectiveness the systemic measures accomplish in various dermatoses. The proper conception of the various problems involved, their proper solution and the effects of a remedy in skin diseases, is best interpreted by such experienced clinicians.

Contrary to the opinion prevalent in some quarters, dermatology in its present aspect, is a specialty requiring diverse talents and years of effort, before sufficient skill is developed in mastering it. It is natural to look for further progress from those adept in this field, and considering the contributions thus far made, the outlook is hopeful.

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INDICATION AND CONTRA-INDICATIONS FOR CESAREAN SECTION*

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THE large increase in the number of Cesarean sections being done during the past five years throughout the country very properly brings before us the consideration as to whether the frequency of this operation is justified or not, and a statement of its indications and contra-indications.

The ease and safety with which it can be performed, if the ordinary rules of modern surgery are followed, has tended to make it popular both among the profession and among women. The short time it takes for its performance, the absence of shock, of lacerations and injuries to the mother's soft parts, no injuries to the baby's head, and no birth palsies, make a decided appeal to the physician; while the relief from the suffering of a long or dangerous labor appeals even more strongly to the mother. If this could be done always with perfect safety to the mother and with a certainty of no bad effects in subsequent labors, we would indeed have arrived at an obstetrical millennium.

We all realize, however, that we have not as yet arrived at such a millennium; and the reason is that there is still a definite morbidity and mortality to any laparotomy, no matter how skillful the operator or how favorable the surroundings.

With the small scar high up on the abdomen there is now no danger of postoperative hernia, but we cannot observe the healing of the uterine incision or judge its reliability when put to the strain of the next labor. We still see deaths from peritonitis in cases that supposedly have not been infected.

Therefore, in considering the mode of delivery of our prospective mothers, we must consider not only the immediate morbidity and mortality, small as it is, but the possibility of rupture of the uterine scar under strain. Bearing these dangers in mind, there is a small but definite group of cases which can be delivered more safely by abdominal section than by the natural passage, and in my opinion, it is only by adhering closely to the more or less definite indications rather than operating on all possible cases, that we can keep this valuable operation from falling into disrepute.

I will not go into the history of Cesarean section except to recall to you the statement made in the early eighties that "the mortality of Cesarean section when performed by American bulls was lower than that by American surgeons" and to point out that its safety has increased with the application of asepsis and the small high modern incision, as well as the delivery of the child without bringing the uterus outside of the abdominal cavity.

In looking over the recent literature on the subject, I find a very large number of conditions given as the reason for operating; among these being: absolutely contracted pelvis; contracted pelvis (border-line cases); disproportion between fetus and pelvis; contracted outlet in funnel pelvis; habitual fetal death in labor; prolapsed cord; tumors obstructing birth canal; stenosis of cervix from scar tissue or cancer; eclampsia, preclamptic toxemia; placenta previa; concealed hemorrhage from separation of normally implanted placenta; cardiac decompensation with complications; edema of vulva; face, brow, occiputposterior, and transverse presentations; mother nervously unfit.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

In this long list there are a few very definite indications, a number of allowable indications, more of very hazy indications and some that are indefensible.

I will take these up separately, but briefly:

Absolutely Contracted Pelvis—About this condition there is little argument and Williams states that "a true conjugate of less than 7.5 cm. renders the spontaneous birth of an ordinary full term baby impossible, though it is possible after a craniotomy."

Contracted Pelvis (Border-Line Cases)—These would be the cases with a true conjugate above 7.5 cm., and here the obstetrical judgment and individual preference of the attendant comes into play. With some who are also gynecologists or do considerable obstetrical surgery, their mind may be more or less biased by their knowledge of what can be safely accomplished by surgical means. Others who do no surgical work at all, but who have attained a high degree of skill in delivering difficult cases by forceps or version are naturally prejudiced in favor of this method of procedure. To my mind, the course to follow in this class of cases is to weigh the evidence of our findings pro and con, and to decide by what shows to the greater advantage and safety of mother and child.

This evidence consists of careful and painstaking pelvic measurements, position and presentation, size of child and ability to engage the presenting part if a vertex, the amount of flexion, and compressibility of the head.

Our obstetrical judgment based on these findings can only be of value if built on careful observation of the delivery of a large number of such cases. For how often we see a case in which we had feared a difficult labor, go through with no trouble, or at the most a low application of forceps. A few cases have been reported of women delivering themselves spontaneously while being prepared for Cesarean. These were probably cases in which the pelvic measurements might have forecast trouble, but in which the attendant had not taken into consideration the size of the child or the compressibility of its head.

The estimation of the size of a child at term is of greatest importance, and while it can never be anything but relative, one can by an antepartum estimate in every case he sees come to a fair degree of skill.

There is no argument in the border-line case as to the possibility of Cesarean section, for we know that we probably will get both a living mother and child. But at the same time we must consider the maternal morbidity and mortality, small as it is, and also the effect of the operation on subsequent labors. This I will take up later.

On the side of delivery through the birth canal we must consider not only the possibility of delivering a living unmutilated child through undamaged soft parts, but we have to realize the possibility of cerebral injury and of nerve lesions due to difficult forceps or version. Too often we see in our own, or in the practice of others, stillborn babies, mental defects from brain injury, fractured humerus or clavicle, or birth palsies, all due to a mistake in our judgment.

It is poor obstetrics to do a Cesarean because we have the opportunity, because it is easy and simple, or because we can persuade ourselves or the patient that it is permissible on account of a slightly contracted pelvis; but it is also poor obstetrics to drag a child through a small pelvis by forceps or version simply to demonstrate our ability to do it. As someone has said, "It is possible to go through the Niagara whirlpool in a barrel, but not advisable." These border-line cases should be decided by trying to put aside our personal preferences or prejudice and deciding what is for the best interest of the mother and next for that of the baby.

If we cannot come to a definite decision, I consider it permissible to allow the test of labor for a limited number of hours hoping that the head will engage. This can be done safely by avoiding vaginal examinations (with the exception of one to estimate the conjugate vera) and obtaining our information of progress from abdominal findings.

If then we find the head unable to engage after molding we can operate; while if the head does engage we can let labor proceed, and we have saved the patient an unnecessary surgical operation.

Disproportion Between Fetus and Pelvis—Here we have practically the same problem to meet as in relatively contracted pelvis. Occasionally these very large babies are overtime and any woman who goes past her expected date of confinement should be seen frequently and the size of the baby estimated carefully. If the baby seems to be above the average size or as large as would seem safe for the given pelvis, labor should be brought on.

Contracted Outlet—The funnel type of pelvis is more common than is generally supposed, and many of the women who give a history of low forceps in their labors belong to this type. Fortunately we do not see many of the badly contracted outlets. They may cause serious trouble in delivery, however, and if the distance between the tubera ischii measures less than 8 cm. the anterior and posterior sagittal should be estimated. If the posterior sagittal falls short it is better to do a Cesarean than to subject the baby to the danger of cerebral hemorrhage from a difficult forceps extraction. As has been aptly pointed out, "It is sometimes easy to get a head into a pelvis but difficult to get it out."

Habitual Fetal Death in Labor—We should do our best in these cases to determine the cause of the previous deaths, by Wassermann reaction, careful exploration of the pelvic cavity, etc.

If we are unable to ascertain the cause and are, therefore, unable to correct it, I feel that these women are entitled to Cesarean section to obtain a living child.

Tumors Obstructing Birth Canal—Tumors obstructing the birth canal form a more or less definite indication for section. These may be uterine fibroids, or the various solid or semisolid ovarian tumors; but as they often become gangrenous from labor pressure or torsion of the pedicle, it is safer for the mother not to subject her to the risk of labor. In this instance, the low or median incision should be used and the tumor removed, if pedunculated, after the uterus is closed. Nonpedunculated uterine fibroids may be removed before pregnancy or fairly early in it, but at term they are not a cause for Cesarean unless obstructing the canal and could be removed between pregnancies if thought best. A pedunculated tumor may be a cause for section for fear of torsion, whether obstructing the canal or not.

Prolapsed Cord—This complication in a multipara should practically never be cause for section. In nearly every case the cervix could be dilated, manually, rapidly enough to permit the delivery of a living child by version. In a primipara with rigid cervix it may be justifiable, but here it is entirely in the interest of the child, and the case should be stated clearly to the parents, leaving the decision with them.

Placenta Previa—To make a statement positively that placenta previa should or should not be treated by Cesarean section is irrational. There are so many factors differing in different cases that the treatment of the one in hand would have to be decided on what presented in that particular instance.

No one would agree that all placenta previa should be treated by section; and certainly no one should say that no placenta previas should be so treated. The ordinary classification of placenta previa is that of marginal, or only a slight encroachment on the cervix. Partial, or the os partly covered by placental tissue. Complete, the os completely covered. Central, the os not only completely covered, but near the center of the placenta.

The marginal or partial varieties usually cause us but little anxiety or trouble, and often as simple an expedient as rupturing as membranes and allowing the head to come down on the detached area will arrest the bleeding. If this does not accomplish it, a Voorhees hydrostatic bag will almost certainly do the work, and at the same time give us the much desired dilatation for delivery.

A complete placenta previa is a much more serious affair and often taxes the skill of the accoucher to the utmost.

Here the treatment would depend on the dilatability of the cervix, the amount of placental tissue involved, the amount of blood lost by the patient, etc. If the cervix were soft and the edge of the placenta near enough the os to allow us to push it to one side, we could use a rubber dilating bag, or do a version and extraction. If the cervix were rigid, the hemorrhage considerable, or the edge of the placenta out of reach of our finger, we would get better results for both mother and child by a Cesarean.

A central implantation I consider to be an absolute indication for Cesarean except under unusual circumstances. This would apply more particularly to primipara with rigid cervix.

In the less serious conditions the best results will be obtained for both mother and child by the use of the rubber bag rather than the more popular version. For version, using the baby as a dilating wedge, while giving as favorable a maternal mortality as the bag causes the death of most infants.

Cesarean section, if used in central implantation and in some of the complete variety, will give a much lower mortality than if we use other treatment and allow our patients to become exsanguinated during the slower delivery. Whatever treatment is chosen the fetal mortality will always be considerable as many of the infants are premature or weak from loss of blood.

Concealed Hemorrhage from Separation of Normally Implanted Placenta—Most of these we see are not especially serious and may safely be treated as we would treat a mild degree of placenta previa, by dilating the cervix with a hydrostatic bag. Williams and Couvelaire have reported a number of the extremely dangerous type in which the body of the uterus has undergone degeneration and refuses to contract. The diagnosis is made on the rigidity and boardlike consistency of the uterus and a section should be done, followed by a hysterectomy.

Eclampsia—There have been many theories advanced as to the cause of this serious complication of pregnancy, and as many methods of treatment. Two of the most rational theories are: First—an excess of cytotoxin (a protein poison originating from the fetus) circulating in the maternal blood and which is not neutralized by sufficient cytolysin of maternal origin. The other theory is that it is an excess of the products of maternal and fetal metabolism which the kidneys and liver cannot dispose of. Personally I am inclined to believe that the theory of a protein poison is the nearest right. Dr. Victor Vaughn of Ann Arbor has shown that meats contain a protein poison, and that ordinarily it does no harm as a food as the body has developed certain defenses to counteract it. Among these defenses are the ductless glands. He has shown that if you remove the thyroids from sheep or goats, they, being herbivorous animals, are not affected; but if you remove the thyroids from dogs, though they will live for a considerable time on bread and milk, they will die in convulsions in a few hours if fed on meat.

What the real cause is we do not know, except that it is a toxemia in which the kidneys and liver are the chief organs to sustain damage. It sounds reasonable enough to say that to relieve the woman of the pregnancy which is causing the toxemia will cure the disease; but unhappily, this is not borne out by actual experience as we often see postpartum eclampsia.

A few years ago the treatment consisted mostly of a large amount of chloroform given with each convulsion, and as this only hastened the breaking down of liver cells in an already damaged organ, the mortality ran over 50 per cent.

Then came the treatment of elimination by the bowels, skin and kidneys with a reduction of mortality to about 30 per cent. Today there are two plans of treatment. First, immediate delivery by abdominal or vaginal Cesarean section; and second, that of elimination combined with morphine and magnesium sulphate.

The party advocating immediate delivery by section is led in this country by Peterson of Ann Arbor and the party advocating medical treatment is led by Tweedy of Dublin, and Stroganoff of Russia; and I will quote statistics to explain my position in this question.

In Peterson's paper "Abdominal Cesarean Section in Eclampsia" he reports 500 cases delivered by section in which 174 died, a mortality of 34.8 per cent. He also reviews 283 cases delivered by many different operators with seventy-three deaths, a mortality of 25.7 per cent.

His first table shows a mortality of 15.9 per cent after prompt delivery in 615 cases.

Dr. A. B. Davis of New York reports thirteen cases of eclampsia which he delivered by Cesarean in which four died, a mortality of 30.7 per cent.

Kellitz, who collected twenty-eight cases of Cesarean section for eclampsia, with a maternal mortality of 50 per cent, and a fetal of 62 per cent.

Bourne of England reports a maternal mortality of 32 per cent and a fetal of 50 per cent.

On the other hand, Stroganoff has personally treated a large number with a maternal mortality of 6.6 per cent and a fetal mortality of 21.6 per cent. Six hundred cases have been treated in Russia according to his method, with a maternal mortality of 8 per cent and a fetal mortality of 21 per cent. A number of cases have been treated in Germany in the same way with a maternal mortality of 6.5 per cent and a fetal mortality of 18 per cent. Tweedy of Dublin reports a mortality of 9 per cent. Zinke of Cincinnati reports a maternal mortality of 13.3 per cent and a fetal mortality of 46.6 per cent under elimination plus veratrum viride. Our maternal mortality at the Buffalo General Hospital since using the conservative treatment—morphine and magnesium sulphate—has dropped from 50 per cent to 10 per cent.

Vaughn has made experiments in injecting egg white into the ear of a rabbit and finding it in the alimentary canal, and he says that there is no question but what the protein poisons and various other poisons are eliminated by the alimentary canal. These experiments of Vaughn's give us a very rational explanation of the brilliant success of Stroganoff's and Tweedy's treatment of eclampsia which includes gastric lavage and repeated colonic irrigation.

The answer to this perplexing question of the treatment of eclampsia will probably come to us from the physiological laboratory rather than from the operating room.

The great difference in the maternal mortality between surgical and medical treatment is most striking; but grant for the sake of argument that they are equal, which they are far from being. Even if they were equal in results, the medical treatment leaves the mothers surviving the disease in the same physical condition, while a Cesarean section leaves a uterine scar of uncertain strength in subsequent labors.

Zinke says, "He who denies the efficacy of medicine in the treatment of eclampsia betrays a lack of knowledge and experience in which a competent surgeon should not be wanting."

Bourne says in his "Recent advances in Obstetrics and Gynecology" that "It is becoming more and more apparent that Cesarean section has no place in the treatment of eclampsia."

A primipara with undilated cervix is more entitled to section than a multipara, for here the mother could be delivered with comparative rapidity by dilating the cervix manually or by hydrostatic bag.

I am not arguing that Cesarean section should never be used in eclampsia, but rather that it should be used only in those cases that do not respond to medical treatment, or where there is some other complication, as contracted pelvis, that would prolong pelvic delivery.

Cardiac Decompensation—There need rarely be any great anxiety of a woman's safety during delivery on account of a valvular lesion unless she has lost compensation. In the face of this condition, we are often anxious and rightly so, for any prolonged muscular exertion or pain may bring serious results either immediate or remote.

One great aid in lessening the strain and physical suffering and in adding to our patient's safety is the use of morphine and scopolamine during the first stage. This with other aids, such as dilatation of the cervix, forceps, or version, in favorable cases will carry many to a favorable conclusion. Mackenzie gives a poor prognosis with mitral stenosis or aortic regurgitation.

There will still remain a small number of cases with decompensation where none of these maneuvers will give us a sufficient margin of safety. Among these would be the primipara with rigid cervices or some complication, such as malpresentation or disproportion between fetus and pelvis, and here I feel that we are justified in delivering quickly by abdominal section under gas-oxygen anesthetic or under local anesthesia.

I would like to briefly call to your attention the simplicity and value of local anesthesia in cases such as eclampsia, diabetes, or decompensated heart cases who cannot stand an anesthetic. Inject about half a dram of 1 per cent novacaine solution, about half an inch from each costal angle, going deeply enough to feel your needle pass through the facia. Another half dram just internal to the anterior superior spine of the pelvis to catch the ilioinguinal nerve. Thus you have blocked most of the nerves supplying the abdominal wall, but it is best to also make a generous wheal in the skin at the site of the incision. By covering the patient's eyes and by having a nurse sit at the head of the table and engage her in conversation, she will go through with practically no pain or mental distress, but is apt to complain of a disagreeable sensation of dragging as the baby is brought through the incision. For the same reason she will complain if you put much traction on the peritoneum or other tissues.

Of course, this procedure will not compete with anesthesia in the ordinary case, but is of great value occasionally. I have five such cases to report, all successful and practically painless. One, a diabetic; one, a diabetic and nephritic, and three cases with decompensated hearts.

The remainder of indications listed earlier I shall group together as "Indefensible indications for Cesarean Section." These are: edema of the vulva; face, brow, occiput posterior, and transverse presentations, and mother nervously unfit.

Edema of the vulva can practically always be reduced by purging and diet, or by multiple puncture. The different malpositions such as face, brow, occiput posterior, and transverse should be amenable to skillful obstetric manipulation.

The reason that a mother is nervously unfit to undergo labor seems to me to be a far cry. Personally, I should be inclined to carry such a case through labor with the help of morphine and scopolamine, or some other sedative.

In taking up the danger of rupture of Cesarean scar, I can do no better than to quote the conclusion of Dr. Palmer Findley of Omaha, Nebraska, who has analyzed sixty-three reported cases. There are many able men who abide by the dictum "Once a Cesarean, always a Cesarean," but many of us have delivered cases by the natural passages, following a Cesarean, and Findley's opinion based on so large a series should bear great weight.

He said: "When Cesarean section has been followed by a fever course, the uterine wound should be regarded as insecure in event of a subsequent pregnancy and should call for a repeated section at the onset of labor. A perfectly healed Cesarean wound may be relied on to resist the forces of labor, but in view of the fact that the integrity of the wound is an unknown factor in all cases, we are constrained to exercise the utmost caution and calling for masterly control in the conduct of every case in pregnancy and labor following Cesarean section. The liability of rupture is a real danger and should stand as an argument against the increasing tendency to widen the scope of elective Cesarean operations."

The types of Cesarean most commonly used in this part of the country are: first, the "High Davis" with its small incision above the umbilicus; second, the so-called "Classical" with its generous incision below the umbilicus; third, the low cervical with its incision just above the pubis. The extra peritoneal operation is rarely done as the technique is difficult and on account of tearing of the peritoneum is apt to become intra-peritoneal. The new extra peritoneal operation as described by Brodhead before this section last year sounds simple and logical, though personally I have not had the necessity of using it in an infected case as yet.

The High Davis and the Classical operation enjoy a well-deserved popularity in cases before or early in labor, but should not be used late in labor, in cases with ruptured membranes, or where there has been frequent examination or attempted interference. It is in these cases where we may safely use the low cervical operation. Its technique is slightly more difficult and time-consuming, but its greater factor of safety far outbalances this. The extra peritoneal might be reserved for frankly infected cases, and here would be safe where other types of operation would be most dangerous.

Dr. Rudolph Holmes, in expressing his views of the increasing frequency of Cesarean section has written an article entitled "Obstetrics, a Lost Art," and while I feel that this is an extreme view to hold, it might well be justified if the present furor for Cesarean section continues to grow.

RABIES AND ITS CONTROL*

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RABIES, or hydrophobia, is an acute, specific infectious disease of animals and man. It is characterized by an incubation period of variable length; nervous disorders; extreme reflex excitability, followed by paralysis; the absence of gross lesions by which its identity can be assured; specific microscopic changes in the brain; and exceedingly high mortality. Its etiology has not been determined positively, but it is known to be a filterable virus. All mammals may be infected and certain birds are reported to be susceptible.

Historically, rabies was one of the first specific diseases to be described. Aristotle described it in the fourth century B. C. He wrote, "Dogs suffer from madness that puts them in a state of fury, and all the animals they bite, when in this condition, become also attacked by rabies." Notwithstanding, many people, including some medical men, question its existence. The name "hydrophobia" (fear of water) was assigned to human rabies by Cornelius Celsius, who lived in the early part of the Christian era.

Geographically, it is widespread, being known to have existed in nearly every country on the globe. It was brought to America about the middle of the 18th century. It spread gradually throughout the United States and Canada. It continues to exist in these countries in more or less restricttd areas which are changing constantly as the infection spreads to new territory and disappears from the old.

Pasteur pointed out that its virus gains entrance to the tissues through wounds, infected with the saliva of rabid dogs, and that it becomes localized in the central nervous system. The virus travels to the brain through the nerves or lymphatics immediately surrounding them. It escapes from the body with the saliva. The extent of its presence in other secretions or excreta has not been determined. Nocard found that glycerin, which destroys most bacteria, is an excellent preservative for the virus in brain tissue. It will remain virulent in this medium for several (three to four) weeks.

In 1903, Negri discovered peculiar structures in the cytoplasm of brain cells and suspected them to be of etiological value. Williams gave them the name *Neurorrhyctes hydrophobae* and pointed out definite reasons for placing them among the protozoa and for believing them to be the specific cause. Kelser states that his studies "lend support to the contention that they are a type of protozoan organism primarily responsible for the disease." The description by Manouélan and Viala of structures in the nerve cells which they call *Encephalitozoon rabiei* are not yet clearly differentiated from Negri bodies. Other workers have considered them products of degeneration. Kraus, Gerlach and Schweinburg, in their recent volume of Lyssa, place much emphasis on the value of Negri bodies in the diagnosis of rabies. They give numerous methods for demonstrating and differentiating them from other known cell inclusions. Their presence is considered evidence of rabies.

The natural mode of infection is through the bite of rabid animals. Because of the proneness of dogs to bite, the infected canine is the chief factor in its spread. It is not necessary to dwell on the syndrome of rabies in this species, for it is described fully in modern textbooks on infectious diseases.

In the prevention of rabies the diagnosis is of first importance. It is difficult, and often impossible, to determine positively the presence of the disease from the symptoms, especially in its early stages. The two types of rabies, namely, the "dumb" and the "furious" forms, are not distinctive in all cases. Porcher has pointed out that glycosuria is a characteristic symptom, and Coakley has called attention to the pin-point contraction of the pupils as a manifestation of much value. However, these are not always easy to recognize, and, further, they are said to be absent in some cases. The changes in the brain described by Babes and Golgi are often difficult to find. The cellular proliferation in the peripherial ganglia of the cerebro-spinal and sympathetic systems, pointed out by Van Gehuchten and Nelis, is not always in evidence, especially if the suspected animal is killed in the early stages of the disease. Frothingham found that these changes sometimes occurred in one ganglion and not in another. The subdural, or intraocular, inoculation of rabbits, or other animals, with suspensions of the brain is not satisfactory because of the long and variable period of incubation. This is particularly true when people have been bitten and a diagnosis is wanted to direct the treatment. It was, therefore, a great step forward when Negri bodies were proven to be of dependable diagnostic value. Their detection in brain cells is considered positive evidence that the animal or person from which they came had rabies or had been infected with its virus. These bodies may appear in the brain of an infected individual several days in advance of recognizable symptoms, and the saliva may be infectious for an appreciable time before symptoms are in evidence.

In the practical handling of an outbreak of this disease all dogs, and possibly other species, exhibiting suspicious symptoms should be destroyed and their brains examined for Negri bodies. When symptoms are absent, the suspected dogs should be confined under close observation, to ascertain whether or not they are in the period of incubation. If the dog remains well for several (5 to 15) days, the chances that it transmitted the virus are exceedingly slight. On the other hand, if the dog is about to come down with the disease, and its bite is liable to transmit the virus, it will exhibit symptoms in a few days when it can be destroyed and the diagnosis made. In most cases this can be done in time for those who have been bitten to be given the preventive treatment. Should the bites be about the head and shoulders, the treatment should be administered promptly. Pure nitric acid applied immediately to small wounds is a very effective disinfectant.

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The methods for demonstrating Negri bodies are described clearly in our laboratory manuals and are well understood by technicians. It is recognized, however, that great care should always be exercised in doing the work. From the point of view of control, prompt diagnosis is of first importance. It enables people who have been bitten to take preventive treatment, and, likewise, it gives sanitary officials time to enforce regulatory measures to prevent subsequent cases.

In any effort to control rabies it should be recognized that people should be made to understand, in a general way at least, the necessity for the enforcement of preventive measures and the reasons for them. Before the public can become reconciled to regulatory supervision of their pets, the physicians and veterinarians, who are their immediate advisers, must be familiar with the problem. We have witnessed outbreaks that were prolonged and the number of cases increased unnecessarily because the professional men to whom the owners appealed for help were as skeptical and bewildered concerning the malady as the laymen themselves. Such a situation reminds one of the "blind leading the blind."

An inquiry into the prevalence of rabies in the United States shows that it is a more formidable destroyer of life than is supposed. Prior to Pasteur's discovery of a preventive treatment, it was the cause of many deaths in Europe. Until quite recent times there seems to have been little, or no, data relative to its presence in this country other than statements that at different times serious outbreaks had occurred. In 1884, Salmon found that it was widespread in the United States. The census of 1890 recorded 143 deaths in man, scattered over thirty different states. Kerr and Stimson found that, in 1908, 111 people died of rabies in the United States and that it had existed among domesticated animals in 534 localities. The states which contained the largest number of areas in which the disease existed were Wisconsin, Illinois, Virginia, Maryland, Delaware, New Jersey and New York. The losses among animals in Wisconsin were estimated by the state veterinarian to be 400 cattle, 100 hogs, 56 horses and 28 sheep. Nelson, Chief of the Biological Survey, U. S. Department of Agriculture, called attention, in 1917, to the great damage caused by rabies among predatory animals in Nevada, California, Idaho and Utah.

In 1921, T. F. Sellers, Director of the Georgia State Board of Health Laboratories, found that rabies existed in 29 states and that a total of 5,558 heads had been examined for diagnosis in official laboratories and that 2,699 of them were positive. Further he learned that there had been 168 cases of rabies in man from 1917 to 1921, and that 26 of these had occurred during and after the Pasteur treatment. In 1924, Eichhorn presented the data on its existence which he had gathered by means of a questionnaire sent to state laboratories. He received 34 replies and the information they contained is given in the appended table.

Year	No. of Positive Examinations made in State Laboratories	No. of Persons Given Anti-rabies Treatment	Human Deaths
1920	1,506	3,350	25
1921	2,005	4,567	35
1922	2,522	6,041	34
1923	2,705	6,110	37

In recent years, rabies has been reported more frequently in the southeastern and southwestern states than elsewhere in the country, although it has existed in several areas in other states. Fifteen years ago it prevailed extensively in the northeastern part of the United States. The information we have relative to its distribution indicates that it is still widespread, appearing here and there in more or less isolated areas, and spreading from these centers.

The dissemination of rabies in New York State, outside of New York City, from 1898 to 1926, is both interesting and instructive. At first, there were a few cases in the Hudson River Valley. The number increased steadily for two years in and about Albany. Gradually it extended westward, following the main highways and railroads and establishing foci in the larger cities. It radiated from this westerly course to the north and to the south, again following the usual routes of travel. The number of examinations made at our laboratory for diagnostic purposes increased from a very few in 1898 to 588 with 295 positive specimens in 1908.* Since that time the number dropped annually until 1923 when there were but 36 examinations with only four positive cases. In 1926, there were 74 dogs' heads examined of which 26 were positive. This increase in number marks the beginning of another series of outbreaks, again beginning in the lower part of the Hudson River Valley, and spreading as before in a westerly direction. Williams reported for 1926 in New York City a total of 888 examinations for rabies of which 462 were positive. This was an increase of 377 examinations over the previous year. In her report, attention is called to the significant fact that 128 of these specimens were classed as stray dogs.

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* The authority for the control of rabies in New York State was vested in the Commissioner of Agriculture and practically all of the specimens for diagnosis, outside of Greater New York, were sent to the New York State Veterinary College for examination. In 1925 the legislature transferred the control of rabies to the Health Department. Since that time examinations have been made in several laboratories.

We are interested especially in the control of rabies. As it is disseminated through the bites of rabid animals, and as the dog is the one domesticated animal, possessed of a natural tendency to bite, the control of rabies in dogs circumscribes the problem so far as it concerns public health officials. There is a large literature on rabies in wild animals but in the greater part of the thickly populated sections of this country its spread to man by such animals is negligible.

The prevention of rabies involves one of two procedures, namely, keeping the virus away from our dogs, or immunizing them against it. The procedure that has been employed with varying degrees of success in local communities for keeping dogs from becoming infected *is the enforcement of general quarantine.* It involves the elimination of homeless dogs, and the rigid application of the muzzle, or the leash. When there is full cooperation between dog owners, members of the medical professions, and health officers, this procedure is very satisfactory. It is being followed under some form of regulation in practically every state. The failures have been due. for the greater part, to laxity in the enforcement, makeshifts for muzzles and placing too small an area under quarantine. The quarantine area should be large enough to include the territory covered by the wandering, rabid dog. The procedure demands prompt diagnosis, the destruction of all animals that have been bitten by the rabid dog, or placing them under close observation and the *elimination of stray and homeless canines.*

One of the practical difficulties is the tendency of affected dogs, especially those with the furious form, to wander from home. They often travel long distances (30 to 40 miles) before death ends the struggle. Usually such dogs "jog" through the country on a "dog trot" and if not disturbed ordinarily do little harm, but, if they are attracted by moving people or animals, they are liable to bite. This is why stray, or loose, dogs are more apt to be bitten and why they present the greatest opportunity for the disease to spread. The bitten dogs become new centers of infection from which still other cases may arise. This explains why the quarantine of small areas, like villages, is inadequate.

While the preventive treatment introduced by Pasteur has been successful in man, it is too expensive for the practical immunization of all dogs. To overcome the objection of repeated doses required by the Pasteur method, many researches have been made to produce a single-injection vaccine for immunizing dogs.

Umeno and Doi produced a vaccine by keeping an emulsion, prepared by grinding the central nervous tissues of a rabbit, dead from fixed virus, in a mixture of sixty parts of glycerol and forty parts of 1.4 per cent phenol and holding it for two weeks at room temperature. They reported that in 104,629 dogs in Tokyo and Yokohama that were treated with it, only forty-one cases of rabies occurred, while 1,699 cases appeared among the unvaccinated dogs. Kondo prepared a single vaccine from the brains of rabbits, inoculated with a fixed virus, and exposed to different temperatures. It was applied to 20,117 dogs in Hokkaido, Tokyo, and ten other prefectures from June, 1919, to February, 1921, and with the exception of four dogs that died within a week from natural infection, contracted prior to vaccination, no cases of rabies were reported for a period of one year. Kondo makes the following summary of his work:

(1) "Of various vaccines which were prepared and tested on animals in the laboratory the one prepared by incubating the emulsion of the brain and cord from animals infected with a fixed virus at 37°C. for three days, or that prepared by keeping the emulsion at room temperature for ten days, is most applicable for the vaccination in the dog.

(2) "The vaccine prepared by incubating the emulsion at 37°C. is better than that prepared by keeping it at room temperature because more uniform attenuation of the virus could be expected in the former treatment.

(3) "In the dog the vaccine is to be once inoculated subcutaneously in doses of 5 c.c.

(4) "For the source of the vaccine, the brain and cord of the dog are better than those of the rabbit because the yield in the former is six times more than that in the latter.

(5) "The immunity produced by the vaccine lasts for but one year."

In 1926, Kondo states that the official statistics of the Japanese Bureau of Animal Industry show that the total number of animals vaccinated from 1918 to 1925 was 755,270, consisting of 755,072 dogs, 115 cattle, 69 horses, 2 hogs, 7 sheep and 5 goats. Of the treated animals 170 dogs, 5 cattle, 2 horses, 4 sheep and 2 goats, developed rabies within one year.

A large amount of research work on the preparation of a single-dose vaccine has been done in this country. Eichhorn and Lyon conclude from their work that dogs can be immunized experimentally by a single-injection method and that in practice their laboratory results are confirmed. They state that "thus far they include statistics on about 2,500 dogs which have been given the single-vaccine against rabies. None of these animals developed the disease." They state further that "No data is available to establish how many of these animals were exposed to the disease."

Reichel has shown that dogs can be protected by the single-injection vaccine against inoculation with a fixed virus. A few experiments made in my department confirm his results.

The control of rabies through annual vaccination of dogs by a single-dose vaccine is a hope of sanitarians. There are at least a few, and perhaps many, people who would welcome a uniform law requiring the annual vaccination of all canines. The last report from Kondo suggests that the Japanese have a method of preparing a vaccine that will be satisfactory. As there are apparently several strains of street rabies virus, it is not clear whether a vaccine that will protect against its own antigen will immunize dogs against the strain of street virus they may be infected with through the bites of rabid dogs. The statements from several health officials indicate that the vaccination of dogs has given excellent results but, unfortunately, they do not mention the normal incidence of rabies in the communities where the method has been applied.

On the other hand, we are told by a few laboratory men and sanitary officers that dogs that have been vaccinated and later exposed, have developed rabies and died. Dr. Church, Deputy State Veterinarian of Pennsylvania, tells us of several unfavorable experiences with the single-dose vaccine. Dr. E. P. Savage of Weslaco, Texas, states, in a letter to our laboratory, that a dog that had been vaccinated at the base of the skull with single-dose vaccine developed rabies. Also, he affirms that if the full dose of vaccine is injected in one place, in the region of the body mentioned, it will cause hydrophobia. Schoening carried out a series of experiments in the Federal Bureau of Animal Industry on the immunization of dogs against rabies by the single-dose vaccine method. He pointed out the existence of two or more strains of rabies virus and showed that vaccination against one strain did not immunize against the other. For example, he obtained distinct protection against intra-ocular inoculation with one strain in 12 out of 16 vaccinated dogs, but with a different strain of street virus (B. A. I. 474) practically no protection was afforded the treated animals.

A further point to be determined is the length of time immunity induced by vaccination will last. The Japanese do not place it beyond one year. Meissner and Baars found the immunity to last from 8 to 14 months. Fortunately, we do not have any community in the United States where the normal incidence of rabies is sufficiently high or constant for a practical test of the efficiency of this method. For that reason the value of vaccines must be determined experimentally. To do this on a sufficiently large number of dogs to render the results trustworthy is both a difficult and an expensive task. To recommend the control of rabies by the universal vaccination of dogs, with a vaccine at best of questionable efficiency, would be most unfortunate. The moment the idea of protection by immunization is accepted by the public all other precautions will be deemed unnecessary and most likely abandoned. If the method should fail, it would become a serious menace rather than a protection.

Finally, from the success in the control ot rabies that has been obtained by rigid quarantine the following conclusions seem to be justified, until more extended knowledge of the subject may indicate a different procedure.

1. That the practice of making an early diagnosis and the enforcement of *rigid quarantine* be continued in all communities where rabies exists.

2. The small, normal incidence of rabies in any locality in the United States, does not justify the annual, compulsory vaccination of all dogs as the sole means of control.

3. In localities where rabies exists, the vaccination of all dogs might give additional protection. However, it should *not* be used as a substitute for the enforcement of rigid quarantine but in conjunction with it.

4. The results that have been recorded from the use of single-dose vaccines do not justify health officers, or live stock sanitary officials, in relying solely on this method for the control of rabies.

5. The degrees of success that have been attained experimentally, both in this country and in Japan, in producing an immunizing vaccine against rabies, give encouragement that eventually a single-dose vaccine may be discovered that will protect against all strains of rabies virus.

DISCUSSION

In answer to questions, Dr. Moore said: I do not know how the misunderstanding of many people concerning rabies can be corrected unless it is by personal instruction given them by their physicians and veterinarians. The funds collected by means of a tax could be diverted to the elimination of homeless dogs and a study of rabies and other diseases if the legislature would pass a law requiring it. Our law makers might encounter some difficulty in attempting such legislation, but it should be enacted.

The inoculation of rabbits with dogs' brains for making a diagnosis of rabies before the person bitten takes the preventive treatment is questionable because of the long and variable period of incubation. If one is bitten badly about the head or shoulders and there is reason to suspect the dog has rabies, the Pasteur treatment is indicated. It is not often that rabies exists and Negri bodies can not be found.

It is my understanding that the virus travels from the point of infection to the central nervous system through the nerves or the lymphatics immediately surrounding them. A number of cases have been reported where the saliva of a rabid dog had come in contact with abrasions, and where it appears that there were no recently injured nerves. If such cases are genuine, either the hypothesis of infection is wrong or the injured nerves were still permeable to the virus.

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COOPERATION BETWEEN INTERNIST AND SURGEON IN HANDLING BILIARY TRACT CONDITIONS*

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THE work of Graham, Mann and others for the past nine or ten years has brought new stimulus into the study and handling of hepatic conditions. It might be said that up until ten years ago about the only study of biliary tract cases was the history and physical findings and it was considered almost exclusively a surgical condition. Today with the extensive development of chemical methods, X-ray and laboratory studies we find internists keeping these cases on their service much longer and the case coming to the surgeon with the diagnosis already made. Such a tendency often leads the surgeon to operate soon after the case is transferred to his service and he has probably come into contact with the patient hardly enough to make a good estimate of the patient's symptoms compared with the risk of an operation. Therefore, at Clifton Springs we try to follow the plan of the surgeon and internist seeing the patient frequently, conferring on the data and coming to a joint conclusion regarding the treatment.

We make a distinction between the diagnosis of medical and surgical diseases of the biliary tract on account of the fact that certain disturbances of the gall bladder and ducts may be of such a nature that the mechanical interference which surgery implies may not be necessary. In such conditions, a course of treatments, or a regime, usually called medical, may be advisable which does not include the administration even of medicines, but covers simply care as to diet and as to certain principles of hygiene. This distinction between medical and surgical diseases cannot always readily be made but it is a necessary one.

The diagnosis of any disease, and its intelligent interpretation, depends largely upon the recognition of the progress of the pathology, as evidenced by the chronological order of the appearance of the symptoms and signs. In such diseases as malaria, typhoid fever and syphilis, on account of the specific etiological factor, the disease may be readily named, but named only, whereas in disease of the biliary tract, the specific diagnosis implies the extent of the invasion of the disease. As already stated, this determines whether the condition is to be approached from the medical or from the surgical standpoint.

The early symptoms of biliary tract disease may be most insidious, and apparently inconsequential, or they may be most fulminating and tragic.

History

Of the insidious symptoms the following are of importance.

1. *Gas*, or abdominal flatus. Now it is well known that gas is a normal content of the gastrointestinal tract; the same as chyme or chyle and feces are. The chemical and fermentive process of digestion cannot proceed without the formation of gas. It is also known that a patient may by a slight physical effort and a little mental aberration persuade himself or herself that there is an excess of gas in the stomach and bowels. Aerophagia is not uncommon among a certain class of patients. But gas is not the real condition of which the patient complains. The patient who complains of gas really complains of a group of symptoms which he naturally interprets as being caused by the presence of gas. These symptoms are pressure in any part of the abdomen or chest, demonstrable distension of the

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abdomen and frequently more or less pain. To accept the statement from the patient suffering from "gas on the stomach" without a purposeful analysis of the symptom complex implied is likely to lead to a wrong diagnosis because it may be the temporary effect of an unfortunate selection of food, or it may be the result of definite pathology.

2. *Pain.* This may be only a slight discomfort anywhere in the abdomen or chest, relieved by a glass of hot water, or it may be so severe as to require repeated hypodermics of morphine. It may also be definitely localized at the ninth cartilage of the right costal margin and referred to the right scapula, or to the precordia or elsewhere. The pain may come at any time in relation to meals, frequently occurring after midnight and with the evidence of a physical disturbance somewhere in the lower biliary tract. It may be caused by only a muscular spasm, or by an acute flare-up of a focus of infection, or it may be the result of the movement of a stone. The more severe the pain the more likely it is due to stone. The pain is reflected along the right costal margin sometimes to the right scapula. It may be referred to the precordia. Such an attack, be it mild or severe, usually affords an opportune time to obtain certain data which may be very important. That is to say it should be determined whether there is localized tenderness in the region of the gall bladder, an elevation of temperature, an increase in the white blood corpuscles, the appearance of bile as well as sugar in the urine, the color of the stools and the evidence of icterus. These observations should be made at once and repeated for several days after the attack.

3. The so-called *"bilious attacks"* of which the patient frequently complains, may be any condition from a sick headache to an acute pancreatitis and it should therefore, never be accepted without careful analyses. With these bilious attacks there is loss of appetite, nausea and sometimes vomiting. There may also be headache. The critical analysis of these three groups of symptoms, gas, pain and the so-called bilious attacks, may provide all the history available especially if the history of previous illnesses, such as certain infectious diseases, or certain digestive disturbances are included.

PHYSICAL EXAMINATION

A physical examination done at the time or immediately after an acute attack; usually gives more definite information than one done during the interval. In this examination the color of the skin and of the urine should be noted.

Chemists tell us there are no really reliable tests for bile in the urine. There is one bit of information, however, which can be easily obtained and has considerable significance and that is the yellow, or the bile stain, which may occasionally be found on the linen of the wearing apparel or of the bedding.

Tenderness over the gall bladder area is frequently found, especially if the patient is shallow-chested and has a scaphoid abdomen. Otherwise, and especially when the gall bladder is contracted and lies up close to the spinal column a badly diseased gall bladder and common duct may escape detection.

LABORATORY TESTS

Certain laboratory tests should be instituted every time the symptoms are suspicious of an acute exacerbation. These have already been mentioned, such as examination of the urine for bile, of the blood, for the state of the leucocytes and the color of the serum. The Van den Bergh test and the icteric index may give confirmatory evidence; so may also duodenal drainage and an X-ray series of the gastro-intestinal tract.

There has been an extensive development during recent years of chemical methods designed to show whether the functions of the liver and gall-bladder tract are normal. As yet, most, if not all, of these methods lack satisfactory experimental confirmation. In fact, when they have been investigated under conditions which seem to be adequate—in Mann's classic experiments on totally and partially dehepatized dogs—it has been shown that the interpretation of the results is very difficult indeed. Therefore it seems certain that the clinician should be conservative in his own interpretation of such abnormal chemical findings as are made in the study of cases of this kind. There is no doubt at all that small deviations from the accepted normal values should not be emphasized unless they are in harmony with the general symptoms of the patient.

Our own attention has been largely centered upon tests for so-called "latent jaundice" and upon the relationship between bilirubin and urobilin in the urine. The demonstration of latent jaundice—the condition in which the concentration of bile in the blood is greater than normal, but where changes in the color of the skin cannot be made out—has received much attention in recent literature. The methods which we have used in studying this condition are three: 1. The measurement of the amount of yellow pigment in the serum (the so-called "icteric index"); 2. The presence of some compound giving the diazo reaction (the Van den Bergh reaction); 3. The production of a blue-green pigment when the serum is treated with ferric chloride in the presence of trichloracetic acid (the "Fouchet test"). Of these only the last can be considered specific for bile pigments, and that one is not readily quantitated. We have, therefore, used the simplest, that is, the icteric index, as an approximate measure of the pigment present, and have used the others to determine whether the yellow so measured was or was not due to bile. There seems to be a fairly definite relationship between these tests upon which we will report later, and as a whole, we feel that this method has been fairly satisfactory. The interpretation of the findings, however, must be made conservatively, for among our chronic cases increases can be so frequently demonstrated that they must be due to various initial causes.

The second study upon which our attention has been centered is the relationship between bilirubin and urobilin in the urine. From every patient who enters the clinic at least one specimen of urine is obtained and these are tested for bile by the usual nitric acid method. This is a test for the pigment bilirubin, and when it gives positive results we then analyze the specimen for urobilin by the semi-quantitative method of Wallace and Diamond. In a very large proportion of the specimens so studied an increase in this latter pigment is demonstrated. This is interesting because McMaster has shown that urobilin is formed from bile pigment by the action of bacteria in the intestinal tract, and except for a few instances in which bacteria are present in the biliary tract in sufficient numbers to cause the change, is not formed in any other way. The logical conclusion from our results, therefore, is that in the greater part of our cases the presence of bile in the urine was not due to a partial or complete obstruction of the biliary tract, but to some other cause. This seems to confirm the conclusion reached from a study of the bile pigments in the blood, *i. e.*, that the interpretation of slight deviations from the normal circulation of bile pigments is not a simple matter.

Our experience with duodenal drainage as a diagnostic measure in suspected gall bladder and duct diseases has been somewhat varied.

X-Ray Studies

Our experience with the Graham test has been very satisfactory. Dr. C. Harvey Jewett, our Roentgenologist, in an analysis of one hundred cholecystographies, visualized the gall bladder in sixty-seven cases. In the cases which came to operation the conclusions arrived at were verified in 92.3 per cent of the cases. In this series of cases all of those which showed stones failed to visualize with the dye.

The oral method is followed in preference to the intravenous. The question of biliary tract disturbance can never be safely approached without having in mind certain other conditions which may be present in this region. Of these are particularly duodenal ulcer, pancreatic disease and stone or infection of the right urinary tract.

The diagnostic problem relating to biliary tract disease is comparatively easy. The suspicion of biliary tract disease may be entertained with the appearance of the mildest and earliest symptoms. If the physician is appreciative of the accumulative evidence which is furnished by history, physical examination and laboratory investigation, the fact of disease may be established. The real problem in diagnosis comes, however, when the course of treatment is to be decided upon. Text books give a clean cut differentiation, specifying when a case, if it ever has been medical, becomes surgical, as follows: (a) repeated attacks; (b) the presence of a distended gall bladder attended with fever; (c) obstruction of the common duct; (d) persistent ill health (Osler). The Text-book on Surgery may declare that biliary tract disease is surgical as soon as its presence is determined, but this does not answer the question as to when the individual case is to be operated. This question involves the risk of operation. The operative mortality in different clinics varies as the proper technique is developed and perfected, and as the surgeon is willing to take a certain risk. How can this risk be estimated? Only by the routine careful study of every case. In this study particular attention is given to the *heart*. Babcock, Reiseman and others have long ago called our attention to this. Not only should such methods of study as determine the degree of incapacity of the heart and circulation in general be instituted, but every effort should be made to re-establish a good compensation. A preliminary rest in bed, with careful diet and with digitalis, or other medication may be indicated.

The function of the *kidney* should be determined by well established and reliable tests. The choice of anaesthetics which is always a matter of concern, may depend largely upon the immediate functional capacity of the kidney. Preliminary dietetic, hydrotherapeutic and other measures may avert a catastrophy.

Studies which give information concerning carbohydrate metabolism are desirable. The close relation between the biliary tract and the pancreatic duct may cause a disturbance of carbohydrate metabolism so as to menace the operative risk to a large degree.

In a study of four hundred and thirty-one cases of biliary tract disease and of four hundred and fifty-five cases of diabetes mellitus, Transaction of Am. Gastro-Entero Ass. 1923 by Lichty and Woods, twenty-five patients were found to be suffering from both conditions. Diabetes mellitus as well as an increase of blood sugar, may and should receive such preliminary attention, through dietetic and other now well established lines of treatment, as to overcome this handicap.

The relation of the physician to the prospective operative biliary tract patient should be such as to develop a healthy optimism. These patients are inclined to be depressed to a degree that it may become a serious factor. The diagnostic study should include a consideration of this phase and a preliminary treatment should include measures to overcome it. The skill and ingenuity of the surgeon must be exercised to the full extent in these cases if the best results are to be obtained.

In an analysis of sixty-eight operations on the gall bladder and tracts in the past two years at Clifton Springs, there were six deaths, a mortality of a little less than 9 per cent. In this series there were sixty-three excisions of the gall bladder and five drainage cases. It has been our custom to drain the sub-acute cases. The cystic duct was drained with a catheter in some of the cases where the pancreas was enlarged. The pathological reports on the sixty-three cases of excision showed chronic inflammation in fifty-six cases. X-ray studies were made on fifty-six of these cases, but a cholocystography was done on only twelve of the fifty-six. In twenty of the cases flat plate and G. I. X-ray reports were negative for any pathology, but laboratory reports showed inflammation or stones.

THE POSSIBLE RELATIONSHIP BETWEEN CONVULSIONS IN EARLY LIFE AND EPILEPSY*

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OBSERVERS have long sought to determine as to the relationship, if any, between convulsions in infancy and early childhood, convulsionosis, with epilepsy, convulsive disorders, in the adolescent or adult. If we accept what many contend, that epilepsy is rarely hereditary, we might expect that many convulsions are due to some fundamental enduring disturbance of the individual occurring in early life. Predisposing or precipitating factors to be considered are neuropathic heredity, parental syphilis and alcoholism damaging germ plasm, fetal maldevelopment, birth or subsequent head trauma, encephalitis and meningitis from infections such as scarlet fever, measles, etc., or mechanically as in pertussis; long continued metabolic disturbances, such as rickets, endocrine disorders and psychogenic abnormalities.

What constitutes an epilepsy? On what can a reasonable prognosis be based? While certain theories are attractively plausible, still they are but theories and must long remain as such. Our knowledge of the actual biochemistry of the central nervous system, as well as other vital organs and tissues, is meagre. What do we know regarding life processes of essential nerve cells? It has been advanced that epilepsy may be the result of a primary neuronic degeneration.

To show opinions of seventy years ago, I quote from West[1], who mentions convulsions consequent to large loss of blood; that the brain in infancy is much more exposed to disorder than that of an adult, owing to the far wider variety of influences to which it is susceptible, and the frequency of convulsions in the young and the great variety of circumstances under which they occur, making it difficult to interpret their meaning. The cranium of the adult is a complete bony case and the firm substance of the brain affords a comparatively unyielding support to the vessels by which it is nourished. It is not so in infants and the same causes which expose the brain to be overfilled with blood render it possible to be drained of blood more completely than in the adult. Convulsions take place in infancy not as result of any disease but simply in consequence of this anatomical peculiarity. West says it would not be right to attribute convulsions that sometimes occur at commencement of eruptive fevers entirely to derangement of the cerebral circulation, for something is probably due to changes in the blood itself. "The period of teething, like that of puberty constitutes one of the great epochs of life where changes are going on in the whole organism." "Convulsions in early life are unusual after the completion of dentition and warrant more serious apprehension in children of three or four years old than in infants of a year or eighteen months." "There seems to be a decided relation between the liability to convulsions in early infancy and development of epilepsy in subsequent childhood." He mentions that alleged causes of fits are not always the real ones, and stresses nodding spasms and petit mal in childhood continuing into a later epilepsy, mentioning momentary vertigoes and attacks of apparently causeless alarm accompanied by incoherent talking. "The prospect of epileptic seizures ceasing at puberty is a very groundless one." "The severity of fits is of less importance in the prognosis of epilepsy than frequency of their occurrence. The oftener they occur, even in a mild form, the less is the prospect of their cessation."

Writers on dissimilar heredity in epilepsy give percentages varying from 1 to 87 per cent, differences so great as not to be satisfactorily explained except upon exceedingly incomplete data and including disturbances with little or no relation to nervous or mental disorders, thus much of what has been written regarding heredity in epilepsy and related conditions is without value from present day standards. Early writers discountenanced the admission of other nervous affections in ancestors as hereditary predisposing causes of epilepsy. In regard to similar heredity, some writers have made positive diagnoses of epilepsy in ancestors on very unsubstantial grounds. How can one be sure of such diagnoses when it is often difficult to make a diagnosis in the living, even under fairly close supervision? Such extravagant assertions make one question seriously the value of the findings recorded. Others contend that every convulsion in the human must be epileptic.

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The Mendelian laws are difficult to apply in the complex organism of the human family, especially in regard to disease. There has been a steady tendency in recent years to lay more stress on environmental factors as compared with hereditary influences.

Myerson[2] explains that the conception of heredity as a cause of epilepsy is gradually disappearing and that accurate clinical and biochemical studies show that the disorder is one of organic type.

Seguin[3] said: "Every spasm is not epileptic; its form, distribution and especially its evolution and association must be considered. He cautions against accepting coincidental factors as causative of the convulsion. After three years of age, look with doubt upon such alleged causative factors as gastro-intestinal disturbances, worms, etc.

In Binswanger's[4] opinion, convulsions in the first few weeks of life indicate life-incapability and later in infancy they are due to the physiological disposition to convulsions, owing to the incomplete development of the central nervous system. He believed infantile eclampsia may be the prelude as well as the disposing cause of epilepsy.

Echverria[5] mentions epilepsy as a name synonymous with convulsions, indiscriminately employed by ancient and modern medical writers to indicate definite spasmodic affections and that no other malady exhibiting a wider range in etiological conditions accounts for the confusing application of the term. He further states, there is scarcely a disease in which epileptiform convulsions might not occur. According to Russell Reynolds[6] "the immediate or approximate cause of convulsions is a change in the nutrition or interstitial processes of the nervous centers." In what essential does this explanation differ from that of our own time?

Watson Carter[7] mentioned "Not every person having epileptoid or epileptiform attacks could be called epileptic, that a convulsion is only a symptom and not even essential, that one cannot preclude the possibility of having to do in one of these cases with epilepsy beginning in early life, a question which can only be determined by the continuance of the convulsions."

It has been alleged that in families of epileptics a larger proportion of adult members of such families have had infantile convulsions than did the epileptics in such families. Examples of this, to me, rare occurrence are the following:

A. P., ninth in family of ten children, eight boys and two girls. All natural born, breast fed and strong. During early infancy every boy except the patient had convulsions. The first and sixth, girls, never had convulsions. Of the boys, the second died at 21 years of pneumonia, he had convulsions at irregular intervals during his life, married and has one healthy child. The third had convulsions in infancy, then a remission until eight years when a single convulsion occurred, with no recurrence. The fourth had convulsions in infancy, and a single convulsion at four years, without recurrence. The fifth had no convulsions after six months of age. The seventh, a twin, had convulsions during dentition without recurrence later. The eighth, the other twin, had convulsions in infancy and at the age of eleven months had a severe convulsion complicating a fatal broncho-pneumonia. The ninth is the patient. The tenth had convulsions in infancy without recurrence. The patient was the only one of the sons free from seizures during infancy. At five years he fell several feet, suffering a deep scalp wound, no apparent ill results immediately following. Two years later, while pulling weeds in a field on a farm he, without apparent warning, had a severe seizure, such having recurred at irregular intervals. Discharged from Colony in 1920 as recovered, no seizures having occurred in over two years.

H. N., aged 32 years. Born at full term, natural delivery, weighed twelve pounds. Began to walk at 13 months, showed evidences of rickets. When 3½ years old, fell down stairs and was unconscious for nine hours. A month later had a convulsion. At about seven years of age attacks ceased for nine months. Then his oldest brother dipped him in the river, scaring the child. The following day he had a convulsion. All of the patient's brothers and sisters had convulsions in early life, six dying before one year of age. The three surviving, besides the patient, are adults and have had no recurrence of convulsions since infancy. Two are married and have healthy children.

It has also been stated that epileptics no more frequently give a history of convulsions in infancy than do non-epileptics.

Riddoch[8] states that convulsions in infancy are about twice as frequent in families with hereditary history of epilepsy as compared with those without such history, and that in epileptic families there are a greater proportion of epileptics among the first-born than those born later. In 2,036 consecutive cases at Craig Colony the order of birth was as follows: (231 cases being entirely unknown)

ORDER OF BIRTH OF EPILEPTIC CASES

Numbers across top of table indicate number in family, and at side indicate number in line of birth.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	20
1st	122	106	85	69	46	32	22	14	9	6	8	2	2					1	
2nd ...		85	67	72	54	34	20	8	15	1	1		3						
3rd ...			65	63	54	34	16	16	12	6	5			1	1				
4th				71	36	34	19	14	13	6	5	2	1	4					
5th					55	20	16	20	8	7	4	3	4						
6th						25	17	16	12	5	8	2	2	1	1	1			
7th							31	21	10	7	4	2	2		1				
8th								18	11	3	4	1	1						
9th									22	2	2	2	1				1	1	
10th ...										14	4	2	1		1				
11th ...											5	3	2			1			
12th ...												6	1						
13th ...													5	1		1			
14th ...														1					
15th ...															1				
16th ...																			
17th ...																			
18th ...																			
20th ...																			1
Unknown		10	13	10	18	18	10	13	7	3	3	0	1	2					2

It is difficult to ascertain as to how many in the general population are first born, second born, etc., so as to permit of comparison.

Wilson[9] says "Convulsions can be brought about experimentally in animals anatomically and physiologically normal, i. e., a fit may be a discharge of accumulated nervous energy in a healthy neuro-mechanism. Some fits are clearly cortical, some at obviously lower levels. We do not know the conditions under which the accumulated nervous energy is discharged.

Stewart[10] believes there is an infinite variety of causes of epilepsy acting in persons otherwise normal and healthy.

Peterman[11] states convulsions in new-born infants are probably organic; those occurring during the first few months of life are usually due to congenital malformation of brain or skull; those between eight months and three years are functional, due to spasmophilia.

Sharpe and Ulricj[12] report that 15 to 20% of normal children show blood in the cerebrospinal fluid, indicating hemorrhage, usually subarachnoid. They believe that many other causes of brain injury do not show blood in the spinal fluid, especially if lesions are intracerebral. This might explain a good deal of sporadic feeble-mindedness and epilepsy.

In a study of 1,673 cases of still births and neonatal deaths, Holland and Clayton[13] show that 25% are due to intracranial injuries, and also that 33% of all cases of version showed intracranial lesions. 465 of the total deaths were due to the complications of labor. These findings suggest that in a large number of infants who survive, considerable damage may have ocurred to the brain, insufficient to cause death, but enough to interfere with normal development and to result in neurological symptoms, many of which would be convulsions, perhaps continuing into epilepsy.

Several are of the opinion that various paralyses, convulsions, etc., observed in young infants are not to be attributed to meningeal hemorrhage at birth but to various pathological processes of intrauterine origin.

Many call attention to the fact that serious brain injuries occur not only in pathological labors and those artificially terminated, but in many so-called normal labors.

Schwartz and Frink [14] refer to microscopic bleeding in the brain in premature babies and that asphyxia is of secondary importance as cause of such hemorrhage.

Collin[15] says the well-known tendency to convulsive states in infancy is due to the structure of the brain, to disturbance of calcium concentration, and to insufficient development of suprarenals and parathyroids. Convulsions due to these factors may be considered as benign as distinguished from the manifestations of epilepsy. Their symptomatology can be explained without participation of the cortex. They are clonic and bilateral without stertor, frequently precipitated by fever, not coming on during sleep, and disappearing as the child grows older. On the other hand, convulsions starting unilaterally, tonic in character, producing asphyxia, apyretic and occurring in sleep or immediately after waking are epileptic in nature.

For some unknown reason, certain individuals present recurring epileptiform attacks, and other individuals with apparent defects in makeup which should provoke such attacks, are free from them. We know that in adults, perhaps because of a fully developed nervous system, one observes convulsions recurring in only a small number of individuals who sustain serious head trauma, e.g., soldiers.

Encephalitis complicating any infectious disease or the result of direct infection of the central nervous system, not sufficiently severe to cause death, may result later in mental impairment, convulsions, etc. Recurring oedema of the brain as a cause of convulsions has long been recognized. The appearance of the brain in a case dying from a severe influenzal infection suggests the possibility of what might occur in a patient recovering from such a severe infection.

Apparently as result of certain changes in the body chemistry associated with acute infectious diseases, epilepsy may ensue or if already existing may be aggravated, or on the other hand, such infection may cause abeyance of such seizures for a considerable period of years, or even in a few cases permanently. Some allege acidosis, others alkalosis may cause convulsions.

Again writers have suggested that some convulsions in early life are due to anaphylaxis or a similar process set up by ingested cows milk, white of egg, oatmeal or other common foods of young children.

Hempelmann[16] states acute throat infections, such as tonsilitis, have more frequently caused convulsions than gastro-intestinal upset. He mentions the well-known fact that once the child reaches the age when febrile convulsions are ordinarily less common, it takes an unusual occurrence to precipitate them, e.g., onset of meningitis, severe scarlet fever, toxic pneumonia, etc. In 250 cases of spastic paralyses, he found the percentage of epileptics very small.

I have seen diphtheria, tonsilitis and mumps cause marked nervous reactions. What virulent poisons are manufactured within the body by germs and carried to the brain to act as irritants provoking convulsive phenomena? High fever, although present, may not be the cause of the seizure.

Hunt[17] considers epilepsy as an inhibitory disorder of the brain and that children are so prone to convulsive attacks largely because the inhibitory mechanism is so underdeveloped. He also mentions that acute infections often show a tendency to become localized in this or that portion of the nervous system, the explanation for which is far from satisfactory in the present state of our knowledge. It would appear as if strains of some organisms may have special selective affinities for certain tissues of the nervous system, thus producing special clinical types or reactions. Theoretically, exhaustion or biological inferiority of parts of the nervous system may render it more susceptible to the deleterious influences of toxic products.

Dandy[18] concludes that the motor cortex once injured, the threshold at which convulsions appear is lowered, and that injuries to other parts of the brain may lower such threshold to a lesser degree. He holds that the motor cortex is alone responsible for the occurrence of clonic convulsions, although the attack may not originate there.

Syz[19] states the well known fact that asphyxia, especially when produced by interruption of the blood supply to the brain, produces convulsions. Lack of oxygen or material increase of carbon dioxide causes hyperexcitability of the nervous system and convulsions.

Heuyer[20] believes convulsions in infants are to be considered as identical to epilepsy in adults, being produced by the same factors. He recommends prolonged anti-syphilitic treatment even when clinical and sero logical examinations are negative. It would seem as if this author does not accept the general opinion that convulsive reactions are in but a limited number of cases due to congenital syphilis.

Vogt[21] believes hereditary syphilis may cause thinning of cerebral blood vessels, making them more easily ruptured and interfere with tissue development, thus more easily producing epilepsy and mental defect.

Patrick and Levy[22] in referring to convulsions and their recurrence, say that the presence of such convulsions, per se, multiplies the individual's ordinary chances of epilepsy by at least five, and that there is no definite interval of safety beyond which epilepsy will not occur.

Bassoe[23] says, "It is surprising how little real definite information is to be had when one thinks of the many millions of epileptics that have lived and the tens of millions of children having convulsions, yet statements are based on general impressions and not on available data."

The point has often been brought out that the contact of the obstetrician and pediatrician with convulsive cases is comparatively short, so that their knowledge of subsequent events in the life of the child is limited. On the other hand, neurologists often have difficulty in determining, in the adult, what actually happened during early childhood.

Many cases of headache, alleged fainting spells, and certain psychic and temperamental trends are closely related to epilepsy. Rosanoff believes that epileptoid tendencies are widely spread in the population, being perhaps almost universal but latent under ordinary conditions.

Clark[24] believes convulsions in children and epilepsy in later life have no essential relationship, that only in predetermined cases are convulsions in infancy of any moment, that epilepsy is due to an essential makeup, entailing poor adaptation to reality, the handicapped individual deteriorating through failures and disappointments, so that he is turned back on himself, and that there may be organic reasons for such reaction.

Wiersma[25] says that fundamental nature of epilepsy is inherent failure to adequately assimilate impressions from the outside world, and holds that convulsions and mental characteristics associated with epilepsy are secondary and dependent phenomena. He concludes that absent-mindedness represents a transition between the normal and the epileptic.

To seek viewpoints on the subject in hand, I addressed over eighty pediatricians and neurologists, obtaining replies from but 50%. I mentioned that it was generally accepted that convulsions are common in young children during acute gastro-intestinal disorders and at the onset of acute infectious diseases, and it was also rather generally conceded that infants sustaining severe head injury during birth, if they survive, will ordinarily be epileptic or defective, or both. Summarizing the replies, I can but say that the information obtained does not make more exact our knowledge on the subject. A number replied that they had no definite findings to offer, one well-known pediatrician saying that convulsions were so common they were not recorded. Others replied that convulsions in early life were uncommon, while some asserted that as high as 25 to 50% af all infants and young children present convulsions.

The commonly obtained history of trauma in infancy is difficult to evaluate as to its bearing, if any, on a later epilepsy. It is often not especially severe, nor does it differ in any respect from trauma received by practically all young children.

Replies from a considerable number were to the effect there was little or no definite relationship between convulsions in early life and epilepsy, while on the contrary, a few replied that the majority of epileptics give a history of convulsions in childhood and that 25% or more having convulsions in infancy have recurrence later.

In a series of 1,000 patients at Craig Colony, 32.6% had convulsions in early life, of these 238, or 23.8%, had convulsions first appear in infancy or early childhood, before four years, and continue into later life. 88 cases, or 8.8%, had convulsions in infancy with remission; 20 for less than five years; 28, from five to ten years; 24, ten to fifteen years; 14, fifteen years and over. In a number of cases the supposed exciting cause for the recurrence is not mentioned. In others, various factors are alleged; e.g., school attendance, puberty, intercurrent illness, indigestion, etc. In these same cases the alleged exciting cause for the first convulsion was: no assigned cause, 44; dentition, 22; at or immediately after birth, 10; infectious diseases, 4; fall, 3; worms, 2; indigestion, 1. In a number where dentition is mentioned, it no doubt was only concomitant.

How many children, potential epileptics, die before the diagnosis is made, or before reaching an age when a diagnosis might be possible?

In another series of 1,000 cases, 31.6% had convulsions in early life, of these 200, or 20%, had convulsions continue uninterruptedly into later life; 116, or 11.5%, had remissions for varying periods: 8, four years or less; 39 five to ten years; 40, ten to fifteen years; 29, fifteen years and over. The assigned cause of the original convulsions in this series was as follows: 13, none; dentition, 63; indigestion, 11; birth or directly after, 10; fall, 8; infectious diseases, 3; worms, 3; fright, 1.

Schlapp[26] found in 1365 epileptics that 29% had convulsions during infancy. Thom reports 515 of patients at the Massachusetts Hospital for Epileptics as having the first convulsion prior to the fourth year.

Some convulsions in children are due to acute nephritis. Any condition causing increased intracranial tension may result in convulsive phenomena. Excessive water intake may produce convulsions. It is conceded that mechanisms involved in the production of convulsions are in a considerable number circulatory disturbances within the skull, either vascular spasms, venous congestion or increased blood pressure from whatever cause. As to just how some of these conditions are brought about is not known.

Scott and Usher[27] report 21 cases of infantile tetany in all of whom generalized convulsions were present.

Grover F. Power[28] states that the nervous complications of pertussis generally attributed to asphyxia, cerebral edema or congestion, cerebral hemorrhage, encephalitis or meningitis, the resulting outstanding symptom of all of which is convulsions, are due to tetany and not to the anatomic injuries aforesaid.

In the literature in recent years, there have been many references to convulsive attacks after hyper-ventilation of the lungs. Does prolonged crying in young children produce an effect similar to hyperpnoea and so cause convulsions? What about efforts at respiration made by the infant in the latter stages of protracted labor?

Starkey[29] believes that spasms of the unstriped muscles are responsible for circulatory changes involving basal ganglia, which in turn, account for epilepsy and similar disorders.

Epstein[30] states "spasms in children have as their etiology a physiological and not an anatomical pathology. The relation of spasms in children to the neuroses in later life seem to be in many cases a close one."

Holt[31] and others have never seen convulsions which could fairly be attributed to dentition, although such may occur in rachitic children. They further state that worms as a cause of epilepsy is extremely rare. No matter what the apparent or relating cause of convulsions during infancy, there is no doubt but what constant repetition may establish the convulsive habit. As Kerley[32] well states, "the second seizure is more easily produced than the first, and the third more easily than the second," that convulsions should never be lightly regarded as they may be serious in their immediate as well as their remote possibilities. One convulsion may produce cerebral hemorrhage.

Several observers believe that in a number of infants showing convulsions immediately after birth many had eclamptic or uraemic mothers.

Rickets is assigned as a predisposing cause for many convulsions in early life, but spasmophilia is credited as the cause of the major proportion of convulsions occurring under three years. A spasmophiliac may also later prove to be epileptic, a long period of observation being necessary to differentiate. As a point of differential diagnosis, reference is made to the seasonal occurrence of spasmophilia and that in the latter there is also evidence of disturbance of nutrition as contrasted with epilepsy.

Thom[33] believes that "if infantile convulsions associated with rickets, gastro-intestinal upset, acute infections, etc., were looked upon more seriously and greater effort made to prevent their occurrence during early life, much epilepsy and mental deficiency might be prevented." He quotes a study by the Children's Bureau of New Haven, Conn., showing the incidence of convulsions among 1,101 untreated cases of rickets as 4.7%, while in 350 treated cases convulsions occurred in 1.5%.

While teething as an explanation of spasms is too often a cloak for ignorance, still dentition is physiological and it is not incapable of disturbing health, according to Still[34]. He also mentions that it is not necessarily the use of forceps that causes brain damage, but the condition necessitating the use of forceps, as being likely to result in more or less asphyxia and consequent brain damage. He refers to unexplained attacks of giddiness as being so to speak, the fringe of epilepsy. He describes so-called "inward convulsions" in which the child screams, becomes livid about the mouth, perhaps turns its eyes upward, at the same time thumbs to the palms. In another case there is momentary twitching, perhaps extremely fine, of the forearm or leg, or perhaps only the fingers, with in turn loss of consciousness. In another there may be a sudden start of the whole body. These symptoms, seemingly trivial, are just as truly convulsions as major attacks, standing in the same relation to such as petit mal does to major epilepsy. He believes a mere bout of crying may end in spasmodic closure of the glottis with cyanosis, unconsciousness and a general convulsion. Fully 50% of permanent infantile hemiplegia begin with convulsions although perhaps only a very small proportion of these have been caused by the convulsion. Still believes that out of the enormous number of infants who have convulsions an extremely small proportion become epileptic, at any rate before the age of puberty. He stresses the time of the first, also perhaps the second, dentition and puberty as being critical periods for children of neuropathic tendencies.

Muskens[35] believes occasional seizures occurring in childhood, e.g., at the onset of febrile disorders, are defensive in nature, being the method of discharge of a toxin injurious to the organism. He believes that too little attention is given to the significance of myoclonic movements found in young normal children, e.g., if a young child is asleep a sudden noise may produce glottic spasm. He does not consider the holding of breath by emotional children as a sign analogous to the occurrence of a convulsion. In a series of 2,000 epileptics observed by Muskens, 12.6% gave a history of convulsive phenomena occurring in infancy.

Types of petit mal, or mild seizures, often overlooked, are staring, making peculiar grimaces, sounds, etc., enuresis especially during day time, various jerks, hesitancies in speech, movements, responses, etc., faints, complaints of peculiar sensation in abdomen or head, etc., vertigo, petechial hemorrhage of the skin, eyes, screaming spells, flashes, sudden dilation of the pupils, saying or doing something odd, child seems to lose himself, swallowing movements, drooling, fumbling, fussing, all the foregoing stereotyped in the particular individual.

Watch out for the so-called masked epilepsy, e.g., sudden transitory loss of speech, sudden dreaminess, sleepiness, giddiness, alleged fainting attacks, etc.

The alleged excess of cases of left-handedness in families of epileptics is not generally accepted.

In 7,000 admissions to the Craig Colony, the age at onset in 28% was before five years of age. In 1,500 admissions of all ages, 12% gave a history of cerebropathies complicating infections, and 8% of trauma at birth or shortly thereafter.

Patrick and Levy remind us of the uncertainty as to what constitutes epilepsy, polymorphism of the disorder and the fact that the diagnosis is ordinarily largely made from statements of the patient and others. They mention thirty conditions to be differentiated from epilepsy.

As examples of typical histories of those under discussion, I would cite the following:

K. K., aged 31 years. Father living and in good health, temperate in habits. Mother died at 52 years, cause unknown. Said to have been very quick tempered, otherwise no history in family of nervous or mental disorders. Patient born at full term, short labor, instrumental delivery. Weighed ten pounds at birth, said to have a wound on side of head from instruments. No prenatal influences mentioned. Had convulsions immediately following birth, but was not paralyzed. Nursed by mother. Dentition began at 8 months. No unusual symptoms. Walked at 15 months and talked at 2 years. Began school at 6 years and reached second year high school at 13 years. Had measles and whooping cough at unknown ages. First epileptic seizure alleged to have occurred at 13 years, during sleep, the second seizure occurring an hour later.

C. W., aged 28 years. Father excessively alcoholic. Mother's oldest sister had convulsions, perhaps epileptic, died at 36 years. Mother's brother insane. One of fraternity died at 18 years of convulsions. Mother had fainting spells about 2 years before patient was born. Patient's birth instrumental, duration of labor three days. Was unusually large child if weight given is accurate, 11 pounds. Said to have been a blue baby. Shortly after birth patient had fainting spells, cried a great deal until 3 months of age, was always excitable and childish in his manner. Began school at 5 years and reached 6th grade at 11 years. Had typhoid fever at 20 years, during convalescence from which he had a severe convulsion; another occurring in 3 days.

O. O., aged 11 years. Paternal grandfather died at 50 years of cerebral hemorrhage. Parents of patient living and well. During year previous to birth of patient mother had fears of various kinds. Patient's birth and early infancy negative. Nursed by mother. Dentition began at six months. Walked at 18 months. Considerable delay in talking, apparently slow to develop. Convulsions first appeared at 18 months, attributed to intestinal irritation and worms. Seizures continued.

L. B., aged 12 years. Father living and in good health, aged 50 years. Mother is living, aged 45 years, said to be in "weak and run down condition." Parents were second cousins. Paternal grandfather died at 55 years from unknown cause. Grandmother died at 70 years from unknown cause. Maternal grandfather is living, aged 70 years, grandmother is living, aged 60 years. One sister died at 4 years, of epilepsy. All others are living. Birth was premature, being two weeks before the expected time. Mother's condition was very weak at the time, being exhausted from frequent previous births. Delivery was natural, baby weighed 12 pounds, was considered strong. Patient not injured in any manner during delivery. Said to have had convulsions immediately after birth, accompanied by high fever. No paralysis noted. Was fed artificially and was not subject to indigestion or prolonged spells of crying. Teething began at 1 year, said to have had violent convulsions at this time. Walked and talked at 2 years. Experienced no difficulty in learning either. Said that his mind developed naturally during infancy and early childhood. First attended school at 6 years, reaching fifth grade at 11 years. No history of injury that might have a bearing on his epilepsy. Had measles at unknown age. Onset of epilepsy is given at 8 years, said to have been brought about by fright.

D. F., aged 22 years. Father living, aged 52 years, in good health. Mother died at 48 years of endocarditis and chronic embolism. Father's father and mother both living, aged 75 and 73 respectively. Mother's father and mother both died of pneumonia, aged 67 and 52 respectively. Patient second in line of birth of 5 girls, of whom 1 girl died at 2 months of marasmus. Mother had no miscarriages. A first cousin had dementia praecox. Born at full term, natural delivery, weighed 6½ pounds at birth and was strong. No adverse prenatal influences given. Nursed by mother. Had convulsions when 5 months old. Dentition began at 6 months. Began to walk and talk at 14 months. First attended school at 6 years, and reached second year high school, at 15 years. Had measles at 4 years. Alleged onset of epilepsy at 12 years. Puberty at 15 years.

J. C., aged 18 years. Patient first of six children, three boys and three girls. One sister had a convulsion at 2½ years, none since and is now 9 years old. One brother had 1 convulsion at 2 years, none since, and is now 6 years old. Otherwise the family history is negative as to nervous and mental diseases. Patient did not have rickets. First attended school at 4½ years and made good progress, graduating from grammar school at 13 years, and then attending continuation school for 2 years. Has received no accident or injury that might be of etiological importance. Had measles and whooping cough at 7 years and diphtheria at 13 years, the latter disease being very severe and complicated by nephritis. One month following this illness, he had first attack of epilepsy, which was extremely severe.

CONCLUSIONS

There is, then, wide difference of opinion as to the significance of convulsions occurring during infancy and early childhood, some maintaining such reactions are of only passing moment, others insisting they may portend a later epilepsy. As in other situations in the fields of diagnosis and prognosis, one must be cautious in expressing a definite or final opinion.

Many hold that all convulsive attacks, especially occurring singly and during infancy, without apparent adequate cause, are essentially epileptic, their continuance in after life depending on predisposition and treatment. Even in a previously healthy infant with good heredity a convulsion from any cause is a serious symptom as it may be complicated by hemorrhage of the brain, permanent damage ensue, and convulsions recur. The first convulsion itself may not be epileptic but may thus cause an epilepsy.

The child who has convulsive attacks, be they so-called "worm fits," "teething fits," or what not, may have these disappear for a period, but the convulsive tendency has been established and simply remains to be again brought to light at a later period.

The forming of the convulsive habit may be by methods similar to forming any habit, the nervous system responding more easily to certain stimuli

Be extremely careful in pronouncing obscure nervous symptoms as of no consequence, especially if recurrent within comparatively short intervals. Such children should be closely observed over an extended period, the general care given being the same as if epilepsy had been definitely diagnosed.

Petit mal is overlooked oft times, being called "peculiar spells." If present with convulsions, epilepsy must be considered most seriously.

Unless there is a family history of epilepsy or of definite brain injury at birth or a subsequent encephalitis, be cautious in making a diagnosis of epilepsy in an otherwise normal young child who has a few convulsions. Many children who might be expected to have epilepsy do not have it. One writer truly cautions "Avoid casting the stigma of epilepsy on a child."

As epileptiform reactions occur in so many disorders the diagnosis of epilepsy should only be made by exclusion after thorough study and observation of the particular individual. Two convulsive disorders may be concomitant, e.g., epilepsy and hysteria. Remember it is the recurrence of seizures over an extended period that constitutes what we call epilepsy. Any person may at some time of life have some sort of an epileptiform reaction. In fact, some writers say we are all epileptics. When one considers the complicated and intricate structure of the entire nervous system, as well as the circulatory, digestive and other vital systems with their inter-relationship, one is surprised that there are not more reactions epileptiform in nature. The brain itself may be normal, but its functional response be perverted by toxins of various sorts and from numerous sources.

Compare sleep starts with myoclonic jerks, absent-mindedness and day dreams with petit mal, and one appreciates the lack of sharp definition between normal and perverted function of the living human mechanism. Consider the psychic processes and their effect on function of the systems before mentioned.

Time will not permit describing narcolepsy, pyknolepsy and other rarer disorders resembling epilepsy. Epilepsy can be diagnosed with more reasonable certainty at an early age if there is an evident organic basis present, e.g., cerebral palsy, mental impairment resulting from encephalitis associated with acute infectious diseases, etc. Epilepsy, however, is not a species of mental defect, although such may also be present.

Any alleged increase in the number of epileptics in a community is probably more apparent than real, statistics being so incomplete that they must be cautiously accepted and remembering the interpretation of the term epilepsy and what it includes differs widely.

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PIGEON HOLE DERMATOLOGY*

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A PATIENT with dermatitis herpetiformis consults a specialist, who mentally lists the alleged causes of the disease—general infection, focal infection, a metabolic disturbance, misbehavior of the ductless glands, anaphylaxis. Blood cultures and blood counts are made, the teeth are subjected to X-ray examination, the tonsils and sinuses are investigated, the urine and blood are chemically analyzed both quantitatively and qualitatively, sensitization tests are performed, the basal metabolism is determined. Nothing abnormal is found. But the patient has dermatitis herpetiformis. The gastric contents and feces are examined. No clue is furnished. Roentgenographs of the chest and abdomen are ordered. The explanation remains elusive. Root abscesses of two molars are discovered. The offenders are extracted. The root abscesses have automatically vanished; not so the dermatosis. This story might be duplicated as to pemphigus, psoriasis, exfoliative dermatitis, prurigo, some cases of eczema.

Hebra himself, were he among us today, could as little cope with the situation as the greenest tyro in a skin clinic. He would share our chagrin, our sense of limitation. We among dermatologists who are no longer very young, and not yet old, still hope that before the curtain descends upon our view of the dermatologic—shall I say tragedy, or merely comedy—the plot will in part have revealed itself. We look to our younger colleagues to engender for their own eyes a clearer stage than we shall ever behold.

May a few reflections be here recorded, born of the experiences and disappointments of a score of years devoted to dermatology? May a tentative outline be sketched of what may carry the riddles of today somewhat nearer a solution? If the writer more closely approximated the ideal dermatologist to be pictured below, perhaps he might himself attempt to achieve some of the solutions, instead of merely draughting a scenario. A scenario, indeed, that may have no real soundness, no creditable force. Such as it is, this paper is dedicated to those who may accord it a sympathetic ear, and to those who, a generation hence, will not too ungenerously ridicule the fancies and hopes of a writer of today.

During the 19th century dermatology was largely an exercise in optical acumen. It is true that in France many dermatoses were ascribed to "dartres" and in England to the gouty diathesis, but this was merely speculative medicine and about as sound as the humoral pathology of the ancients. Essentially there was no dermatology during the past century except clinical dermatology, until the researches of Virchow, Pasteur, Koch and Von Behring began to influence all contemporaneous medicine. Up to that time dermatologists did with dermatoses what little boys do with butterflies—they caught them and pinned them to the wall. They established a habit of catching and pinning, and this habit, like the theme of a fugue, appears to haunt with its insistence all our thought. The catching and pinning was a necessary episode in the development of dermatology; as necessary, no doubt, as the alphabet or the rules of rhetoric or harmony and counterpoint in their various spheres. The catching and pinning constitute clinical dermatology.

Clinical dermatology in its proper place is not to be belittled. It is the essence of dermatology. The naming of dermatoses, the attempt to classify them, to arrange their relationships, is the soul of the science. But when the dockets, the pigeon holes are apotheosized it becomes wholesome to court the joy and risk of apostasy as to a ritual that obscures it own object. The spirit reigning over medicine or any branch of medicine (and this, curious as it may seem to some deans and faculties, includes dermatology), is understanding diseases as processes and not as evil spirits to be exorcised. As soon as a disease is understood, its designation ceases to be a handicap. Thus today it does little harm to speak of lupus vulgaris. This imbecile designation cannot conceal the fact that it is tuberculosis of the skin. The equally idiotic term lupus erythematosus persists. The bias that since one lupus is tuberculous the other must in some way also be, shows how names shunt thought. Lupus erythematosus may be tuberculous, but suppose it should prove not to be! So far there is little evidence that it is. A generation ago Unna suggested the name ulerythema centrifugum for this condition: a perfect example of perfect nomenclature. Who on earth can explain the reluctance of dermatologists to accept it? A peep into a pigeon hole might disclose the answer.

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A peep into other pigeon holes might uncover why terms like erythroderma are preferred to dermatitis exfoliativa; prurigo to papular urticaria; herpes zoster to zoster. Many more could be added. The reason is that the terms are ready labels. They do not convey the idea of processes to the mind, but of pictures, and when one dermatologist utters a word from this caballa, another can readily conjure up the portrait. For example, Boeck readapted the term sarcoid for the disease named after him. In a posthumously published paper he retracted the term and suggested "miliary lupoid." Faulty enough, but better than the vacuous original designation; yet his last suggestion has been ignored. Probably it has not even been widely heard of. This should not arouse great astonishment, for in our country it is not even understood how to pronounce Boeck's name, although the correct pronunciation would fall easier to American lips than the way we say it when we think we say it correctly. This is a bagatelle, but of a certain significance, for when we ignore an author's attitude toward the naming of a disease he has described, when we ignore even predigested thought, how can we hope that we shall think for ourselves about other diseases?

It is not intended to give the impression that this type of slovenliness of thought is peculiarly American. Aside from the work of Jadassohn, Bruno Bloch, perhaps some of Kreibich's, Rost's recent textbook and some of the investigations on tinea by Plato, Kauffmann-Wolff and, again, Bruno Bloch, and as a classifier, Sabourand, the bulk of continental dermatology in the last generation has been more of the clinical variety, the name calling type, even than ours. In England Norman Walker, and in the United States Schamberg, Engman, Pusey, the late James Johnston and Frederick Harris, Stokes, Weidman, Wile, Jeffrey Michael, have all engaged themselves largely with dermatology in its wider aspects, both as to causation and treatment. Several other names might be added to this list and their omission implies no disrespect, but those enumerated suffice as examples. These writers, or triple their number, are only a handful among American dermatologists, as a visit to almost any of our great dispensaries or to any of our great clinical gatherings will reveal.

Let us spend a moment at a clinic. We all have done so as participants. This is how one looked to an outsider whose impressions are restated in the third person. A patient, apparently sworn to silence, sat opposite an equally inarticulate physician—a sphinx with an eagle's eye. After an appreciable period the sphinx turned oracle and unburdened himself of the name of a skin disease. Thereupon the currents of inductive questioning were turned on, and a history crystallized itself about, and supported the diagnosis. Science now stalked in. A Wassermann test and biopsy were ordained, and rhubarb and soda mixture, calamine lotion or the Roentgen ray invoked. The ritual seemed complete. To sum up: the diagnosis preceded the history, preceded the report of laboratory investigations, and treatment was based upon a name. If this is logical, it is logic in reverse speed. This is only a newer way of saying that the cart was put before the horse. I can see no reason why modern dermatology should not be based on principles of thought that were known to Euclid, unless it be that the sport of snap diagnosis has become a habit. Pigeon hole dermatology!

The same fallacy inspires clinical sessions. Diseases are named. Papules and pustules rather than principles and problems burgeon into oratory. An exchange of verbal amenities is the order of the day—verbal amenities about the still unknown. For example, if a border-line case is shown that may be mycosis or parapsoriasis, the chairman must use his gavel in an almost corporeal onslaught on the speakers to end the discussion in time for dinner or the train or a golf match. If a case of leukemia is presented with complete supporting data, someone arises to congratulate the presenter on his complete presentation. It seems as though it were always possible to fulminate more about what is unknown than to elaborate and reason about the known. Speculative cases produce torrents of words. Studied cases produce silence, or at the best, a grudging compliment. Pigeon hole dermatology!

One more short excursion before we return to the main path of this paper. Now and then when discussion does transcend the level of nomenclature and wings the rare ether of etiology, we hear this sort of thing: "Herpes zoster is due to focal infection, at least insofar as my experience goes." What Dr. So-and-So's experience is, where the focal infection is, what the pathogenic parasites are, are not mentioned. When he is asked how a self-limited disease, usually conferring permanent immunity, can be due to a focal infection, he has no rebutal but he does not retract. And focal infection has been blamed for erythema multiforme exudativium, for zoster, for simple herpes, for lupus erythematosus, pemphigus, for eczema. I desist. Why name all the dermatoses there are? Dr. Thus-and-So states that pityriasis rosea is, in his experience, strikingly often associated with, and hence due to, bad tonsils, or diseased tonsils; probably he said diseased tonsils, for who would wantonly call a defenseless tonsil "bad?" He does not mention in what ratio he sees such cases in people with affected and unaffected tonsils, or whether this differs from the ratio of such tonsils in people without pityriasis rosea, or whether a similar state of tonsillar evil exists with reference to other common dermatoses, or whether, indeed, having no tonsils at all safeguards people from pityriasis rosea. As a matter of fact tonsils have been caught in flagrante in all the diseases above mentioned and in many not mentioned, particularly in relation to focal infections, and held culpable with about the same degree of logic. Thus, zoster—focal infection; pityriasis rosea—tonsils; urticaria—milk, eggs, strawberries or shellfish (bivalves and crustacea, the crustacea not bearing shells, and none being fish); eczema, psoriasis—uric acid; seborrhoea—carbohydrate chemical disturbances; acne—sweets and constipation (an easy evasion of real thought upon the disturbances of puberty). Why go on? Thin ice etiology! Thin ice etiologists! Pigeon hole dermatology!

It is easy to be a destructive critic. It is unfair to be one without trying to offer at least the egg of a phoenix to incubate in or from the ashes. Indeed it is not the purpose of this paper primarily to make sport either of dermatology or dermatologists, but to touch upon what is known and unknown, to admit our pecularities and to point out broadly what avenues of thought dermatology may seek to insure its own progress. The foregoing ridicule, were I one to sentimentalize, might easily be replaced by adulation. It might have been said that dermatology, beginning as a science of nomenclature, elevated itself little by little through the influence of microscopic pathology, parasitolgy, biochemistry, and finally by the subtler application of all phases of all of these. This would be absolutely true, but each stage of advancement has been hampered by inertia, and always that curious inertia of nomenclature. Despite our progress we are still hobbled by Hebra and Kaposi, by the greatest clinicians, perhaps, of all times, but certainly today a retarding influence. A retarding influence, save insofar as it is axiomatic that a dermatologist must know his Hebra and Kaposi, his Lorry, Willan, Bateman, Calcott and Tilbury Fox, Cazenave, and a host of others, precisely as, to restate the comparison, a composer must know his harmony and counterpoint, his orchestration. Nor should such attainments be hailed as a virtue, but rather assumed as a foregone conclusion, much as we expect a well-bred person to understand the difference between a knife and a fork without dilating upon his discernment. I mention this in passing because there appears to be a growing mania in certain quarters of the United States to ignore a basic fact. No work on dermatology can be accepted unless it may be assumed to be sponsored by people who have mastered the elements and fundamentals of their field.

On this foundation no superstructure, however lofty, of cognate knowledge and attainment will be topheavy. The dermatologist will be the better for understanding all the laboratory, clinical and therapeutic aspects of his subject. The degree and quality of his mastery will depend entirely upon his own talents, training, temperament and intellectual integrity—particularly integrity. This is axiomatic. The laws and customs of man cannot alter this. Science has its roots in ethics, together with religion and all other human spirituality. So much for the nature of dermatology and those professing it.

To return to the opening paragraph of this paper—a case of dermatitis herpetiformis constitutes an intellectual impasse. The nature of the disease is unknown. The diagnostic procedures enumerated have been followed time and again by dozens of dermatologists in scores of cases, and always lead nowhere; but no new efforts are made. Dermatitis herpetiformis is a chronic exudative inflammation characterized by phases of activity and partial remission. Of such a process what forces can determine the behavior? A relapsing infection, a cyclic metabolic disturbance, either biochemical or anaphylactic, a reexposure to given external factors not unlike those we know about in dermatitis venenata. Does this furnish no clue to future study? I think it does. Almost identical reasoning would apply to all the skin inflammations of unrevealed causation.

For a moment let us pause to narrow the issue. We may exclude from consideration congenital anomalies, neoplasms and frank infections, whether due to animal or vegetable parasites. They are excluded not because our knowledge of their nature is complete, but because it is sufficient to serve as a sound foundation for future building. What remains are the inflammations and dystrophies. Among the former must be included eczema or dermatitis, urticaria, erythema multiforme, psoriasis, parapsoriasis, seborrhea, the lichens, lupus erythematosus, pemphigus, dermatitis herpetiformis and the exfoliative dermatoses. Among the latter must be included the atrophies, the hypertrophies, conditions like sclerema of the new born, possibly Darier's disease, and the xanthomas. Besides these two groups the lymphodermas and the telangiectases should be mentioned. Of all of them, the most important are the conditions in the first group because they are the commonest dermatoses and hence those of greatest human significance. Indeed, the remainder of this paper will be confined, for the most part, to allusions to these commoner dermatoses. It would be futile to dilate on the rarer conditions until the day dawns when all medical problems may be encountered with a richer offensive of method.

It is this very restriction in methods of study that is the nucleus of our difficulties, and it is precisely our smug willingness to let common dermatoses go with an appellation that prevents our overcoming that restriction. The vicious circle is established. What we know of the common dermatoses is the following: We fairly well understand their microscopic anatomy. It is clear that a large number of cases of eczema are due to cutaneous hypersusceptibility. It is apparent that many cases of urticaria are anaphylactic phenomena. It is equally apparent that in many instances exudative erythemas are either urticarial or toxic. Arsenic causes a type of exfoliative dermatitis. This may provide an insight into the probable mechanism underlying the other exfoliative dermatitis types, but the ultimate explanation is still remote. Lichen planus is amenable to arsenic and mercury, but arsenic may also cause an eruption resembling acute disseminated lichen planus. A disconcerting paradox! For the rest, our knowledge is nil. Studies in nitrogen and carbohydrate metabolism, analyses of the feces, blood cultures, other parasitologic studies have advanced our knowledge but little. Xanthomatous lesions are associated now with disturbed fat metabolism, now with diabetes, now with neither. Dermatitis aestivalis is apparently associated with hematoporphorynemia. This is all we know. The question is, where do we go from here?

It is clear that all disease is due to poisoning. The poisons may originate from parasites, from a disturbance of any of the manifold complex and interdependent mechanisms related to or controlling normal processes within the body. Any disturbance of any of these unbalances the whole machine. The delicately adjusted timing of production, utilization, destruction and elimination is upset. A substance beneficial in proper tempo and place becomes a poison. Those catalyzers, the ferments and enzymes, function in a manner out of joint. The prospect is overwhelming. The knowledge to be extracted from Nature, jealously guarding her secrets, is stupendous. And yet Christian vanquished Apollyon and David overthrew Goliath. Puny as man is he can overcome this Titan. Nor is there any limit to the achievement possible to the concerted effort of mankind.

The beginning of the affray must be simple. The first move must be a changed attitude toward dermatology. As long as naming diseases remains so satisfying the automatic bias will persist that they are best encountered by exorcism. Until psoriasis is regarded not as an enemy to be faced with a rigid stance, but as a process to be courted, analyzed, cozened, human ingenuity will unfold itself to meet the higher, subtler demand. Psoriasis must be due to a parasite or an intracorporeally engendered poison. Has it been investigated by means of the most approved technic of anaerobic culture? Has it been studied as to filtrable virus, to ultramicroscopic agents? Is it not curious that psoriasis has, together with nearly all other dermatoses, peculiarities of localization? Does not this mean a definite, mutual affinity between the pathogenic agent and the consistently affected sites? This may be biochemical or endocrine, and an explanation may possibly be found in live staining. It may be a matter of osmosis at certain cutaneous areas. We older dermatologists may imagine these things, but are unequipped to lock horns with the problem. Some younger man of inspiration now getting his training, if he would only fortify himself in the more abstruse phases of science, will be accorded the revelation; but not if he is content merely to call psoriasis psoriasis when he sees it, and to hold up his hands helplessly when he beholds it. A thousand inspired failures, perhaps, and then success for someone, and a new impetus for others to carry on.

And the same might be said of all the other diseases mentioned. Seborrhea often resembles psoriasis but situates itself differently and is prone to vesiculation. It has all the earmarks of an infection in a peculiarly predisposed host. Is it enough to look for the genii of this malady in the absurd bottle bacillus that is obviously only a saprophyte? There are no thoroughly rounded out parasitologists in dermatology who are also sound dermatologists, except Weidman of Philadelphia. I wonder how he would approach studying Seborrhea. It is not my object to refer to people by name, but I cannot withhold this encomium, for Weidman is an outstanding figure both as to training and imagination in his combined field. The response of lichen planus to parasiticides internally administered, its exanthematous character, its lowering retreat to certain favorite localities which become its obstinate strongholds, suggest a less than remote kinship to diseases caused by protozoa. Cannot some young Hercules now girding his scientific loins make the solution to this problem the first of his labors?

Of all baffling dermatoses, however, the urticarias and eczema remain the worst because they are so common. Anaphylaxis gives the clue to the urticarias, or to some of them; but must the offending proteins always be considered as having their sources in food? Cannot poisons, working like anaphylactic toxins perhaps arise in the body itself? Duke has pointed out a very subtle type of urticaria. So has Klander. Their's is not pigeonhole dermatology. Their vision has transcended strawberries and clams and that greatest and best advertised hypothesis, focal infections which explain something but probably not one per cent. of that for which they are inculpated. Nor is scratching the skin the last word to be said as to methods of studying susceptibility, nor finding streptococcus viridans at the apex of an infected tooth the last word in clearing up all etiologic enigmas. Urticaria and eczema have this in common: more influences external and internal can produce the syndromes so named than produce any other cutaneous syndrome.

Eczema, until within the last half generation, has been our greatest, because it is our commonest bugbear. All of the pigeonhole absurdities have been most conspicuous here. An untenable distinction between eczema and dermatitis venenata has been widely championed. Two processes identical in appearance, behavior, course, microscopic anatomy have been differentiated, because in one group the cause could be determined, and in one it could not. It is necessary only to point out that primrose dermatitis acts just like chronic eczema if exposure to primroses is not avoided. To the logical this should be sufficient. The whole story need not here be threshed out again. Today we know that what is called eczema can be caused by all sorts of chemical agents affecting the skin from without, by fungi, at times by bacteria, or that it can be the result of metabolic disturbances. The writings of Norman Walker, Fordyce, Jadassohn, Johnston, Frederick Harris, Engman and, preeminently, Bruno Bloch bear ample testimony to this fact. The further work to be done would parallel that already outlined in connection with psoriasis.

Pemphigus acts like a chronic infectious disease. Its probable solution will lie in parasitologic studies, but it must be added that the story of pellagra might apply to pemphigus. Would it perhaps be as wise to approach this mystery with some such idea in mind while, pending a solution, we continue treating the disease with however little prospect of cure, along accepted plans. The mere fact that cures are recorded under intensive arsenic administration supports the hypothesis of infection. Photosensitization plays a role in dermatitis aestivalis and lupus erythematosus. In the former hematoporphorinemia has been determined. May there not likewise be such a factor in erythematous lupus? Is there not such a factor in pellagra? Should we not look for grouped interoperating causes in disease, a toxin and a precipitant like the actinic rays?

Enough has been suggested to indicate a possibly fruitful attitude toward the problems of cutaneous medicine. I am satisfied that our approach thus far has been too limited. To find hyperuricacidemia in a majority of this, that or the other group of dermatoses, or hyperglycemia, means rather an association of two morbid phenomena than a casual relation between them. They key must be a single, consistent and specific finding. This has never yet been discovered, save in infections. Again let us turn to the dilemma indicated in the opening paragraph. What is gained in studying a case if we go through all the manipulations we can think of, when we know that none of the possible positive findings are peculiar to the disease. It is specific relationships we are seeking, definite morbid alterations, invariable abnormal associations.

The surface area of the skin is just under two square yards. The skin is the physical, physiological and chemical barrier between all that it contains within itself as an envelope, and the outer world. Its functions are manifold and complex. It is capable of morbid manifestations peculiar to itself and morbid manifestations reflecting internal disturbances. Hence it follows that there are two groups of skin diseases, the purely local and the internal. It is important to differentiate between the two. Time, enlightenment and imaginative study will enable us to. Routine studies, beginning with the bow-sprit and ending with the rudder are, in themselves, pigeonhole activities. They are comprehensive but undirected, diffuse and hence aimless. They may unearth a truth, but only by chance. In a case of impetigo it is more sagacious to look for pediculosis capitis than to determine the patient's basal metabolism. I have seen a patient with scabies nearly starved to death by a physician who found the blood uric acid coefficient too high.

The essentials to such progress are first an astute and accurate clinical appraisal of dermatoses. Next, all known methods of analysis must be essayed if no easy explanation of the case comes to hand. Third, a few unthought of procedures must be thought of. An ideal dermatologist would have the eyes of Hebra, the depth of Virchow, the ingenuity of Claude Bernard, the imagination of Pasteur, the common sense and intellectual integrity of Osler and the courage of Jesse Lazear. There is no such man. But all dermatologists cooperating and mastering their own narrow field, and at least one other related field would ultimately rear the science we all dream of. Is this dream idle? Leonardo di Vinci dreamed of airplanes four centuries before there were any. He understood principles of modern geology over three hundred years before Lyell was born. Let us dream these dreams. Human progress is merely dreams of one era come true in a later one.

Man is a self-contained microcosm in which occur such of the universal physical and clinical phenomena as are required for life. Among these requirements is the important one of organic self repair. Thus the living being probably posesses closely related mechanisms for maintaining and restoring health. These must cooperate with all other body functions according to general laws governing the forces and matter involved. The various systems of organs could not contribute their respective parts unless the finer control of the sympathetic and autonomic nervous systems functioned, unless the various enzymes, ferments and endocrine substances smoothly played their subtle roles. To what extent physico-chemistry is involved we can scarcely surmise. Nor can we yet surmise when interference with osmosis, dialysis, diffusion within our tissues may be the inconspicuous start of a serious if not fatal malady. It is in terms of a growing comprehension of remote activities in fields not yet brought closely enough to medicine, that the ultimate nature of disease must be sought. The investigator of to-morrow must be a physicist and chemist as well as a physician. The first dermatologist who is such a physician will be the first to solve some of the problems of dermatology. He may not be a practitioner, but even practitioners will then have to be better trained than now to keep pace with the growth of actual knowledge. They will probably look back on contemporary dermatology with that amusement, and perhaps with some of that awe with which we regard precocious children, but they may wonder why we so long stayed children.

It remains a constant source of astonishment to me that the skin, the greatest organ available for study while its owner continues alive, is the one which has interested fewest physicians. Moreover it is the one about which, to state it conservatively, no more is known than about internal organs. Internal organs are not readily studied until after death, or if during life, without extensive manipulation and preparation. A few simple modifications in our approach to this would initiate a change, and time would make the change complete. The first consideration must be a more open attitude on the part of dermatologists toward their specialty. The second is a question of the nature of the dermatologist's general scientific, general medical and special training.

The attitude of dermatologists requires broadening. The physiology of the skin needs a complete review from the standpoint of the relation of the sympathetic and autonomic nervous system to the cutaneous vessels, to the sebaceous and sweat gland function and to the normal growth balance of the epidermis, papillary body and corium. The chemistry of the skin secretions and excretions must be studied anew. Anatomic and physiological differences of the different skin areas must be worked out. Perhaps better methods of live staining will further this. The chemical balance between the skin and kidneys must be re-examined. A new normal and morbid histology of the skin must be written in terms of live staining, the hydrogen ion content, and with the idea in mind of the skin's being, among other things, a membrane in which phenomena of dialysis and diffusion require investigation. Next, dermatologists, while at first retaining the old nomenclature, must try to reclassify cutaneous pictures less with the dictionary in mind, than with the findings garnered from the new methods of analysis recorded above.

Basically, at the start, the new dermatologist must remain an old guard observer with a keen eye to the future. If this be not emphasized a hiatus will develop separating the newer work from what it is its object to clarify, and confusion will arise. The fetish of diagnosis by inspection, together with all other forms of pigeon hole dermatology, must be abandoned. The concerted effort of all dermatologists of today should be directed toward the training of younger dermatologists to outstrip their teachers both in clinical accuracy, scientific versatility and unstilted imagination. Clinics for the treatment of cutaneous diseases should be better equipped for study and less hurriedly conducted. Hospitals should have bigger wards for patients with skin diseases and more sympathetic laboratories. At society meetings more emphasis should be placed on analysis of than on naming cutaneous maladies. Speakers stating their impressions and views in discussion should be rigorously held to substantiation by fact and experiment. Fewer cases and papers should be shown and read, but more ample exchange of ideas should be cultivated. Editors of special journals should have these principles in mind in accepting contributions. This is only an incomplete sketch of what might be a beginning but it would more than start us aright if the embodied suggestions proved feasible.

The dermatologist's training should begin as any other physician's. Premedical requirements should include chemistry, physics, biology and botany. The principles of organic, colloid and physiological chemistry should be included. It may appear gratituitous to others, but to me it seems important that premedical courses in higher mathematics and logic should be demanded in order that physicians may acquire the mode of deductive reasoning. The medical school should base its pedagogy on these principles and equip its students rather for constructive thinking than to shine in examinations for internship. The shining would ensue automatically after such preparatory polishing. The special training should include clinical and all associated aspects of dermatology, and no hospital or medical school should regard a man as a dermatologist unless he has satisfied these requirements. Humanity will rise to any intellectual level set by its leaders, and it is within the power of institutions to pitch their standards as high as they will without fear that individuals will be lacking to meet them. The supply will rise to the demand if the demand be sincere and the leadership competent.

Two groups of dermatologists will be engendered, those who lean more to research, and those who lean more to practice. But the two must understand each other and no such distinctions may be allowed as "scientific" and "practical" dermatologists, for the latter also are expected to be scientific. It is not that the two represent different arts, but that each masters a different application of the same art. Those with a taste for research are practitioners of social medicine. They labor for humanity in the abstract. Those with a taste for practice labor for particularized humanity. The basic requirements for each are identical. That economic factors may not lose research workers for society their remuneration should be raised to a level compatable with rearing their families in reasonably easy circumstances. This is no exorbitant demand if the community wants to guarantee itself that progress which its physical welfare demands. A high degree of excellence must in some way be paid for and a high degree of excellence in dermatology is with what this paper concerns itself.

The end approaches. Lest this paper seem patronizing may I state that it is mainly inspired by sensitiveness on my part to my own limitations. Premedical and medical training in my student days lacked those elements, the need of which my later experiences made clear to me. The wonder remains that all of us who perforce suffered similar intellectual disabilities have blundered forward as far as we have. We have infinite capacity for better things, and we have all been infinitely handicapped. That this should not remain so is my hope. There may be nothing of practical value in the suggestions herein embodied, but tearing them to pieces may lead more astute thinkers to sounder conclusions and plans for a better, more fruitful training for future dermatologists. May the weight of tradition be lifted from the shoulders of the oncomers! May they study the past to escape it and achieve a more liberal future! May that future be one in which the pigeon hole concepts, biases and rituals that cloud today give way to a clearer, more luminous dermatology for to-morrow!

EDITORIAL

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THE IDENTIFICATION OF AUTHORS

The signature on a paper offered for publication in a medical journal is as important as that on a bank check or note. The editor must be assured of the personal resources and responsibilities of an author.

The normal identification of an author and his resources is the endorsement of the officers of a medical society. But the JOURNAL often receives papers which bear no identification of the professional standing of the author. The writers of these papers must be identified before this JOURNAL can accept the statements of the unknown authors.

The usual procedure of an author is that he shall read his paper before a recognized medical society, and shall present evidence of its favorable reception by the members of the society.

DOCTOR LEONARD WOOD

General Leonard Wood, physician, military leader, statesman, died on August 7th, aged 67 years. Inheritance had a place in the determination of his abilities and temperament, for his father was a physician and officer in the Civil War. Graduating from the Harvard Medical School in 1884, he entered the Army as Assistant Surgeon January 6th, 1886, and at once showed military abilities and activities which at that time were considered incompatible and unnecessary for an army doctor, but which today are demanded of a medical officer. For conspicuous service in the strenuous pursuit and capture of Geronimo, Dr. Wood received the Congressional Medal. When the achievement of Dr. Wood is considered in the light of today's organization and authority of the Medical Department of the Army, it would appear that one of the essential elements in the success of that Indian campaign was the medical procedure which Dr. Wood put into practice for the conservation of the health and strength of the soldiers.

Dr. Wood was a good practising physician—his appointment as White House physician by President Cleveland and his retention in that post by President McKinley showed that; but he also had a superlative degree of prophetic insight, and constructive leadership, which led him to anticipate the recognition of the Medical Department of the Army which came only with the World War. The Medical Department of a modern army demands the highest qualities of military leadership, and if General Wood were starting his army career today he would find abundant opportunities for the exercise of all his knowledge and skill if he confined his activities to the medical service only.

The solution of medical problems entered into the success of General Wood to a far greater extent than is usually realized. As Military Governor of Cuba from September 24, 1898, to May 20, 1902, General Wood gave his active support to those investigations which resulted in the discovery of the mosquito of yellow fever and to the suppression of the disease on the Island when only military power could enforce preventive measures which then seemed both ridiculous and burdensome.

General Wood was the father of the system of military preparedness under which the majority of the American officers, including 30,000 medical officers, were trained during the World War, and over 1,500 Medical Reserve Officers are undergoing military training this summer.

The Medical Field Service School at Carlisle, Pa., that is described on page 857 of the August 1st issue of this Journal, is the direct outgrowth of General Wood's preparedness program.

The success of General Wood's administration as Governor General of the Philippines, in which he was engaged at the time of his death, was greatly helped by his promotion of the eradication of leprosy and the establishment of a treatment station on the Island of Culion about two hundred miles south of Manila. (See this Journal May 15, 1927, page 566.) One of the last acts of General Wood was an appeal for a two million dollar endowment in aid of the station.

General Wood was the incarnation of the broad principles of the practice of public health and civic medicine.

THE NEW ENGLAND MEDICAL COUNCIL

The Medical Societies of the New England States are proposing to follow the example of those of New York, New Jersey and Pennsylvania, and to establish a series of conferences among the representatives of the several state societies. While the Tri-State Conference of the Middle States is informal, and is not governed by rules or by-laws, that of the New England States is planned along more formal lines. A description of the plan is set forth in the Annual Report of Dr. B. L. Bryant, the Secretary of the Maine Medical Association, which appears in the May issue of the Journal of the Maine State Society.

The plan seems to have originated with the New Hampshire State Society, and has been endorsed by New Hampshire, Massachusetts, Rhode Island and Maine. Its proposed constitution provides for five representatives from each state, and for two meetings each year.

It is also proposed that the six New England States join in the publication of one medical journal. Proposals to that effect have hitherto met with little response, and the result has been that Maine, Massachusetts, and Rhode Island are the only New England States that have their own medical journals. The union of all six states in the publication of the Boston Medical and Surgical Journal has met strong opposition because when the control of the Journal was given over to the Massachusetts Medical Society, the stipulation was that the present name should be continued until the Journal should have completed its 100th year, which will be in 1928. But negotiations are now under way that the Journal shall become the official publication of each State Society and the cost be borne pro rata according to the membership of the several organizations.

THE INHALATION OF BABY POWDERS

It is well known that pneumonia and death may result from the inhalation of toilet powders used on babies. Fatal cases have been reported with such frequency that surely the manufacturers of the powders must know the dangers of the inhalation of their products. Yet the manufacturers of a well-known brand of dusting powder fill a large outdoor bill board with the picture of a lusty infant lying on its back and holding aloft a can from which a stream of the powder is pouring over the delighted infant's face. If this actually occurred, the baby would probably be dead of inhalation pneumonia within twenty-four hours.

A placard often seen in street cars shows a baby toying with a can of toilet powder whose name appears in prominent letters. While this advertisement does not show the powder pouring from the can upon the baby's face, yet the menace is still there.

Pediatrists go to great lengths to warn mothers against allowing their infants to play with the box of toilet powder. It seems strange that manufacturers disregard those warnings and show attractive pictures of babies innocently committing suicide.

LOOKING BACKWARD.

THIS JOURNAL TWENTY YEARS AGO

On Doctors' Sons.—This Journal for August, 1907, contains the following comment on the sons of physicians who adopt their father's profession—Editor's Note.

Doctors' sons pretty generally make good doctors; that is, if they decide to study medicine and be doctors at all, they succeed. When you hear a physician say that the practice of medicine is a dog's life, and that if he had it to do over again he would never study medicine, that patients are ungrateful and give him little thanks or pay, you may be pretty sure that his son will not study medicine; and if perchance he should, he is terribly handicapped by a lot of bad medical traditions. The unsuccessful doctor does not let his son study medicine. The doctor's son who does study medicine is quite invariably the son of the man who was successful enough to find joy in his work, and who could wish his son nothing better than to enter into the calling which had meant so much to him. And the boy saw in his father's life something that excited his admiration to emulate and covet. As a matter of fact and observation the son of the really successful doctor commonly does study medicine; and I can name a number of such men who attained to even greater success than their fathers.

That the doctor's son takes his cue from his father, and that the father should be careful of what he teaches his son, even inadvertently, is illustrated by a homely example. The one man in this country, who is devoting himself assiduously to calumniating and misrepresenting medicine, is the son of a doctor—a well-meaning man, still engaged in mildly practising his profession. This good old doctor is a frequent contributor and a professed admirer of one of the most disreputable medical periodicals charged up to the account of American medical literature—let us be accurate and say *the* most disreputable. That means that the son gets an impression of medicine from the literature which he finds on his father's library table. I presume that the son judges that this so-called medical journal represents the medical profession because it says it does and because it contains the pictures of many men of good and high standing who intersperse its advertising pages with the products of their agile pens, innocently and little knowing of the damage they are doing.

MEDICAL PROGRESS

Agranulocytic Angina.—In a review of the literature on agranulocytic angina George J. Kastlin collected 43 cases to which he adds two typical cases. These correspond closely to the description of the condition of Schultz, in 1922, who states that the disease is characterized by a severe stomatitis and unusual blood picture occurring in women past middle age with negative past histories. It is manifested by sudden rise of temperature, sore throat, dysphagia, chills, and malaise, which progress to severe toxemia and prostration. The symptomatology is not constant, though stomatitis is always present. There may be regional adenopathy and enlargement of the liver and spleen. Jaundice is common while petechial hemorrhages are rare. The blood change of neutrophilic leucopenia with relative lymphocytosis is always seen. These blood changes are the result of the primary action of an unknown etiological agent on the bone-marrow, which at autopsy is grossly red in color, while on microscopic examination it is cell-poor with almost complete absence of granulocytic cells. Because of the peculiar damage to the granulocytic blood cells associated with stomatitis, Schultz gave it the name of agranulocytic angina. The ulcerative sites in the mouth and at various locations arise secondary to the blood changes, due to decrease in the body resistance to infection. The ulcerative sites show a lack of the cellular response of inflammation. This same lack of cellular response is seen in the pneumonic process which usually leads to death. The disease does not always terminate fatally. On recovery the blood picture returns to normal. One attack of the disease does not protect against a second attack. Differential diagnosis in agranulocytic angina presents points similar to the reactions to specific poisons, lymphocytic leucemia, alymphatic leucemia, and cases of sepsis with leucopenia. It does not fall within the classification of these conditions but with the evidence at hand it cannot be called a clinical entity. In Kastlin's cases there was no definite jaundice. Cultures of the mouth were negative for the diphtheria bacillus and positive for the hemolytic streptococcus. They also revealed spirochetes, one of the Vincent type, the other a bifidus-like organism. The blood pictures all presented leucopenia, decrease in the polymorphonuclear leucocytes, a relative lymphocytosis, and increase in the endothelial cells. The bone-marrow showed the changes above described. One of the cases was serologically syphilitic while the other revealed a tuberculous process in one kidney. —*American Journal of the Medical Sciences*, June, 1927, clxxiii, 6.

Tuberculous Endocarditis.—A. Pic and L. Morenas of the Medical Clinic of the University of Lyon write at length of this little known condition which has nothing in common with actual tuberculosis of the endocardium, this last being particularly rare and of little clinical importance. The affection in question is known mostly to the pathologist who finds, at autopsies on the tuberculous, sclerous cicatrices of the endocardium, whether parietal or valvular; but it is now and then detected by the clinician, despite the latent character. More apt to occur in the child, it sometimes is masked as ordinary rheumatic endocarditis with its sequelæ in adult life. It may occur as a vegetating endocarditis and shows much polymorphism as to the lesions encountered at autopsy, with nothing characteristic of its tuberculous nature excepting the discovery of Koch's bacilli in certain of the lesions. The diagnosis is wholly inferential *in vivo* and we may suspect the disease in young tuberculous subjects under certain circumstances and in acute rheumatic affections in which salicylic acid is inert. In rare cases the presence of Koch's bacillus in the blood seems able to set up both the acute and slow types of sepsis, and here septic endocarditis is mimicked. Unfortunately the authors do not cite a single case, much less a series of illustrative cases, so that it is difficult to visualize the disease. However, they have in press a volume on "Tuberculosis and the Cardiovascular Apparatus" of which their article is apparently a condensation, which will no doubt supply this omission.—*Journal de Médecine de Lyon*, April 20, 1927.

Treatment of Intermittent Limp.—Kurt Mendel at the request of the editor of the *Klinische Wochenschrift* prepared a paper on the causation and treatment of intermittent claudication which is to be found in the issue of May 21, 1927. He sums up the causal treatment as being directed against lues, nicotinism, alcoholism, arteriosclerosis, gout, and diabetes, if one or more of these conditions is in evidence. Irrespective of causal indications we may make use of iodine, strychnine, arsenic, quinine, and various diuretics and heart stimulants (strophanthus, digitalis, diuretin, theobromine) while the most important group among the drugs is the vasodilator, especially sodium nitrite. Drugs may also be required for the severe pain. The entire range of physical resources has been recommended although harm as well as good may result from some of these, and Schlesinger warns against any form of heat. Under operative treatment the Leriche method of periarterial sympathectomy is recommended in difficult cases, but too much must not be expected of it, and the benefit which sometimes follows may be due in part at least to some of the other remedies employed. It is singular to find no mention of the Lorenz-Doppler method of phenolization of the peripheral sympathetic which has been under trial in Vienna for the past two years or more. The author wrote a monographic study of this disease in 1922 and his bibliography shows that he has hardly touched on the literature of the past two years. The allied subject of thromboangeitis obliterans is barely mentioned.

The Appendix Reflex.—A. B. Mitchell, writing in the *British Medical Journal,* May 28, 1927, No. 3464, states that the appendix reflex, giving rise to pyloric spasm, followed by hyperacidity and symptoms suggestive of gastric or duodenal ulcer, is now well recognized. He reports a series of cases which indicate that in certain subjects, with unstable nervous system, a diseased appendix may be the exciting cause of symptoms of an entirely different character. In three of these cases the symptoms were those of migraine, in two cyclic vomiting with acidosis, and in two the patients suffered with epileptic attacks. In two of the patients complaining of migraine there was absolutely no history suggestive of appendix or gall-bladder trouble; in the third case there was glycosuria associated with indigestion. The cases of cyclic vomiting with acidosis occurred in children aged respectively 10 and 6 years. In commenting on these cases Mitchell says that appendicitis in children is much more common than is generally recognized. He believes the majority of cases of so-called colic are primarily appendical, and that a large proportion of the cases of so-called chronic appendix which are met with during abdominal operations have originated in early childhood. In the "nervous child" such an appendix may give rise to a variety of reflex symptoms, even in the absence of any local sign. In the patients with epileptic attacks there was a history of indigestion and in one instance of abdominal pain. All of these patients were entirely relieved of their complaints following appendectomy. This group of patients, who may be classed with the subjects of hysteria, neurasthenia, and certain cases of mental disease, have one feature in common—that is, a nervous system which is liable to be upset by some slight reflex stimulus. A thorough examination for an abdominal focus should be carried out in every instance. A misplaced uterus or a movable kidney will often afford an explanation, but a diseased appendix will prove to be the exciting cause much more frequently than has hitherto been suspected. Mitchell wishes it clearly understood, however, that he is not proposing that every sufferer from migraine, cyclic vomiting, or epilepsy should be submitted to an appendectomy.

Endocrine Treatment of Psoriasis.—A. Buschke and W. Curth of the Rudolf Virchow Hospital, Berlin, state that many attempts have been made to base a treatment of psoriasis on presumptive anomalies of metabolism, and in this connection they recall the favorable results from giving thyroid substance in certain cases. Buschke has recently seen a brilliant result of this kind. After radiation of the thyroid had been shown to have little value the thymus was rayed instead with results so promising that the method was soon extensively tested, but on the whole with disappointing consequences. Remarkable isolated cases of cure with thymus tablets or injection of thymus preparations have been reported. The authors have *x*-rayed the skull in many cases of psoriasis in order to determine the presence or absence of anomalies of the sella and irrespective of the state of the latter occasional good results have been seen from the exhibition of extracts of hypophysis. So far as known no other of the hormone producing structures has yielded any benefit in psoriasis. It can only be said at present that in certain cases in which there is presumably a deficit in some internal secretion positive results can be obtained by supplying the deficiency. The favorable action of the hypophysis extract is most likely associated with a double deficiency of the hypophysis and ovary. In the treatment of a given case every effort should be made to locate any possible hormonic deficiency, for in some of the more striking cases recorded accessory measures were not required. For the present we must still cling to the old remedies—chrysarobin, tar, arsenic internally, baths, and local röntgenization.—*Deutsche medizinische Wochenschrift,* May 6, 1927.

Pilocarpine in Postoperative Urine Retention.—H. M. Hinrichsen refers to the cases of this nature in which there is fear of infecting the bladder with the catheter. As a rule one or two passages of this instrument is sufficient to dispose of post-operative retention. It is of course true that urotropin and one of the more recently introduced urinary antiseptics may be given before operation. The idea of intravenous injection of pilocarpine is borrowed from Lampert's study of the action of the drug on animals, but itself may be regarded as an additional surgical intervention which might have as unfavorable results as the catheter. A French author, unnamed, seems to have made use of pilocarpine subcutaneously, but Hinrichsen mentions no clinicians who have anticipated himself. He has used the resource thus far in 38 post-operative cases and obtained 100 per cent of good and safe results. But little reference is made to the dose which appears to have been 0.01 gm. Collateral symptoms of heat, lacrymation, hyperidrosis, etc., were not burdensome to the patients. The author would not make use of this resource until the fundus of the bladder has risen three fingers' breadths above the symphysis. A second injection was required in only a few cases. The author's cautious attitude is based on the statement found in some of the systematic works on pharmacodynamics that collapse occasionally develops after the intravenous injection of pilocarpine. Lampert in his recent study denies that bad effects develop but the author would proceed with great caution in nephritic and arteriosclerotic patients.—*Deutsche medizinische Wochenschrift*, May 29, 1927.

A New Record in Consecutive Laparotomies.—Margarete Liebers believes that she may have beaten or at least equalled the record for the greatest number of laparotomies performed on a single patient. She is able to report no less than seven such interventions. These multiple operations are necessitated in cases of erroneous diagnosis, as of appendicitis in cases of tabetic crises; in repeated cesarean sections; in simulation of ileus, etc., to get into hospitals (the author quotes such an experience in a young man of 20 who had already been operated on five times), and in the insane who swallow foreign bodies. Her own case was of the latter type, in a man of 24, constitutionally inferior and psychopathic, a criminal, a morphinist, and with suicidal tendencies. The motives in swallowing nails, etc., were mixed —to avoid punishment, to obtain morphine, etc. Of the seven operations six were performed in succession in the same prison during a period of two years while the seventh followed in the psychiatric asylum after transference. The operations were not simple gastrotomies, for the swallowed objects reached the small or large intestine before furnishing immediate indications to operate. Fistulous communication with the small intestine was left after three of the laparotomies. Owing to the large number of adhesions which formed as a result of the foreign bodies or operation, intervention became more and more difficult, as neither the small nor large intestine could be mobilized.—*Muenchener medizinische Wochenschrift*, May 13, 1927.

The Treatment of Ankle and Foot Sprains.—Frank Thomas Woodbury, writing in *Physical Therapeutics*, June, 1927, xlv, 6, calls attention to the revolutionary changes in the treatment of uncomplicated sprains brought about by the advent of physical therapeutics. Though the advantages of these changes have been established by those using physical agents for about thirty years, the general bulk of the profession have been contented with the methods of their fathers. The employment of physical agents in the treatment of sprains of the ankles and feet is chiefly a sequence of diathermy—the static wave or static brush effluve from a wooden point or a deKraft electrode, positively grounded, to be followed where there is much muscular spasm by static sparks from a negatively grounded ball electrode, and finally *full use of the joint at once without any supporting dressing.* In cases with much hemorrhage the static wave is given alone or the brush effluve may be substituted with equally good effect, the treatment lasting not less than twenty minutes and possibly an hour. The use of any sort of a support has been found unnecessary with this method, as the relief is immediate and the patient can use the joint at once, which is an aid in the recovery. Adhesive strapping is a deterrent of the free use of the joint and should be used only in the case of a very heavy person or of a very severe sprain, and then only for the first twenty-four hours. Nothing will so soon produce ankylosis as immobilization by strapping, splints, or casts. Even the customary advice to rest the joint defeats the free motion which produces a natural form of tissue massage which removes exudates and restores circulation. The treatment of old sprains when ankylosis has already occurred is a very different matter.

Temporary Strabismus Following Vaccination.—C. Saloz and E. Frommel relate the case of a postvaccinal episode in a girl of 16 on the ninth day following a revaccination. The total duration of the anomaly was 27 days and recovery was complete. The case would have caused little attention were it not for the fact of postvaccinal encephalitis, a few cases of which have come to light during the past two years, in one of which, reported by Comby of Paris, encephalitis had begun with strabismus. The present case developed on the ninth day after a successful revaccination. The strabismus was of the right eye and divergent. There was slight inequality of the pupils and a little trismus. Some fever had developed from the vaccination but it did not go above 100.4°F., and the patient had for several days complained of headaches. Lumbar puncture revealed no sign of infection. The patient did not at any time present any evidence suggestive of encephalitis although there was doubtless a slight meningeal reaction. Probably the condition was a mild type of postvaccinal cerebral complication, such as is known to develop, although with extreme infrequency, from vaccinia, variola, varicella, and other infections not of this group. As it is easy to exclude the presence of a special virus in the vaccine the essential factor must be the oversensitiveness of the patient to an ordinary infection, which is not limited to the pock-like diseases. Cases of encephalitis have recently been reported after measles and it is believed that racial susceptibility to this lesion has increased greatly during recent years.—*Schweizerische medizinische Wochenschrift,* May 14, 1927.

Cervical Rib.—Alfred W. Adson and J. R. Coffey (*Annals of Surgery,* June, 1927, lxxxv, 6) describe a method of anterior approach for the relief of symptoms due to cervical rib by division of the scalenus anticus muscle. The incision is somewhat similar to that used for the midcervical approach, except that it extends forward and mesially over the sternoclavicular articulation and thus permits mesial reflection of the clavicular attachment of the sternocleidomastoid muscle. The fat and subareolar tissue in the supraclavicular triangle are reflected upward and laterally. The dissection is then carried upward into the lower border of the posterior triangle, exposing the plane of the carotid sheath mesially, the anterior surface of the scalenus anticus muscle, with the phrenic nerve, the lateral portion of the subclavian artery, and the brachial plexus. The transverse cervical and suprascapular arteries are ligated and divided. On observing the relation of the tendinous attachment of the scalenus anticus muscle, subclavian artery, and the brachial plexus near the cervical rib, one is able to demonstrate how the scalenus anticus muscle compresses the subclavian artery to from one-half to one-third its normal size. Tenotomy is then performed on the scalenus anticus tendon at its attachment. At first the authors removed the cervical rib, but later they found that this was unnecessary, inasmuch as the subclavian artery and brachial plexus were immediately relieved of pressure and irritation upon severance of the scalenus anticus muscle from its insertion. The anterior approach and tenotomy of the scalenus anticus muscle are preferable to the transcervical approach and resection, since the same relief is afforded, the procedure is less formidable, and postoperative numbness in the arm and palsy of the brachial plexus are avoided. In 54,413 new patients examined at the Mayo Clinic from June 1, 1910, to Oct. 1, 1926, cervical rib was diagnosed in 303 cases, an incidence of 0.056 per cent. In 167 cases the cervical rib gave rise to no symptoms. Such patients should not be informed of the accidental findings, as the knowledge that such a condition exists may give rise to a neurosis. Surgical intervention should not be advised for mild indefinite pain in the neck and shoulder.

Diverticulosis and Diverticulitis of the Large Intestine.—In an article in the *Practitioner,* June, 1927 (cxviii, 6), F. de Quervain, on the basis of his experience with a dozen cases, describes the different pathological processes associated with diverticulosis and diverticulitis. He shows that these conditions cannot be differentiated by clinical symptoms from colitis of the spastic or of the hemorrhagic form, from perforative pericolitis and periproctitis, acute perforation into the free peritoneal cavity, and chronic stenosing diverticulum tumor. There are only two methods of investigation by which a diagnosis can be definitely established, namely, rectosigmoidoscopy and *x*-ray examination. In rare cases the rectoscope allows a diverticulum opening to be seen directly, but as a rule the examination is beset with difficulties which detract from its usefulness. De Quervain has been able to make the diagnosis on the basis of the *x*-ray findings in a number of cases. This is best done by an investigation of the contrast enema, after thoroughly emptying the large intestine. Examination after a barium meal per os is not satisfactory. The *x*-rays show the diseased section usually rather narrower than the normal adjoining parts. On account of the spasm, it sometimes exhibits that marked pattern of the folds of the mucosa which de Quervain has termed the accordeon form. Lastly, some of the diverticula will be found to be filled with the opaque fluid, and are consequently easily recognized as such. In patients with the greatest degree of stenosis, in whom even a thin barium suspension cannot pass above the constricted site, the roentgenographic examination fails to establish the diagnosis. Patients with no symptoms, or those with only mild symptoms of the type of a spastic colitis should not be subjected to operation. If the disturbance be marked, if there be much hemorrhage, or if attacks of obstruction have already occurred, operation is the only treatment possible. On the basis of experience reported up to the present time, resection of the diseased portion of the intestine is the ideal operation. But it is only ideal when the whole segment of the large intestine affected by the diverticula can be removed without difficulty. In a number of cases, particularly in obese patients, operation must be limited to short-circuiting the diseased section of the intestine by entero-anastomosis, unsatisfactory as this maneuver may be with regard to preventing perforation. In especially difficult cases it may be necessary to establish an artificial anus or even to remove the entire sigmoid colon and implant the transverse colon into the rectum. If there be a rectovesical fistula present, an operation should not be decided upon in too great a hurry, since such fistulae may close spontaneously, as occurred in one of the author's cases.

LEGAL

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THE PRACTICE OF MEDICINE AN EXTRA HAZARDOUS UNDERTAKING

The subject of this editorial is an old one, and yet your counsel feels it his duty now and again to call it to your attention.

In his Annual Report for 1927, the writer referred to his report of the previous year wherein he wrote:

> "Perhaps it might not be out of place here to notice how fortunate the doctors have been thus far in avoiding large verdicts. The trend of the times in every other field of negligence law is unquestionably towards larger damages where juries find in favor of the plaintiff. The present value of the dollar is always taken into consideration, so that it is safe to say where a jury ten years ago might have rendered a verdict for ten thousand dollars, it will now award double that sum or more. Juries have become increasingly liberal with the money of defendants in every other field of negligence cases when they find against them."

Recently our attention was directed through the public press, to a notice of the largest verdict which is known to have been recovered in any tort action in this State. A verdict in Mr. Justice Edward J. McGoldrick's Part of the Supreme Court was rendered in favor of a plaintiff (who happened to be a member of the medical profession) for $250,000.00. It seems that the plaintiff in that case had been struck by a bolt while a passenger on an I. R. T. subway train. The plaintiff had been a surgeon at the Skin and Cancer Hospital and the Presbyterian Hospital. He was blinded. The bolt which caused the injury struck his left eye. After losing the sight of his left eye a sympathetic condition developed in the right, resulting in total blindness. The plaintiff had been the recipient of an income of $150,000.00 a year before the accident and had a distinguished record as a physician. During the war he performed more than 3,300 major operations on soldiers, including an operation on the second American soldier to be wounded in the fighting. The jury listened to his evidence, he was the only witness for the plaintiff, and awarded him a quarter of a million dollars for his damage. No one could consider this case, the earning power of which the plaintiff had been deprived and the terrible nature of the injury which he received, without feeling a strong sympathy for him and a satisfaction that justice was so abundantly accorded; yet, as one considers the amount of this verdict, it is impossible not to appreciate that the tendency of the times and the present value of the dollar are resulting more and more in larger verdicts in tort actions of all kinds. The writer has recently examined into the authorities on this subject and among many other verdicts would call attention to these:

Within the last few months, before Mr. Justice Gavagan in the Bronx, a married woman who had been seriously injured in an automobile accident was awarded $65,000.00 by the jury;

In a recent case, the plaintiff suffered from burns from a high voltage wire resulting in the loss of both arms; he sued the railroad company and recovered a verdict of $55,000.00;

In another case against another railroad company, a five-year-old child recovered $10,000.00 for the amputation of a foot;

In another, a railroad fireman suffered an injury which resulted in the amputation of his leg, and recovered a verdict against a railroad company for $20,000.00, which, however, was subsequently reduced to $12,000.00, as it was held that the plaintiff was entitled to workmen's compensation;

In two other accident cases $20,000.00 was awarded in each case for the loss of a leg;

In another accident case $32,500.00 was obtained for the crushing of an arm at the shoulder;

In another case $25,000.00 was awarded for the loss of an arm; while in still another case a brakeman twenty-seven years of age, received an injury consisting of a broken leg and a fractured pelvis, and the jury awarded him $22,500.00;

In one case a factory employe of a motor company received $25,000.00 for loss of vision; while in a similar case $15,140.00 was awarded for the loss of sight in one eye;

Very recently a middle-aged business man earning $10,000.00 a year was killed and his widow was awarded $40,000.00; while in another case a musician forty-six years of age was killed. He had an earning capacity of $4,200.00 a year. His administratrix obtained a verdict of $30,000.00;

In a case against one of the city railroads a business man 62 years of age, with an earning capacity of $25,000.00, recovered a verdict of $27,500.00;

In a case against a traction company of this city, a fireman thirty-eight years of age was killed; his earning capacity was $3,300.00, yet his widow recovered $25,000.00.

These are but a few instances of the many which could be cited. Of nearly 400 cases undisposed of in your counsel's files there are many cases in which the damages sought are in excess of $100,000.00. More than one-half of these cases seek damages in at least half that sum. In many of the cases now on file it is claimed that death was caused through a doctor's fault; in others, loss of sight in one or both eyes; while in still more, injuries resulted from alleged improper treatment of fractures. The cases now pending in the writer's hands embrace claims involving nearly every injury and disease to which the flesh is heir.

A jury is a fickle thing. That no one can tell what a jury will do is more than a platitude. It is a statement of the exact truth. Even where the doctor feels that he has not been at fault in any way and where his experts agree with his position, and where your counsel to the best of his capacity, seeks to uphold, sustain and justify the doctor's course, on the theory of chances, it is inevitable that he cannot always be sustained.

The writer feels that the medical profession may take a just pride in the small number of verdicts which has been recorded against any of their members, and yet some adverse verdicts are bound in the future to occur as they have happened in the past. No doctor is infallible; no doctor is perfect; he is only a trained human being doing the best within his power; but even the most trained, conscientious and experienced man will err. This is true of engineers, lawyers, statesmen and business men; it is equally true of the medical profession. It is the fair and honest recognition of these things which led to the inauguration and maintenance of the Society's group plan. By means of this, not only does the assured receive the benefits of your counsel's services, but the assistance and cooperation of the trained investigators of the insurance carrier throughout the State. And, of course, above and beyond all this, if in any case the jury should decide against the doctor, that doctor if insured is financially protected, and the judgment is paid by the insurance carrier rather than by him. The benefits of this group plan have been frequently expounded and have received and are receiving an increased appreciation from the medical profession.

More, perhaps, than the doctors themselves appreciate, the medical profession is misunderstood by many of the lay public, especially, of course, among the more ignorant members of that public. This ignorance results in many malpractice actions without merit which should never have been begun. It results in supposed grievances which are without real foundation but which eventuate in court actions. The fact also should not be forgotten that not every action brought is totally without merit.

A short time ago, the writer called attention to the murder of Dr. Pendola by an ignorant and inflamed Italian. A similar case was but recently recorded in Pennsylvania. There it seems that Dr. Frank Fisher Moore of Homer City, some seven years ago, was called to treat one John Ammorian, a coal miner, whose back had been broken in a mining accident. The surgeon operated and his associates marvelled that he saved the miner's life and made it possible for him to walk again; and yet the patient, whose heart should have been filled with gratitude because he lived and could walk, nourished a grudge against his benefactor because he was forced to go about with the aid of a cane. His conception of the doctor's duty was that he should have performed a miracle and have given him exactly as good a back as he had before his injury. A few days ago, this patient hobbled into the office of Dr. Moore and complained that his back pained him. The surgeon, ever ready to be of such assistance as he could, told the miner that he would be glad to take him in his automobile to the hospital for an X-ray. They boarded the surgeon's machine and about four miles from Indiana, Pennsylvania, the automobile left the road and overturned. It was believed at first that Dr. Moore had lost control. Farmers rushed to the scene, and when they arrived, found that the doctor had been shot three times in the head, the shots entering his skull from the rear. In the back seat they found the miner with three bullets in his temple and a pistol by his side. The surgeon was dead, and one hour later, without making any statement, the miner died also. A Coroner's jury returned a verdict of murder and suicide.

Fortunately, few doctors are murdered by their patients, but an assult made upon their good name by means of a malpractice action is an incident likely to arise out of any professional relationship, especially where the patient is ignorant. An understanding of these things caused your officers to inaugurate for your benefit the State Society's group plan.

COLLES FRACTURE—SLIGHT DEFORMITY

On January 6th a physician was called to attend a woman of about fifty years of age. On examination he found her suffering from a Colles fracture of the left wrist. At this time he told the patient that he would not put the fracture up alone but desired another physician to assist him. The patient was taken to her home and the defendant, assisted by another physician who administered an anaesthesia, reduced the fracture and put on splints and the usual dressings. He called on her on the following day, examined the arm but did not disturb the dressings or splints. On January 11th when he called the patient was ill with influenza. He continued to treat her for this condition and also the arm until the 23rd of January. Thereafter he made frequent calls upon the patient, making necessary examinations of the arm until February 21st. On March 1st the patient visited the defendant at his office. He found the arm in good condition. When he was first called to attend the plaintiff he advised her that an X-ray should be taken. The patient stated that she did not want any. On February 6th, on examining the arm the defendant observed a slight deformity which he endeavored to overcome and advised the patient to carry her arm in a sling, which, however, she refused to do. She likewise refused to follow the advice to use the hand and arm. She continued to call on the defendant at his office until April 8th, upon which day she then went to another physician for X-ray. This physician advised the defendant that X-rays had been taken of the patient's wrist and that the patient was dissatisfied and refused to have anything more to do with the defendant.

At the office of the roentgenologist, defendant examined the X-rays and saw that the fractured end of the radius had slipped in around the ulna just enough to make a deformity and limit the motion a little.

In an action instituted against this physician to recover damages for the bad result, the plaintiff charged that she sustained an injury to her arm by falling upon the sidewalk and that the defendant physician was engaged to attend her for her injury; that he made an examination and found the bones broken and advised that immediate action be taken to set the same; that he removed the plaintiff to her home and called in a physician to assist him in administering an anaesthetic while he performed the necessary treatment for the reduction of the fracture. It is claimed that the defendant stated after making his examination that it was a clean fracture, without splinters or a crushing of the bones and that as a result the hand would be all right after a few weeks; that the plaintiff relied upon the skill of the defendant and his representations that he was qualified to properly attend and care for her; that he was negligent and careless in the setting of the fractured bone and did not use the proper care or attention or appliances in his treatment of the plaintiff, and that by reason of his negligence she was caused to suffer great pain and anguish, the hand became greatly swollen and diseased, the bones allowed to overlap and were not properly united, and that they became disunited, rendering her hand and arm practically useless, and leaving her unable to perform any kind of labor or to move or use the arm without great pain.

When this action finally came on for trial, plaintiff's attorney then being engaged in practice more lucrative than the prosecution of malpractice actions and being pressed to trial, the complaint was dismissed, judgment being entered in favor of the defendant.

MALPRACTICE COUNTERCLAIM

A physician, in an attempt to collect for his services, rendered to a patient instituted an action. As often happens he was met with a counterclaim of alleged malpractice, it being claimed by the patient that he was injured and damaged when he called at the physician's office and that in spite of his weakened and ill condition he was negligently and improperly directed to strip and remove all of his clothing and lie entirely nude upon a cold stone or marble seat or platform which, because of his weakened condition, his advanced age and the low temperature of the physician's office, caused the patient to contract a severe cold which aggravated his illness and retarded his recovery.

The physician was a roentgenologist and the patient had been referred to him by the patient's family physician, who was treating him for gastro intestinal and gall bladder trouble. On the 23rd, 24th and 25th days of January, the physician as such roentgenologist took a series of X-rays of the esophagus, stomach, small intestines, large intestines, gall bladder and vermiform appendix of the patient. The series consisted of twenty plates. The roentgenologist also made a fluroscopic examination of the patient's heart and lungs and consulted with the patient's attending physician with reference to the radiographic and fluroscopic findings.

The matter was finally adjusted by the physician reducing the amount of his bill and the patient withdrawing the malpractice counterclaim.

NEWS NOTES

A CANCER CURE

The following letter was received by the State Department of Health. While it would have enlivened the pages of Health News, it will be equally interesting to those who read the official organ of the State Medical Society.

While the writer would be condemned by judges and juries on account of his illiteracy, he probably has as much knowledge of medicine as the city chiropractor who sports a decorated office and enjoys immunity from prosecution on account of his outward show of eloquence.—Editorial Note.

"Sir: I writin you in regard to my cancer cure I had an atturney to write for me and never red the last and you have never answered. I will write you myself now I have no edication I no nothing about meadison all I have is Mother Wit but I have got a cure for cancer I am cureing them right along I can send you names of as many as you want to write to and let them tell you what I have doen for them after the meadical Doctor faild. I take them and cure them now I cure Ezema after the Drs say they can be nothing doen for them. now this meadison I go to the woods and get it all and make it at home. I go to the Drug store for nothing that goes in it. now as for the cause of cancer the only cause I no for it is a bruse for all I have treated in talking to them about them I find they come from a bruse. when they come in the mouth they said it was wheare they bit with theare teeth in 2 cases where they cut a mole on the face in shaving that is as well as I can explaine myself. but my meadison wil cure them all of course they can go to fars. but I have takin them out with one application as larg as the palm of my hand I tak them off the eye and the meadison gets in on the eye ball and it doesent affect the eye at all it doesent affect the sound flesh at all. well as I cant write much I will wind up by saying if you think enough about my meadison if you will send a man heare to see these cures I have cured and talk to them and learn for you what I have doen and see me treat one and see the meadison work there is lots of them heare and I cant see half of them in Ala. I want the public to get the benefit of this Great Meadison I am now treating a case of Tuberculosis and he says I am doing him more good than all the Hospitle, and he has been sent to 5 Hospitles by the Government. if I had the edication I could do more than every Hospitle in the world if this appeals to you let me heare from you soon as I am thinking of going to Mumphis. I will close. yours truly

D. L. McE.
Florence
Ala.

GENESEE COUNTY MEDICAL SOCIETY

Twelve of the twenty-nine members of the Genesee County Medical Society were present at a meeting in the Holland Club Wednesday afternoon, July 13th.

The Society listened to a report by a special committee appointed to report upon the request made by the Grange for a solution of the problem for better medical service in rural districts. Last winter newspapers widely reported that a child had died in a family residing a short distance out of Batavia, because of lack of medical attention. The committee's report showed that this charge was unjust; the child, according to the health officer's report, died of laryngismus, acute attacks of which it had had previously. Physicians had been called several times by the parents when the child was suffering with one of its spasms, but they were of short duration, and usually the child had entirely recovered by the time the physician arrived. It was because of this that one physician, called on that particular night to substitute for the physician who had been attending the child, who was out of town, recommended certain procedures to the mother, which were followed and the child recovered, took nourishment and apparently fell into a normal sleep. It must have been attacked by another spasm during this sleep, from which it succumbed.

The committee reported only in outline and it was suggested that before a final report be given, an effort should be made to have a joint conference with the committee representing the Grange. This suggestion was favorably received and an effort will be made to arrange for a joint conference at an early date.

Dr. Sadlier, President of the Medical Society of the State of New York, discussed the importance of developing the practice of preventive medicine. He called attention to the great benefits that are resulting from the anti-diphtheria campaign which the State Society inaugurated less than two years ago. He urged the adoption of programs that would promote periodic examination of the apparently well, especially adults. He called attention to the assistance that the County Society might get from the State Society in developing such programs, particularly from the standing Committees on Medical Economics, Public Health and Medical Education, and the special committee engaged upon the study of diseases of the heart.

Dr. W. W. Britt, Chairman of the State Committee on Economics, supported Dr. Sadlier's suggestion for developing the practice of preventive medicine, and offered the assistance of his committee. He also called attention to the fact that his committee is cooperating with the committee appointed a year ago by the legislature to make a special study of the workmen's compensation laws, and urged the members of the Society to keep in touch with the progress that is being made by this committee in its efforts to reorganize the workmen's compensation law. He told of the investigation the committee had recently made in Syracuse, where an examiner was referring cases for physiotherapy treatment to a group in which he had a peculiar interest. He was convicted of the charge and dismissed as an examiner.

SARATOGA COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Saratoga County Medical Society was held at Rileys Lake House, Saratoga Springs, N. Y., Friday, May 27, 1927, at 4 p.m.

The application of Dr. Howard Johnson, Corinth, N. Y., having been received and passed by board of censors, was presented. Motion was made and seconded that he be declared elected a member of our society. Carried.

Motion made and seconded that an invitation be extended to the New York State Medical Society to hold the next annual meeting at Saratoga Springs. Carried.

Dr. Carl Comstock, as delegate to the State Society meeting at Niagara Falls, made a few remarks concerning the meeting.

Dr. F. Eaton gave a brief explanation of the object of the Pre-Natal Clinic being held at the Saratoga Hospital.

Dr. Van Der Bogart, of Schenectady, gave an interesting discussion on "Feeding in Infancy."

Following the business and scientific program, a luncheon was served.

R. B. Post, *Secretary.*

ONEIDA COUNTY MEDICAL SOCIETY

The Medical Society of the County of Oneida held its annual outing at Three Island House, Newport, on Tuesday, Juply 12th.

Among the committee reports heard by the Society was one of a special committee appointed to investigate sites for a tuberculosis hospital. The committee, composed of sixteen members, had made a very searching inspection of all sites mentioned, and many other places that, to them, appeared in certain ways to be suitable for the location of a tuberculosis hospital. A majority of the committee, eleven, reported the advantages and disadvantages of the many sites that they had visited, and finally decided upon a location at Alder Creek, in the northeastern part of the county. This location, they stated, has all of the advantages of every other location that was mentioned. The only disadvantage mentioned by any who had seen the place is its distance from Utica, but the committee reported that this, in their opinion, is not a disadvantage; that the distance is not so great but that consultants could readily reach the hospital, and the facilities for keeping open roads in the winter are such that the hospital would be accessible the year round. A minority, three members of the committee, reported in favor of a location closer to Utica, whose only advantage they named was proximity to Utica.

The members discussed both reports freely and the President called upon all physicians who would be expected to have ideas upon the matter, to give their opinion to the Society. The Society finally voted unanimously in favor of the site selected by the majority of the committee. Before selecting this location, due consideration was given to the report made by Jamieson Marshall, of the National Tuberculosis Association, who favored the site closer to Utica.

Dr. Sadlier, President of the Medical Society of the State of New York, outlined the activities of the State Society and particularly stressed the importance of developing the practice of preventive medicine which, he said, differs from curative medicine only chronologically. He cited the great advantages that are accruing from the anti-diphtheria campaign which the State Society has sponsored, and forecast an equally encouraging result from a more active campaign in periodic medical examinations. He commended the Society for its interest in securing a location for the tuberculosis hospital and stressed the importance of medical men, through their organization, taking a greater interest in community affairs. A Committee on Public Relations, he said, should be one of the most important committees in every County Society, for upon it will devolve the duty of coordinating the public welfare agencies and the medical men in effective community service. He also commended the Society for the enthusiasm shown in bringing postgraduate facilities to its members and urged its further cooperation with the Committee on Public Health and Medical Education.

Dr. Post announced that the next annual meeting of the Fifth District Branch will be held in Syracuse on October 13th, and requested a full attendance from Oneida County.

GREENE COUNTY MEDICAL SOCIETY

The Medical Society of the County of Greene held its summer meeting in Greenville on Tuesday, July 19, 1927. The guests were Dr. Sadlier, Dr. Lawrence, Dr. Borst, of Poughkeepsie, and Dr. Huntington Williams, District State Health Officer.

Greene County is a typical rural county; it has two railroads, one on the west border and the other on the east border. The Catskill Mountains extend across the county, dividing it into two sections, so that Catskill, its largest center of population, is accessible only with difficulty to a great portion of the residents of the county. There are, however, splendid automobile roads traversing it in every direction. In summer its population is greatly increased by visitors to the mountain villages and camps and, therefore, summer is the busy season for the physicians. In spite of that fact, nine of the twenty-four members of the Society were present at this meeting. This attendance was even more remarkable because three of the nine men present—Dr. Willard, of Catskill; Dr. Van Slyke, of Coxsackie, and Dr. Wasson, of Greenville—have been in practice respectively fifty-nine, fifty-eight and fifty-five years. The oldest member in the Society is Dr. Rouse, of Leeds, who has been in practice sixty years. Dr. Van Slyke holds the distinction of having been health officer for a greater continuous length of time than any man in the State. Only 17 per cent of the members of the County Society have been in practice twenty years or less, and another 17 per cent have been in practice more than fifty years. 37 per cent have been in practice more than thirty-five years.

The most important matter of business before the Society was the development of plans for the cooperation of the County Society with a committee which contemplates building a hospital for Catskill. Some years ago a benevolent citizen donated $40,000.00 for the erection of a hospital. The sum was not considered adequate at the time, but now the trustees of the fund have decided that the hospital should be built and they contemplate asking the communities to assist in making the fund ample for the erection of a suitable hospital. There is a question in the minds of some of the physicians as to whether there is need for a hospital in the county inasmuch as there are excellent hospitals in neighboring counties and since the mountains so divide the county that residents in one section would very likely continue to use the hospital facilities offered by neighboring counties.

Dr. Sadlier, in his address, warmly urged the Society to take an active interest in the organization of the hospital for several reasons; 1st, that it was understood that the committee in charge of the erection of the hospital is composed entirely of laymen; and the County Society, therefore, owes the committee assistance. In the second place, the use of the hospital will devolve upon the physicians of the county, and they should, therefore, offer the construction committee assistance and advice in order that the hospital may give the community the largest amount of service. He suggested that the Society hold an adjourned meeting for the purpose of discussing the hospital plans as far as they are known and, at the same time, prepare suggestions which later they may offer to the construction committee. This was agreed upon, and an adjourned meeting was called for August 2nd in Catskill.

THE DAILY PRESS

HEALTH RULES

Life and health under modern conditions depend on watchfulness and care to an extent as great as in the days of savagery. Rules of health are numerous, and voluminous, and copious, and imperious. They form a chain which is no stronger than its weakest link. One may keep all the health commandments save one, and that one broken will bring disease and death. One may, for example, be careful with eating, drinking, rest, sleep and watchful against accidents, and yet be the innocent victim of milk-borne infection.

How great is the number of necessary health rules is painfully apparent to one who tries to reduce them to a simple code. Benjamin Franklin devised a set of rules for his daily life, but realized that he could not keep all of them all the time. He therefore concentrated on a single rule for each day, and in that way he gradually acquired an unconscious tendency to keep them all. Some such plan will apply equally well to the keeping of rules of health.

Heat and humidity bring great discomforts and indirectly produce disease and death, though not to the extent of former days when the causes of fermentation and infection were not understood. Rules for the care of health during hot weather have frequently appeared in periodicals and the daily press. The following rules were issued by the New York Tuberculosis and Health Association, and were printed on July 19, in the New York *Herald Tribune:*

Drink plenty of plain water—cool, but not ice cold.

Eat light, wholesome foods; plenty of vegetables, little meat, but do not eat cold food only.

Bathe frequently.

Avoid undue or unaccustomed physical exertion.

Don't worry about the heat.

The last sugegstion may sound trite or even humorous, but it isn't. It is important and it is possible.

For summer vacationists, a few hints from the New Haven Department of Health are splendid.

Out of doors: As many hours a day as possible.

Sunburn: Get it a little at a time.

Exercise: Plenty of it, but start gradually.

Swimming: Always have some one with you.

Sleep: Catch up on the past and stock up for the future.

Appetite: Don't overeat.

Water: If in doubt, boil it.

Milk: Pasteurized is safest.

Green vegetables: Have them thoroughly cleaned.

Poison ivy: Has ruined many a vacation. Keep away from it.

Mosquitoes: It is better to screen than scratch.

Good health conditions are a great help in conquering tuberculosis and hot weather precautions are of high value. The information service of this association will be glad to give any further information desired, without charge, to all who may inquire.

ADULT EDUCATION

The assertion has often been made, even by expert psychologists, that men and women get few new ideas after the age of twenty-five. But the New York *Times* of August 7th discusses the subject editorially and quotes authorities to show that adults can learn as readily as young persons. The editorial says:

"A booklet issued by the American Library Association is filled with such a variety of proofs that adults can learn, and moreover that they are eager to do so, that enthusiasm about the possibilities brims over. One of the most interesting reports is that of Professor E. L. Thorndike of Teachers College, Columbia University. During the past two years he has conducted experiments with two groups, one averaging in age 42, the other 22. Both were compared with a group of children. The adults were taught to write with the wrong hand, to operate the typewriter, and there were classes in algebra, science, foreign languages, etc. For all three groups there were classes in reading, spelling, arithmetic and other elementary school subjects. In general, both adult groups learned more rapidly than the children. The older group of adults learned almost as rapidly as the younger—roughly, about five-sixths as fast. The conclusion is that ability to learn increases until about 20, when it remains stationary for a time, and then declines very gradually. No one under 50 should be deterred from trying to learn something new by the fear of being too old, and even after 50 the decline is so slow that the attempt to learn is still well worth while.

"Not lack of ability, but lack of opportunity or desire to learn, now appears to be the reasonable explanation why adults so seldom learn a new language or a new trade. Both opportunity and desire have greatly increased everywhere in this country in recent years. Which one causes the other, if they are cause and effect, cannot be decided, so closely have they moved together along a rising plane. Correspondence schools are a part of the general development."

The editorial quotes descriptions of rural librarians in answering calls for literature and refers especially to a letter from a homesteader's wife in the mountains of Montana who received books by parcel post. The closing words of the editorial are:

"It is a long letter, with accounts of neighbors who have come ten or fifteen miles to 'study the book on precious stones and minerals,' or 'to study the Alpine flower book,' preparatory to identifying the flora of the near-by glacier. The entire letter, like the entire subject of adult education, may be drawn to a point in one sentence of hers—'It is to renew one's youth.' "

The editorial reflects the opinion of the leaders of the Medical Society of the State of New York, that practicing physicians can learn as readily as young medical students. The State Medical Society acts on that opinion and provides courses in medical study for physicians of all ages. It seems strange that anyone should deny that adults can learn readily.

BEAUTY DOCTORING

Dr. Cadman answers the following question in his daily department in the New York *Herald-Tribune* of January 14th:

"My wife, who is fifty years old, proposes to have her face lifted. What do you say about such a proposal?

Dr. Cadman's answer was as follows:

"So far as your wife is concerned, absolutely nothing. I have not seen her face. But since she lives behind it and you live in front of it, you ought to have some rights in the matter.

"Perhaps she may heed the warning that the operations of professional beautifiers are not uniformly successful. Nevertheless, physical wonders have been wrought for some faces, and if she decided upon the venture, may success attend it!

"Of course, you both know that real loveliness is of the soul and can find its replica in any countenance, however old or wrinkled. Indeed, it has a knack of lighting up the human face with a radiance which obliterates age, weariness, sorrow, as well as physical defects."

It is unfortunate that the eminent preacher should even seem to approve the work of beauty doctors. He was probably thinking of bone grafting and the formation of tissue flaps for the cure of deformities which the operation could not make worse. But the situation is very different when scars are produced for the cure of double chins, and paraffin is injected into the skin with the intention of supplying missing fat. The end result of the injections after four or five years is a hideous fibrosis with contractures and even the development of malignant disease. Such a condition as this is the concern of the patient's whole family and of the public.

THE IDENTIFICATION OF BULLETS

As this JOURNAL goes to press the whole world is discussing the cases of Sacco and Vanzetti, who are under sentence of death in Massachusetts for murder. The Communists are demanding the release of the men on the ground that their guilt has not been proved. The trial of the men took place about seven years ago and every legal means has been used to secure the freedom of the accused. Since the trial occurred, a means of identifying bullets has been developed. This new method is described by Major Calvin H. Goddard, Associate Director of the Bureau of Forensic Ballistics of New York City, in an illustrated article on page 701 of this JOURNAL of August 15, 1926. It is based on the principle that each individual pistol will produce the same scoring on every bullet that is fired from it; and these scorings are as constant and evident as the lines of a person's finger print.

The *New York Times* of August 10, describes the tests by which Major Goddard has recently demonstrated that two bullets taken from the body of the murdered person were fired from a pistol that was in the possession of one of the accused men.

Since physicians are often called to do autopsies on murdered persons, they will find Major Goddard's article of great practical value.

BOOK REVIEWS

The Diseases of Infants and Children. By J. P. Crozer Griffith, M.D., and A. Graeme Mitchell, M.D. 2nd Edition, reset. Two octavo volumes totaling 1715 pages, with 461 illustrations, including 20 plates. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $20.00 net.

This two volume Diseases of Infants and Children is a scholarly work, with more than the average number of references to the medical literature. It is well written and well printed on good paper with illustrations above the average in clearness.

The weight and height tables of the Children's Bureau have been selected for boys and girls up to 6 years, and Wood's tables for weight and height have been selected for boys and girls 5-18 years. Height and weight statistics are largely a matter of preference and the tables selected are probably as satisfactory as any. Certainly they have the merit of nearly universal use.

Among the subjects, the treatment of which is to be commended, are Premature Infants, Scarlet Fever, Scurvy, Pyloric Stenosis, Meningitis, Eczema, Otitis, and Diseases of the Blood Spleen, and Lymphatic Glands.

In dealing with the feeding of the premature, one wishes the authors had been more definite and given us the results of their personal experience in addition to the general principles. This same want of personal preference comes out in various places in the book, another instance being the lack of comment on personal experience with Scarlet Fever Streptococcus Antitoxin. With the large experience of the authors at their command, the reviewer feels this lack of record of personal opinion to be a great loss.

Another lack is in the artificial feeding of the new born and young infant, which the reviewer thinks might have been more helpful if worked out in more detail as it is for the older child.

However, the points just mentioned cannot detract from the real value of the book for reference, and for an every day guide, which is the real field it covers, and the appeal of the book will be, in the future as it has been in the past, to the student, the pediatrist and the general practitioner. It is highly recommended.

Archibald D. Smith.

Management of the Sick Infant. By Langley Porter, B.S., M.D., and William E. Carter, M.D. 3rd Edition, revised. Octavo of 726 pages, illustrated. St. Louis, The C. V. Mosby Company, 1927. Cloth, $8.50.

The writers of this book were prompted to write it because of the long felt need of a single volume dealing with the treatment of diseases as manifested in infancy.

The first part of the text is very sensibly devoted to the consideration of symptoms and their significance, such as: vomiting, diarrhea, constipation, nutrition, hemorrhage, pain and tenderness, convulsions, fever, and cough. The second part deals with diseases of the various tracts and regions, as well as with infectious diseases, and internal secretions. The third and last section is devoted to methods, formulas, recipes, and drugs. The last section is the only one that is illustrated, and this is quite appropriate since the descriptions of the clinical procedures require good illustrations, not only to simplify the description, but also to save a considerable amount of space on the printed page; and this is of value in keeping the book within the handy size.

The authors are men widely known, not only on the Pacific coast where they have carried on pediatric work, but throughout the country, and their language is always clear and concise. Their methods are simple, although scientific, and the present edition which is the third is of about the same size and arrangement as the previous ones. It will be welcomed by those who feel the need of a practical working guide in the difficult task of treating sick children.

Wm. Henry Donnelly.

The Practical Medicine Series. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A.M., M.D. Series, 1926. Chicago, The Year Book Publishers, 1926. General Surgery. Edited by Evarts A. Graham, A.B., M.D. 12mo of 726 pages, illustrated. Cloth, $3.00. Price of the series of eight volumes, $15.00.

This book of abstracts on general surgery has been a part of the yearly library acquisition of the general surgeon for so long that it needs no introduction.

Dr. Graham has used essentially the same abstracting technique as that employed by his predecessor the late Dr. Albert Ochsner. This is probably due to the fact that preparation of the abstracts is still under the direction of Dr. Louis J. Mitchell.

This particular volume contains many interesting abstracts particularly on the gall bladder, treatment of burns, and diseases of the breast. As a whole, this volume is essentially as complete and useful as those of previous years.

Herbert T. Wikle.

Urinary Surgery. A Handbook for the General Practitioner. By William Knox Irwin, M.D. 2nd Edition, revised and enlarged. 12mo of 271 pages. New York, William Wood and Company, 1927. Cloth, $4.00.

This brief work covers the subject of Urology in a clear and concise manner. It is in no sense a reference book, but intended as a guide for the busy general practitioner.

The first chapter is an excellent review of the surgical anatomy and anomalies of the urinary tract.

Each of seven chapters is devoted to a symptom, in which all possible lesions producing that symptom are discussed, e.g., frequency, retention, incontinence, etc. This helps the practitioner to visualize the possible or probable etiology in a given case, and to properly institute early and suitable methods of investigation.

We note that the writer regards the lithotomy position as quite unnecessary for cystoscopic procedures. The author also has a novel way of sealing the male urethral meatus in temporary urinary incontinence cases.

The description of operative technic covers the entire urinary tract.

Augustus Harris.

Interpreters of Nature. Essays by Sir George Newman, K.C.B., M.D. Octavo of 296 pages. London, Faber and Gwyer, [1927]. Cloth, 12s. 6d. net.

Sir George Newman's book of a scant 273 pages will satisfy many tastes. It will appeal to the student of medical history, warm the heart of the intelligent who are drawn to interesting things well done by a master hand at stringing words into sentences, and to the individual who merely asks to be entertained. A book every physician should keep on his reading table and read and reread.

Interpreters of Nature is composed of nine essays of men whose careers, in science or literature, are identified with the progress of medicine. The book opens with The Great Paduans. A Century of Medicine at Padua. The second essay concerns itself with Thomas Sydenham, Reformer of English Medicine. There follows delightful sketches of Herman Boerhaave, John Hunter, the private practitioner as pioneer in preventive medicine, John Keats, apothecary and poet, Louis Pasteur, William Osler, a physician of two continents, Modern Interpreters, and the last one, Future Interpreters, everyman in preventive medicine.

Besides reading like a novel it has the stamp of authority, is well indexed, and a book one just has to urge one to acquire and enjoy. T. S. W.

EXAMINATION OF CHILDREN BY CLINICAL AND LABORATORY METHODS. By ABRAHAM LEVINSON, B.S., M.D. 2nd Edition. Octavo of 192 pages with 85 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $3.50.

Physicians almost invariably become expert along one or two lines, clinical ability or laboratory skill. Dr. Levinson is a fine example of a man who is expert both as a clinical pediatrician and as a laboratory expert.

The present volume is the second edition of a work which appeared in 1924 and which was received with open arms by all those interested in the medical care of children. As will be recalled by readers of the first edition, Dr. Levinson gave a course in laboratory work to the students at the Northwestern University Medical School, and he has based this treatise upon it. The original outline has been followed in the second edition, and consists of three main divisions, first: Methods of clinical procedures in infants and children. Secondly, a description of simple laboratory tests that can be carried out in the ordinary laboratory or office. Thirdly, a discussion of the interpretations of various clinical laboratory tests as applied to infants and children.

Emphasis is very properly laid on the difference between the normal standards in children and those in adults. This book was not written for the children's specialist nor for the laboratory worker, but for the medical student and the general practitioner. In this second edition several methods of examination have been elaborated upon, and a few new methods added.

Chapters on Case History and Physical Examination have been enlarged, and sample charts are presented with the hope of supplying a working guide for the busy practitioner. It would seem to me that this book is almost indispensable to any physician who treats children either as an exclusive line of work, or as a part of his general practice. WM. HENRY DONNELLY.

PRACTICAL GASTROSCOPY. By JEAN RACHET, M.D. Authorized translation by FRED F. IMIANITOFF, D.S.C., B.A. Octavo of 148 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.50.

This little book by William Wood and Co. is attractively assembled and profusely illustrated, including some beautiful plates of intra-gastric views. The subject matter includes a detailed resumé of the history of the gastroscope followed by a discussion of the advantages of the rigid over the flexible and the straight over the elbowed instruments. The author believes Dr. Bensaude's instrument superior because it is introduced over a filiment guide with a metal tip. Otherwise it differs very little from others in use such as the Schindler and the Sternberg gastroscopes.

Although rejecting some of Schindler's doctrines his dicta concerning position of the patient, introduction of the instrument and orientation in the stomach are ultimately adopted.

An elaborate study of the hardened cadaver placed in the various positions used for gastroscopy and sectioned was made to determine the position of the organs in these positions and to find the best position for examination. This led to the conclusion that a new position called dorso-lumbar lordosis is the ideal one for examination. In actual practice on the living subject how ever this was contradicted and the admission finally made that the genu-cubital and left lateral positions, held by other authors to be superior were the most satisfactory.

Much zeal and labor were necessary to make the investigations described and the author deserves great credit therefor. Although little has been added to the knowledge of gastroscopy as developed by Elsner, Schindler and Sternberg, the book presents in a general way a readable discussion for gastroscopists and others especially interested in gastric examinations.

HENRY F. KRAMER.

SOCIAL FACTORS IN MEDICAL PROGRESS. By BERNHARD J. STERN, Ph.D. Octavo of 136 pages. New York, Columbia University Press, 1927. Cloth, $2.25.

It struck the reviewer as unfortunate this short work was not offered to the reading world by some publishing house of popular fiction, accompanied by all the fan-fare and ballyhoo and publicity given by such publishers to their product, instead of slipping without fuss or noise upon the book-lists which, at best, are studied only by the select few who are called by the man on the street "high-brows."

Doctor Stern has written a readable, instructive, interesting book. And what more can one say or what higher praise can one give to an author or his work?

SOCIAL FACTORS IN MEDICAL PROGRESS is done in two parts. Part One deals with such delightful subjects as, Factors which Retard the Diffusion of Innovations, Conservatism in Medicine, Opposition to Dissection, Opposition to Harvey's Theory of the Circulation of the Blood, Reception of Auenbrugger's Theory of Percussion, Opposition to Vaccination, Opposition to Holmes and Semmelweis, Opposition to Pasteur and His Discoveries, Opposition to the Doctrine of Antisepsis, Opposition to Asepsis, and a Summary.

Part Two deals with a Biography in Medical History, The Dependence of a Discovery upon the Existing Knowledge, and Multiple Inventions and Discoveries in the History of Medicine.

Then follows a complete Bibliography and Index.

T. S. W.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. Forty-fifth Year. Octavo of 560 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

The present is the forty-fifth consecutive yearly volume of the Medical Annual, and it is the pride of the publishers that it has not yet ceased growing. As in previous issues an attempt has been made to give a synopsis of the work done, and the publications which have appeared, during the year.

A feature which is unusual in a work of this kind, is the presence of really remarkable illustrations in the form of photographs, colored plates, and diagrammatic drawings. While the contributors are all from the British Isles, it must be said that the American literature receives the largest share of consideration. There can be no question, but that works of this character are of great value to the busy practitioner, and it is for him especially, that this book is intended. The International Medical Annual continues to hold a reserved place in the front ranks of the year books of medicine.

WM. HENRY DONNELLY.

LES STUPÉFIANTS. Par le Docteur R. PORAK. 12mo of 348 pages, illustrated. Paris, Gaston Doin & Cie, 1927. Paper, 18 Francs.

The author has lived since 1918 in Persia, China, and South America, where he has been able to observe the effects of narcotics in these various regions. If alcohol and its action has been studied extensively in Europe, other poisons such as opium, hasheesh, and cocaine, have been neglected both by doctors and physiologists. This gap, Porak in his book, has attempted to bridge. The writer is a physiologist as well as a clinical worker and is well known for his article on "The New Investigations of Diuresia" and he applies in this instance his individual and original methods to the pharmacodynamics of the narcotics.

An interesting feature of the book is the setting forth of a number of personal experiences of intelligent patients with the various drugs.

Wm. Henry Donnelly.

The Fifth Avenue Hospital Clinics. First Series, Based on the Material from the Semi-Monthly Staff Meetings, 1925. By the Editorial Board. Octavo of 336 pages, illustrated. New York, Paul B. Hoeber, Inc., 1927. Cloth, $5.00.

This volume is composed of material from the semi-monthly staff meetings of the Fifth Avenue Hospital, together with cases in the hospital. The articles are arranged chronologically in the order in which they were presented at the various staff meetings. They are of a very high order, and the selection of a few therefrom naturally depends upon the individual interests of the reviewer. The articles which appealed in the present instance are:

Cervical Adenitis—By R. Franklin Carter.

Roentgenograms of Pulmonary Tuberculosis—By Lewis Gregory Cole.

Convulsions in Infancy—By Frederic H. Bartlett.

It would seem that this custom of giving to the public, in a well printed, well bound, and well illustrated volume, the interesting articles read at the staff meetings is a good one, and might be followed with advantage by other institutions.

W. H. D.

History of Medicine. By Dr. Max Neuburger. Translated by Ernest Playfair, M.B., M.R.C.P., in two volumes. Vol. 2, Part 1. Octavo of 135 pages. London, Humphrey Milford; New York, Oxford University Press, 1925. Paper, $2.25. (Oxford Medical Publications.)

This is a volume of 132 pages of delightful English, full of reliable medical history, touching six important phases of the subject i.e., Medicine in the Early Middle Ages, Medicine in the Eleventh and Twelfth Centuries, Arabic Influence upon Western Medicine, Medicine in the Thirteenth Century, Medicine in the Later Middle Ages, Historical Survey of Literature.

For a non German reader this is a valuable library contribution, especially as the original comes from the pen of a scholar such as Neuburger. The style is easy and fluent. Indeed on taking up the book, one finds it difficult to put it down, until the last page has been read; and, having accomplished the whole, there remains a sense of regret that there is not more of it.

J. M. Van Cott.

Muscular Activity. By Archibald Vivian Hill, M.A., Sc.D., F.R.S. Octavo of 115 pages, with illustrations. Baltimore, Williams and Wilkins Company. 1926. Cloth, $2.75.

Those who are interested in the physiology of muscle will welcome this little book which is a report of the sixteenth course of the Herter Foundation lectures. If it contained no more than a mere summary of the contributions of the author and his co-workers to the subject its publication would be fully justified; but, far more than that, it is a series of sharply focussed discussions, in the light of recent research generally, of certain aspects of the mechanical, chemical and thermal phenomena of muscle-response and of the factors and processes concerned in recovery after vigorous muscular exercise.

The vividness of presentation throughout reflects the spirit of present-day scientific activity in the field under discussion, contributes to the attractiveness of the book and gives one the impression that the lectures have been printed as actually delivered, without fussy revision. This very commendable characteristic invites, indeed almost demands concentration of attention on the part of the reader lest he miss, here and there, some well-taken point in evidence or accept as firmly established some still doubtful conclusion.

Apparently, the lectures were intended for an audience composed mainly of those who are somewhat familiar, not merely with modern but also with recent physiology, and as such they are really brilliant and stimulating; carrying one far beyond the best of text-books and furnishing very useful, though brief bibliographic lists for checking-off purposes and for the enlightenment of anyone who, being interested, may not be sufficiently familiar with the specified results of recent research.

Progressive practitioners of medicine will find much of value in the book; especially in the fourth lecture, which deals, in a broad yet incisive way, with recovery processes and pointedly suggests some applications of this newer knowledge to conditions of fatigue and exhaustion.

J. C. C.

Cavernous Sinus Thrombophlebitis and Allied Septic and Traumatic Lesions of the Basal Venous Sinuses. By Wells P. Eagleton, M.D. 12 mo of 196 pages, illustrated. New York, Macmillan Company, 1926.

The introduction of the inductive method of reasoning made education real and living. Modern scientific pedagogy requires that the laboratory method be used in its widest application.

The author of this study has taken the history of twenty-five personally observed cases of cavernous sinus thrombophlebitis and reported them for definite objects. These objects are the recognition that the lesion must be regarded as a group of diseases, that exophthalmus chemism may or may not be present and that drainage plus arterial ligation is required for the rest of the part.

The text is an exhaustive treatise on the various types of this relatively rare but serious pathological condition.

R. F. Barber.

Hydrogen Ion Concentration. Its Significance in the Biological Sciences and Methods for Its Determinations. By Leonor Michaelis, M.D. Volume I. Principles of the Theory. Octavo of 295 pages with illustrations. Baltimore, The Williams & Wilkins Co., 1926. Cloth, $5.00.

This is by no means an elementary book. The author presupposes a certain amount of training in physical chemistry as well as in mathematics. This book also demands time and close attention, but given a student with the necessary previous training, he will be well rewarded for the time and attention that he may bestow upon this work.

The author is a master in this field and his presentation of the subject clearly shows it.

The translator is to be congratulated on the excellence with which he performed his part of the undertaking.

The original edition in German was published in 1921, but Prof. Michaelis revised this work before it was translated into English, so that it is more than an English translation of the second edition. It is really almost a third edition published in English in 1926.

Benjamin Davidson.

History Taking and Recording. By James A. Corscaden, M.D. 12mo of 78 pages. New York, Paul B. Hoeber, Inc., 1926. Cloth, $1.50.

This book of seventy-three pages is worth the reading by the practitioner as well as the student of medicine.

The importance of careful history taking, as an aid in diagnosis and treatment, is made clear.

Chapters on principles of taking and recording histories, symptoms, list of terms employed in history taking, lists of symptoms and analysis of symptoms, serve to render one's history taking a more orderly and complete procedure.

Joseph G. Terrence

OUR NEIGHBORS

HUMAN RABIES

A case of Human Rabies, in which the diagnosis was confirmed by animal inoculations, is described in the June issue of the Journal of the Tennessee State Medical Association by Drs. Wood, Yarberry and Litterer.

A laborer, aged 26, living in Knoxville, was bitten by a strange dog on the left index finger. The wound was treated by a physician, and was healed in about three weeks.

About two months after the bite, the finger began to show pain which extended up the arm and shoulder. In four or five days twitching of the left hand and arm began, aand he was unable to swallow. He became restless and excited, and his mouth filled with foamy sputum. The contractions involved the entire left side, and cyanosis developed. Death occurred two days after the severe symptoms began.

An autopsy was done on the head only. There was no evidence of acute inflammatory changes in the meninges or the surface of the brain. There was no excess fluid on the ventricles, but throughout the brain there were many punctuate hemorrhagic areas.

Sections of the brain revealed a few minute bodies resembling Negri bodies which were smaller and stained less intensively than those in animals.

Sections of the hippocampus major were injected into three guinea pigs and one dog in the Knoxville Branch of the State Laboratory, all of which died from the 19th to the 23rd day after inoculation.

Specimens sent to the State Laboratory in Nashville were inoculated into three guinea pigs and two rabbits, all of which died from the 20th to the 24th day, and all showed numerous Negri bodies. The report continues:

"From the first series of rabbits that died of rabies, inoculations were made into a second series. These rabbits developed rabies on an average of eighteen days.

"The second series of rabid rabbits were inoculated into a third series. The third series came down with the disease in fifteen days.

"Up to the present time, there have been seven series inoculated. All have died of typical symptoms of rabies and the Negri bodies demonstrated in the entire series.

"The last inoculated series died in eleven days.

"Further inoculations will be made with a view to produce a 'fixed virus' similar to the one used by the various Pasteur Institutes."

DRUNKENNESS DIAGNOSED BY CHEMICAL TEST

This Journal of June 1st commented editorially on a new test for drunkenness that had been reported in the daily papers which printed news of the Washington meeting of the American Medical Association. The author of the article read before the A. M. A. was Dr. Emil Bogen, of Los Angeles, who has a similar article in the June issue of California and Western Medicine. This article is entitled "The Diagnosis of Drunkenness—A Quantitative Study of Acute Alcohol Intoxication." It correlates the concentration of alcohol in the excretions with the data secured by the clinical and neurological examination of one hundred persons suspected of alcoholism brought to the Los Angeles General Hospital. The examination of each patient included the following points:

"1. Direct question as to quantity and variety of liquid imbibed and time since the last drink.

"2. If odor of alcohol is perceptible when patient exhales deeply.

"3. Size of the pupils.

"4. If the patient's face appears flushed.

"5. If patient staggers or reels when he tries to walk unassisted across hallway.

"6. If patient can stand with feet together and eyes closed without swaying. (Romberg test.)

"7. If patient can touch tip of nose with outstretched forefinger with eyes closed. (Coor dination test.)

"8. If patient can speak clearly, without slurring or mixing up syllables. (Test phrase 'Methodist Episcopal' was often used.)

"9. If any aberation of conduct or behavior was noted, especially garrulousness, boisterousness or pugnacity.

"10. If there was any complicating injury or disease present.

"11. Any other information which might be of value.

"12. A specimen of urine was obtained on admission and placed in a sealed test tube on ice until examined for alcoholic content. A sample of expired air was taken in a football, and immediately tested for alcoholic content.

"For determining the concentration of alcohol

(*Continued on page 934*)

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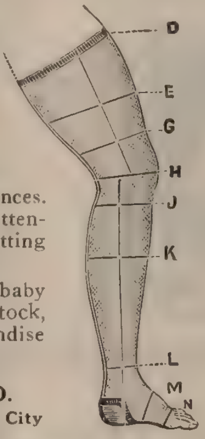

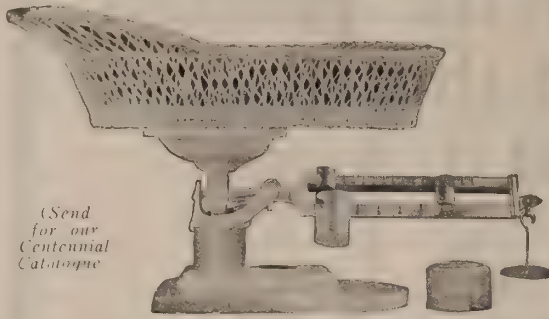
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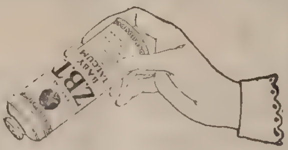

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(*Continued from page* 932)

in the breath the patient was asked to blow up football having a capacity of about 2,000 This air, while still warm, was then bubbled a moderate rate through 5 cc. of a hot soluti of 0.33 per cent (N/15) potassium dichromate 50 per cent concentrated sulphuric acid. T color change, from reddish yellow to greeni blue, was then measured by comparison with series of standards previously made up by t addition of known amounts of alcohol (1, 2 3, and 5 milligrams) to 5cc. of the reagent a sealed.

"For determining the concentration of alcol in the urine, blood or spinal fluid, 1 cc. of the u known solution (or½ cc. in some cases) w placed in a test tube and a purified current air was bubbled through this tube and th passed through 5 cc. of the potassium dich mate sulphuric acid mixture as used above f ten minutes, both tubes being immersed in boiling-water bath. In these tests, in addition noting the color change by comparison wi known standards, as above, the amount of r duction due to the alcohol was determined mc accurately by titrating with a solution of N/ ferrous ammonium sulphate in 5 per cent su phuric acid, using three drops of a 1 per ce solution of potassium ferricyanide as an in cator, until the deep blue color was obtaine Each 2 cc. of the ferrous ammonium sulphate s lution less than 10 cc. required for this tit tion represented 1 milligram of alcohol in t unknown solution when 1 cc. of the urine, blo or spinal fluid, etc., was used. When aceto was present in the unknown solution, it was r moved by the addition of 1 cc. of Scott Wilso reagent before aeration."

The results of the examinations were set for in seven tables. Commenting on the tables, t author says:

"The relationship of the concentration of cohol in the urine to the degree of intoxicati of the subject is strikingly brought out in tl table. None of the patients with less than milligram of alcohol per cc. of urine were fou to be intoxicated, a little more than half of the having from 1 to 2 milligrams per cc. were diagnosed, nearly three-fourths of those havi from 2 to 4 milligrams and every individu having 4 milligrams or more per cc. of uri were so pronounced. These diagnoses we naturally very conservatively made, since the r ceiving physician was called to court to susta his impression in many cases, and unmistakal clinical evidence was insisted upon for this pu pose.

"Even more striking is the relationship b tween the concentration of alcohol in the uri and the different symptoms usually consider indicative of acute alcoholism. The odor ohol was present in less than half of those wing under 1 milligram of alcohol per cc. ne, in more than three-fourths of those show-r from 1 to 3 milligrams, and in every instance ere the urine contained 3 milligrams or more alcohol per cc. On the other hand, the di-ed pupils and flushed face, so frequently called as evidence, were found in less than one-third these cases, and were particularly noted in the derate groups, being replaced by constricted pils and pallor in a high proportion of those ning in coma or stuporous.

"The inability to stand straight without sway- is generally accepted as a characteristic nptom of acute alcoholism. More than three-irths of the patients in this series showed this n, of whom twenty-nine, as noted above, were able to stand at all. The swaying was noted less than 20 per cent of those showing under 2 lligrams of alcohol in the urine, but in more in 80 per cent of the others who were able stand at all. In no case with 3 milligrams or ore was the subject able to stand without aying. Marked incoordination of the hands was orded in thirty-nine cases, and was most fre-ently found in those who had more than 3 lligrams per cc. Behavior disturbances, on the her hand, including garrulousness, volubility, phoria, boisterousness or pugnacity was more onounced in those showing from 2 to 4 milli ams, as they tended to lapse into sluggishness, ipor or coma."

The author continues:

"The concentration of alcohol in the urine nnot be taken as an absolute indication of the oholic concentration in the patient's tissues be-use of lack of information as to the time period ring which the urine had been secreted, as it uld, on the whole, represent the summation of of the different concentration existing during e period of secretion.

"The concentration of alcohol in the breath ers a very attractive-looking substitute (to ine tests), and table 5 shows it keeps pace with at in the urine."

The results of testing the blood and the spinal uids are also shown to be similar to those of e urine and breath.

The author says in conclusion:

"In view of the difficulty in making the diag-osis of acute alcoholic intoxication from the inical evidence alone, as may be confirmed om a review of the data in the cases above pre-nted, and in view of the constancy of the find-gs as to the concentration of alcohol in the urine id in the breath with reference to the degree of coholic intoxication, it is concluded that the ex-mination of patients to determine the state of toxication should in every case include some uantitative determination of the amount of

(*Continued on page 936*)

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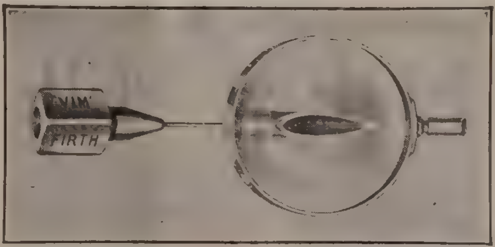

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(*Continued from page* 935)

alcohol present in the urine, breath, or bod fluids.

"We rely upon the alcoholic concentration i the urine, breath or tissues as the most important single factor in arriving at a correct conclusion as to the degree of intoxication of patient."

TULAREMIA

Tularemia is a disease of wild rodents, especially rabbits. It is caused by the bacteriu tulareuse, which is named from Tulare Count California, where the disease was first demonstrated in 1911 by McCoy and Chapin. It ma be transmitted to man. An article on the huma disease, by Dr. C. N. Kavanaugh, is containe in the July issue of Kentucky Medical Journa from which the following abstract is taken.—EDITOR'S NOTE.

Man acquires the disease from the bite of a infected fly or tick, or by contamination o wounds or the conjunctiva by fluids from infected animals. The author says:

"Four clinical types are described: (1) Ulceroglandular, the primary lesion being a papul later an ulcer of the skin and accompanied b enlargement of the regional lymph glands; (2 Oculoglandular, the primary lesions being a conjunctivitis and accompanied by an enlargemen of the regional lymph glands; (3) Glandula without primary lesions but with enlargement o the regional lymph glands; (4) Typhoid, withou primary lesions and without glandular enlargements."

The article describes seven cases seen in Central Kentucky, all of whom contracted the diseas from handling killed rabbits. Large numbers o wild rabbits had died in recent years from a unrecognized plague. The author says:

"Six of seven cases reported in this paper ar of the ulceroglandular type, the other being th typhoid type. All seven cases received their infection from preparing rabbits for food. N cases of the glandular type without primary lesions have come under my observation.

"The average period of incubation definitel determined by Francis in 49 cases was slightl over three days. Incubation period in the seve cases reported herein was six, five, three, tw and two days and two unknown. The onset i sudden, often occurring while the patient is a work, and is manifested characteristically b headache, vomiting, chilliness, chills, achin bodily pains, sweating, prostration and fever.

"Within 24 to 36 hours after the onset the sit of infection becomes manifest as a painfu swollen, inflamed papule which breaks dow liberating a necrotic core or plug and leaving a ulcer about three-eighths inch in diameter, wit aised edges and having a punched-out appearnce; on healing the ulcer is replaced by scar issue.

"In about half of the cases the lymph glands uppurate, an abscess rupturing through a soft, hin spot in the skin. Suppuration of these enarged glands has occurred as late as the tenth nonth. In the other half of the cases the glands lo not break down, but remain hard, palpable nd rather tender for two or three months, radually returning to normal. In one of the eported cases a large tender gland was present n the axilla after two years.

"The oculoglandular cases follow the general escription given above, but with primary inflamnation or ulcer in the conjunctival sac instead f the skin.

"In the typhoidal type, fever was the only utstanding symptom. Prostration, recurring hills and sweats occur as in glandular enlargenents. Following the initial fever, which lasts ne, two or three days, is a secondary rise to the riginal height, after which there is a gradual ecline to normal, the whole fibrile period lastng from two to three weeks.

"Convalescence is slow. It is rare for a patient to be at work again at the end of a month; usually the second month is spent lying about the house owing to weakness on exertion, and during the third month only half time work is performed. Some have not entirely returned to normal for six months or even a year. Recovery finally occurs without evident sequelae.

"The diagnosis is confirmed (1) By obtaining an agglutination of bacterium tularense by blood serum collected in the second week of illness; (2) By isolation of bacterium tularense from guinea pigs inoculated with material taken as early as the first week from the primary lesion or enlarged glands or blood of the patient.

"A negative Widal in a case simulating typhoid fever should immediately suggest the possibility of tularemia and the blood serum should be tested for agglutination and bacterium tularense. According to E. Francis, 'The persistence of agglutinins in the blood of patients who have recovered, however, is a notable and fortunate occurrence, so that the serum from patients who have been well for several years is of great diagnostic value.'"

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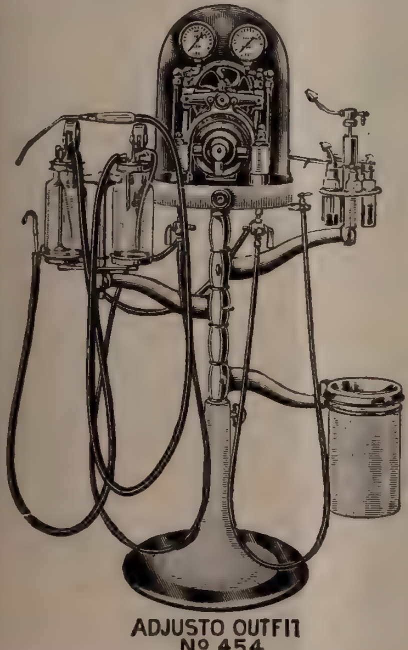

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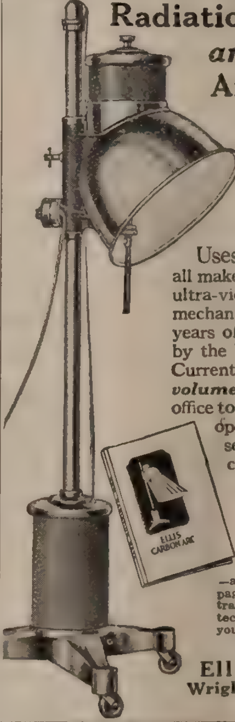

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THE RESULTS OBTAINED BY VARIOUS METHODS OF TREATMENT IN 622 CASES OF BLADDER TUMORS*

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IT is a well recognized fact that gross hematuria has its most frequent origin in bladder tumors. It is further well known that practically all of the more malignant types of tumor pass through a relative benign stage at which time their response to the more simple therapeutic measures is most satisfactory. Except for those cases in which the origin of hematuria is clinically evident it is necessary to regard the case tentatively, at least, as one of bladder tumor until this possibility has been eliminated by a cystoscopic examination. It is only by this means that we can hope to discover tumors in their early stages.

Four years ago one of us in collaboration with Dr. Hugh H. Young[1] reported the results obtained in the Brady Urological Institute by various methods of treatment in 380 cases of bladder tumor. Two years later we again brought our series up to date, and published our findings in *Young's Practice of Urology*[2]. Since then the addition of many new cases, as well as a careful check of the old ones has added much to our knowledge of the ultimate results.

The Frequency of Occurrence—In our series of 622 cases, the relative frequency with which the various types of bladder tumors occurred is stated in Table 1.

Of course, the adenocarcinoma and the squamous cell carcinomas are but special types of infiltrating carcinomas, but because they are not commonly found in the bladder, they have been classified separately. It is interesting to note that in 207 cases (33 per cent of the total number studied) papillomata were found. MacKenzie[3] in a study of 228 cases found that 48 per cent of them were benign. In a study of 222 cases Lower[4] reports that 51 per cent were benign, Fuch[5] reporting 135 cases found non-carcinomatous growths in 42 per cent of the cases. Albarran, in a histological study of 98 tumors of the bladder, found that about 30 per cent of them were papillomata.

TABLE 1.

Types of Bladder Tumor and Their Frequency of Occurrence.

TYPE OF TUMOR	*Number*
Benign papilloma	92
Malignant papilloma	105
Papilloma, not classified	8
Papillary carcinoma	141
Infiltrating carcinoma	271
Adenocarcinoma	1
Squamous cell carcinoma	2
Basal cell carcinoma	1
Dermoid cyst	1
Total	622

Age of Onset—The age of onset and the form of treatment are presented in Table 2.

The youngest patient appearing in the Brady Urological Clinic with a bladder tumor was a boy fifteen years of age who had a benign papilloma. One man 83 years of age appeared in the clinic with an infiltrating carcinoma of the bladder. Only ten patients in this series were less than 30 years of age. The majority of benign and malignant papillomas occurred between forty and fifty-nine years of age, whereas the greater number of carcinomas occurred between fifty and fifty-nine years of age.

Sex—In view of the fact that these statistics were obtained from a clinic in which most of the patients are male, no conclusions can be drawn regarding the relative frequency of occurrence in the male and female. Practically all the modern writers on this subject, however, agree that bladder tumors occur much more frequently in the male than in the female.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 10, 1927.

† We wish to thank Drs. Young, Frontz and Colston for the privilege of using their cases in this analysis.

TABLE 2.

Age of Onset in 622 Cases of Bladder Tumor and the Treatment Used.

TREATMENT	*No. of cases*	*Age not given*	*10-19 years*	*20-29 years*	*30-39 years*	*40-49 years*	*50-59 years*	*60-69 years*	*70-79 years*	*80-89 years*
Fulguration alone	59	3	1	7	11	14	10	9	4	
Radium by cystoscopic applicator and fulguration	163	13		2	13	28	44	43	20	
Radium applied cystoscopically, or this method plus another	59	4			3	9	19	14	10	
Radium applied by means other than cystoscopic application	12	3			1	3	3	1	1	
Suprapubic implantation of radium into vesical tumor	35	2			3	2	16	7	5	
Suprapubic resection of bladder with tumor	72	4			2	8	23	29	6	
Suprapubic cauterization of tumor	37				5	4	8	18	3	
Suprapubic treatment with diathermy	4					1	2		1	
Other operative measures	43	3			2	9	10	13	4	2
X-ray alone or combined with other therapy	54	3			1	11	16	15	7	1
Cases not treated	84	4			10	14	21	17	16	2
Total	622	39	1	9	51	103	172	166	76	5

Location of Tumors in Bladder—In our series the location of the tumors in 615 cases is shown in the following table, No. 3.

TABLE 3.

Location of Tumors in Bladder. 615 Cases

SITE OF TUMOR	*Number*
Anterior bladder wall	76
Vertex of bladder	12
Posterior bladder wall	94
Vesical orifice	66
Middle of trigone	39
Region of left ureteral orifice	74
Region of right ureteral orifice	104
Left lateral wall	94
Right lateral wall	56
Total	615

There were 283 tumors located on the vesical orifice, trigone and about the ureteral orifices. In view of the fact that 43 per cent of the tumors in this study were infiltrating carcinomas, one can estimate that about 114 of the growths in the above mentioned localities were infiltrating in type, making resection very difficult and in many instances, impossible. The other tumors in these localities were, for the most part, of the types that respond to fulguration alone, or radium, or radiation plus fulguration. It will be seen that there were but 74 cases in which the growth occurred about the left ureteral orifice as compared with 104 cases having tumor similarly located on the right side. Many more tumors, however, were found on the bladder wall in the neighborhood of the left ureter than the right.

Brief Description of the Various Types of Tumor Found in This Series

In this study we have followed quite closely the classification of epithelial bladder tumors advocated by the late Dr. J. T. Geraghty. For the purposes of interpretation, a very brief description of each type commonly found, presenting the salient gross and microscopic characteristics seems necessary.

1. *Papillomata.*—Tumors of this group are divided into two types, benign and malignant papilloma.

A. *Benign Papilloma.*—This type occurs in two distinct varieties, the villous and pedunculated tumors. On cystoscopic examination the villous tumors appear as delicate, friable, wavy, pale filaments of various lengths that spring separately from the vesical mucosa and respond quickly to fulguration. The pedunculated variety, as indicated by its name, has a definite pedicle from which spring friable, relatively short and quite compact papillae. Its surface is not necrotic and the mucosa to which the pedicle is attached is freely movable and, therefore, not adherent to the underlying structures of the bladder. The microscopic picture of the benign varieties is quite characteristic. The connective tissue axis usually extends at right angles to the basement membrane of the bladder mucosa and the pedicle of the tumor. It has a definite basal layer of cells which are uniform in size and shape and orderly in arrangement. The next layer is composed of "long-tailed" cells and above these the epithelial cells tend to assume the charactertistics of normal bladder mucosa. Their nuclei are like in size, stain alike, and mitotic figures are absent. The papillae are not fused.

B. *Malignant Papilloma.*—This type seems to be a sort of intermediary stage between the pedunculated benign papilloma and the papillary carcinoma, and it is frequently quite difficult on cystoscopic examination to differentiate it from either of these. On cystoscopic examination the pedicle, which is usually quite well formed, is seen to have springing from its surface short papillae that are compact and sometimes fused near the base. Due to a tendency towards implantation these tumors are more frequently found to be multiple than the pedunculated benign tumors. As a rule, this type is deeper pink in color than the pedunculated benign variety, and has an irregular contour, resulting in a sort of a raspberry-like appearance. Unlike the papillary carcinoma no necrotic areas are found on its surface, and no signs of infiltration are seen about its base. Its pedicle is not attached to underlying structures of the bladder. When fulgurated the resulting slough quickly disappears, whereas in the papillary carcinoma, the slough is quite persistent. On microscopic examination it differs from the benign papilloma in that its epithelial cells do not have a uniform arrangement in layers and the "long-tailed" cells are decreased in number or absent. There is considerable variation of the cells in regard to size and staining characteristics of the nuclei and the nuclolie are usually more prominent than normal. The papillae are not infrequently fused.

It is perhaps well to emphasize at this time the fact that it is not uncommon to find in tumors which are for the most part typically malignant papillomas, areas that are microscopically benign. On the other hand, microscopic areas of carcinoma have been found in tumors, the remainder of which have been histologically benign. Therefore, it would seem that the form of therapy indicated should be determined, where possible, by the combined cystoscopic and microscopic findings.

2. *Papillary Carcinomas.*—Villous or papillary tumors having infiltration of the connective tissue stalks of their papillae and their pedicles or which infiltrate the bladder wall are known as papillary carcinomas. The cystoscopic picture differs from that of the malignant papilloma in that the pedicle is usually shorter and broader, the papillae usually fused, and many times there are necrotic areas on its surface. In the presence of infection the tumors are quite often covered by a mucopurulent material. Infiltration of the bladder wall is indicated by nodular elevations of the mucosa and inflammatory reaction about the pedicle. The surface slough caused by fulguration is quite persistent. There is another type of papillary carcinoma, probably related to the villous type of benign epithelioma of the bladder which begins as a group of discrete short papillary growths that tend to fuse, forming a flat, sessile tumor of the bladder in which infiltration quickly occurs. The microscopic picture differs from that of the malignant papilloma in that the cells are more lawless in character and extent of growth, and there is invasion of the basement membrane of the papilla, the pedicle or the bladder wall.

3. *Infiltrating Carcinomas.*—Most of the tumors appearing under this classification were really extensive infiltrating papillary carcinomas, whose pedunculated surfaces have sloughed away. On cystoscopic examination one finds a sloughing, necrotic, ulcerated surface having a greyish base and a somewhat irregular elevated border. Many times small calcareous deposits are found attached to the ulcerated surface of the tumor. As a rule, the bladder is infiltrated over a much broader area than represented by the ulcerated surface, the infiltration being indicated by nodular elevations of the mucosa and inflammatory reaction. The histological picture is that of an extensive invasion of the bladder wall with lawless epithelial cells which here and there retain their papillary arrangement.

Another form of infiltrating carcinoma of the bladder found occasionally was the so-called scirrhus tumor. These tumors which are seldom multiple are found to have on cystoscopic examination a smooth, rounded, somewhat lobulated surface, across which zigzag fissures run. Their intravesical portion is not covered by vegetations or papillae and their base is usually broader than the surface. On microscopic examination numerous small nests of epithelial cells varying greatly in size, shape and staining characteristics and accompanied by a considerable amount of connective tissue are found extensively invading the bladder wall.

The third form of infiltrating carcinoma found on three occasions is almost entirely intramural in location. The surface does not protrude into the bladder cavity, but involves the whole wall, resulting in a greatly thickened bladder of cartilagenous consistence and markedly contracted. On cystoscopy the mucosul surface, because of the presence of numerous small irregular nodules, and sometimes small ulcerative areas, presents a picture not unlike that of ulcerative cystitis. On microscopic examination extensive carcinomatous infiltration of the bladder wall is found.

Only two squamous cell carcinomas were found in our series. These appeared as extensive growths deeply infiltrating the bladder wall. On microscopic study pearly bodies and other characteristics of squamous carcinomas found elsewhere in the body were present.

The one adenocarcinoma found in this study in the gross appeared as an extensive flat ulcerative infiltrating tumor of the bladder wall. On microscopic examination typical gland formation in an extensive stroma of connective tissue was present.

The basal cell carcinoma appeared on cystoscopic examination as a superficial ulcer about the borders of which the vesical mucosa was quite inflamed and congested. On microscopic examination a typical basal cell tumor, the cells of which extended down to, but did not involve the muscularis, was found.

4. *Dermoid Cyst.*—The dermoid cyst was quite typical of similar cysts found elsewhere in the body.

Classification According to Treatment.—In a study of this character, it is necessary to consider the various types of bladder tumors in relation

TABLE 4.

Various Types of Bladder Tumors and Their Treatment. 622 Cases.

TREATMENT	*Number of Cases*	*Benign Papilloma*	*Malignant Papilloma*	*Papillary Carcinoma*	*Infiltrating Carcinoma*	*Papilloma Not Classified*	*Adeno Carcinoma*	*Squamous Cell Carcinoma*	*Basal Cell Carcinoma*	*Dermoid Cyst*
Fulguration alone	59	45	2	5	5	2	..	..	..	..
Radium by cystoscopic application and fulguration	163	37	64	38	22	..	1	1	..	..
Radium applied cystoscopically or this method plus another	59	3	8	22	26	..	..	..	..	..
Radium applied by means other than cystoscopic method	12	..	1	1	10	..	..	..	..	..
Suprapubic implantation of radium into vesi-	35	..	1	14	19	..	..	1	..	..
cal tumor	72	..	3	23	44	..	..	..	1	1
Suprapubic resection of bladder with tumor	37	3	7	11	15	1	..	..	..	..
Suprapubic cauterization of tumor	4	..	..	..	4	..	..	..	..	..
Suprapubic treatment with diathermy	43	2	4	4	32	1	..	..	..	..
Other operative measures	54	1	6	14	33	..	..	..	..	..
X-ray alone or combined with other therapy	84	1	9	9	61	4	..	..	..	..
Cases not treated										
Total	622	92	105	141	271	8	1	2	1	1

to the form of therapy used. In this manner, we are able to determine the most satisfactory way of treating each particular type. In the table below, it will be seen that ten distinct methods were used. We have also included the pathological classification of 84 cases that received no treatment.

Comment.—It is quite evident as one studies this table that in many instances the treatment was not appropriate. Many of the earlier cases were seen before the introduction of the more modern and satisfactory methods of treating bladder tumors. Other patients, because of old age, extreme prostration, extensive suprapubic scars from previous operations and secondary complications due to cardiac disease, renal insufficiency, etc., were not subjected to the more radical yet more appropriate forms of therapy. With the passing of years the introduction of better methods of treatment as well as more advanced ideas in regard to classification of bladder tumors with reference to the most appropriate form of therapy for each type of tumor has brought about much better results.

RESULTS OBTAINED BY VARIOUS METHODS OF TREATMENT

Insofar as possible, each patient has been followed from the time of his or her first appearance in the clinic. Owing to a custom of requesting the patients to return at stated intervals for cystoscopic examination, a large number of them have been observed very closely over a considerable period of time. Those unable to return because of financial or other reasons, have followed by means of questionnaires. The patients reported alive and well are divided into three groups, (1) those found free from tumor on cystoscopic examination; (2) those free from symptoms, and (3) those in whom the tumor recurred and were re-treated and later had negative cystoscopic findings or were symptomless.

I. THE RESULTS OF FULGURATION ALONE IN TREATMENT OF BLADDER TUMORS, 59 CASES

The ages of the patients in this group were as follows: Ten to nineteen, 1; twenty to twenty-nine, 7; thirty to thirty-nine, 11; forty to forty-nine, 14; fifty to fifty-nine, 10; sixty to sixty-nine, 9; seventy to seventy-nine, 4; age not given, 3; total, 59. The youngest patient in our study was a boy 15 years of age who had a benign papilloma of the bladder.

Classification as to type of tumor made by the appearance of the growth on cystoscopic examination was confirmed in many instances by microscopic study of pieces removed before treatment was started. The types of tumor found were: benign papilloma, 45; malignant papilloma, 2; papillary carcinoma, 5; infiltrating carcinoma, 5; tumor designated only as papilloma, 2; total, 59. Results obtained in the treatment of these different types are shown in Table No. 5.

Comment. — Of the 9 patients who died of tumor, 5 had infiltrating carcinomas, and 4 papillary carcinomas. In 5 of these the growths were so extensive that the patient's condition was hopeless from the start. We have found, however, that fulguration alone is of practically no value in treating papillary and infiltrating carcinomas except for hemostatic effect.

One patient having a papillary carcinoma was unimproved when he left the clinic.

One benign papilloma recurred, as such 11 years later, and was again destroyed by fulguration.

TABLE 5.

Results of Fulguration Alone in Bladder Tumors. 59 *Cases.*

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	..	7	1	1	1	2	1	..	3	..	2	18
2. Symptomless	..	..	2	4	..	1	..	1	4	..	1	13
3. Recurred, re-treated, well	..	..	..	..	..	..	..	..	..	..	1	1
Recurred, unimproved	..	..	1	..	..	..	..	..	..	..	..	1
Recurred, dead	8	..	1	..	..	..	..	..	..	..	..	9
Dead, other causes	4	..	..	1	..	..	1	..	1	1	1	9
Not followed	8	..	..	..	..	..	..	..	..	..	..	8
Total	20	7	5	6	1	3	2	1	8	1	5	59

Since 45 of the 59 cases treated by fulguration were benign papillomas, we have analyzed them separately. The results are shown in the following table:

TABLE 6.

Results of Fulguration Alone on Benign Papilloma of the Bladder. 45 *Cases.*

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	..	7	1	1	1	2	1	..	2	..	..	15
2. Symptomless	..	..	2	3	..	1	..	1	5	..	2	14
3. Recurred, retreated, well	..	..	1	..	..	..	..	.	..	..	1	2
Recurred, unimproved	..	..	..	..	..	..	..	.	..	.	..	..
Recurred, dead	..	..	..	..	..	..	.	..	.	..	..	..
Dead, other causes	4	..	..	1	..	..	1	..	1	1	1	9
Not followed	5	..	..	..	..	..	..	..	..	..	..	5
Total	9	7	4	5	1	3	2	1	8	1	4	45

Comment.—Of the 40 patients that were followed, not one died of tumor. Nine died of other causes, and 5 were not followed. These findings demonstrate quite conclusively that benign tumors can be destroyed by fulguration. In two instances the growth recurred, and was again destroyed by this method.

II. Results Obtained by Radium with Cystoscopic Applicator and Fulguration in Bladder Tumors. 163 Cases

Most of these patients received 100 milligram hours of radium with each treatment. Some of them, especially those in which the growth was extensive, and the type of tumor quite malignant, received 200 milligram hour exposures of radium. The malignant papillomas received on the average about 500 milligram hours of radium and then were destroyed by fulguration. In the very recent cases the malignant tumors were destroyed by fulguration and then radium was applied to the base of the tumor to prevent recurrence. The more malignant the tumor and the greater its size, the more radiation the patient received before fulguration was attempted.

The ages of the patients in this group were as follows: Twenty to twenty-nine, 2; thirty to thirty-nine, 13; forty to forty-nine, 28; fifty to fifty-nine, 44; sixty to sixty-nine, 43; seventy to seventy-nine, 20; age not given, 13; total, 163 cases. It is interesting to note that the onset occurred in more than half of the patients between fifty and sixty-nine years of age. The more advanced age of onset in this group, as compared to the previous one, can be explained by the increase in malignant types.

The types of tumors in this group determined by cystoscopic or microscopic examination were as follows: Benign papilloma, 37; malignant papilloma, 64; papillary carcinoma, 38; infiltrating carcinoma, 24; total number of cases, 163. Under the type of infiltrating carcinoma there were one adenocarcinoma and one squamous cell carcinoma.

The results obtained by treatment are designated in Table No. 7.

Summary.—Of the 32 patients in this group that died of tumor, 10 had papillary carcinoma, 17 infiltrating carcinoma, 4 malignant papilloma, and 1 adenocarcinoma. Over 46 per cent of the patients were well one year or more. Eleven per cent of the patients died from some cause other than tumor, and consequently these should be added to the 46 per cent that were well one year or more. Not one of the 37 patients having benign papillomas died of tumor. Ten of the 39 patients having papillary carcinoma died of tumor, while 3 were unimproved and 7 were not followed. Only one infiltrating carcinoma was well one year or more.

TABLE 7.

Results Obtained by Radiation and Fulguration in Bladder Tumors. 163 Cases.

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	3	13	9	4	2	4	2	..	2	..	..	39
2. Symptomless	2	2	2	4	3	4	4	2	..	4	2	29
3. Recurred, re-treated, well	2	..	1	3	1	1	..	1	..	1	3	13
Recurred, unimproved	2	6	2	1	..	..	..	..	..	..	..	11
Recurred, dead	7	11	6	4	2	1	..	..	1	..	..	32
Dead, other causes	1	6	..	2	3	2	2	..	..	2	..	18
Not followed	21	..	..	..	..	..	..	..	..	..	..	21
Total	38	38	20	18	11	12	8	3	3	7	5	163

There were so many malignant papillomas in this group that it seemed advisable to include a separate table giving the results obtained by treatment of this particular type. (See Table 8.)

TABLE 8.

Results of Radium Cystoscopically plus Fulguration in Malignant Papilloma 62 Cases

	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—											
1. Cystoscopic examination	6	5	4	1	1	2	..	..	..	..	19
2. Symptomless	..	..	4	3	1	1	1	..	2	2	14
3. Recurred, re-treated, well	..	1	1	..	..	..	..	..	..	2	4
Recurred, unimproved	4	1	..	1	..	..	..	..	..	..	6
Recurred, dead	1	2	..	..	..	..	..	1	..	..	4
Dead, other causes	3	..	..	2	..	1	..	..	1	1	8
Not followed	9	..	..	..	..	..	..	..	..	..	9
Total	23	9	9	7	2	4	1	1	3	5	62

Summary.—In 2 of the 4 cases reported dead from malignant papilloma the growths were destroyed but recurred a second time as a definite infiltrating carcinoma resulting in metastasis and death. Six patients were unimproved by treatment and 9 were not followed. The remainder were well one year or more or died from other causes. It is, therefore, quite evident that the malignant papilloma usually respond very well to radium plus fulguration.

III CASES TREATED WITH CYSTOSCOPIC RADIUM APPLICATOR ALONE OR PLUS OTHER METHODS OF APPLICATION. 59 CASES

In most of these cases the radium could be placed directly upon the bladder tumor by means of Young's cystoscopic applicator. In a number of instances the growth had extended into the posterior urethra, making necessary urethral applications. In other cases, especially where induration of the bladder wall could be felt on rectal or vaginal examination, the radium applied by cystoscopic applicator was reinforced by rectal or vaginal applications.

The ages of the patients were as follows: Thirty to thirty-nine, 3; forty to forty-nine, 9; fifty to fifty-nine, 19; sixty to sixty-nine, 14; seventy to seventy-nine, 10; age not given, 4; total, 59 cases.

The type of tumor as determined by cystoscopic or microscopic examination was as follows: Benign papilloma, 3; malignant papilloma, 8; papillary carcinoma, 22; infiltrating carcinoma, 26; total number of cases, 59.

The results obtained by this treatment are shown in Table No. 9.

TABLE 9.

Results Obtained by Cystoscopic Application of Radium Alone or Plus Other Methods of Application. 59 Cases.

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	Total
Alive and well—							
1. Cystoscopic examination	3	..	1	1	..	..	5
2. Symptomless	..	..	1	..	2	3	6
Recurred, unimproved	..	2	..	..	..	..	2
Recurred, dead	12	12	2	..	2	1	29
Dead, other causes	1	2	2	..	..	..	5
Total							59

Summary.—Of the 59 cases in this group 11 were well, six of them 3 years or more, two 2 years and three less than 1 year after beginning treatment. In addition there were two patients with benign papilloma that were not classified as well, although no tumor was present when discharged. One of these was killed in an accident one year later, and the other was not followed. These have been classified under deaths due to other causes. Two cases of infiltrating carcinoma were well 5 years or more, and one less than a year. Two patients having papillary carcinoma were well 4 years or more and two were found to be free from tumor on cystoscopic examination less than a year after their first treatment. Three cases of malignant papilloma were well 3 years or more. The high mortality in this group was due to the fact that almost half of the tumors were infiltrating carcinomas. The fact that three infiltrating carcinomas, however, were apparently destroyed by this method, indicates that occasionally this type yields to radium alone.

IV. Cases Treated with Radium by Means Other Than Cystoscopic Application.

12 Cases

In all of these cases the growth was so extensive as to make them practically hopeless from the start.

The ages of the patients were as follows: Thirty to thirty-nine, 1; forty to forty-nine, 3; fifty to fifty-nine, 3; sixty to sixty-nine, 1; seventy to seventy-nine, 1; age not given, 3; total number of cases, 12.

Ten of the 12 tumors were infiltrating carcinomas; one was an extensive papillary carcinoma and one a very extensive malignant papilloma.

The radium was applied as follows: Massive doses to the abdominal wall, 3; through a fresh suprapubic wound or a fistula, 7; through the rectum, 1, and through a suprapubic fistula and to rectum, 1.

The results obtained were most unsatisfactory. Nine of the patients died in less than a year, and the others within a year from the time treatment was started.

V. Results Obtained by Suprapubic Implantation of Radium into Vesical Tumor.

35 Cases

The ages of the patients were as follows: Thirty to thirty-nine, 3; forty to forty-nine, 2; fifty to fifty-nine, 16; sixty to sixty-nine, 7; seventy to seventy-nine, 5; age not given, 2; total, 35.

The following types of tumors were found: Malignant papilloma, 1; papillary carcinoma, 14; infiltrating carcinoma, 19, and squamous cell carcinoma, 1.

Methods of Implantation.—The bladder was exposed, partially mobilized and then opened very wide, great care being exercised to avoid the tumor. The danger from implantation of tumor tissue was minimized as much as possible by covering the normal bladder mucosa about the base of the tumor with moist bichloride of mercury packs. In 21 cases the tumor was destroyed to the bladder level by cauterization and then implanted with radium. In 14 cases the tumor was implanted with radium without preliminary cauterization. In the first few cases emanation seeds of 2 or 3 millicuries were implanted and allowed to remain in situ. The dosage from these proved to be too great and later emanations of 1 millicurie were used. During the last five years, however, small platinum needles containing 1 milligram of the radium element have been implanted into the tumor and removed after 48 hours or more. Where the growth was extensive, and the infiltration quite deep, the radiation obtained by the needles was reinforced by the use of radium spears containing 10 to 12½ milligrams of the element. We have at the Clinic 20 platinum needle points each containing one milligram of radium, three spears of 10 milligrams each, and two of 12½ milligrams each. In most cases all of these were used. The details of use are given in Young's Practice of Urology. We also use two tubes containing 100 milligrams of radium element in the urethra, when the carcinoma invades the vesical neck. The patient received on an average about 2,400 milligram hours of radium. In this manner the tumor and the bladder tissue approximating it received a large amount of radiation. The results obtained by this method are summarized in Table 10.

TABLE 10.

Suprapubic Implantation of Radium into Vesical Tumor.
35 Cases.

	Less than 1 yr.	*1 yr.*	*2 yrs.*	*3 yrs.*	*4 yrs.*	*5 yrs.*	***Total***
Alive and **well—**							
1. Cystoscopic examination	..	1	1	1	..	..	3
2. Symptomless	..	1	..	..	..	1	2
3. Recurred, re-treated, well	..	1	..	..	..	..	1
Recurred, unimproved	..	..	2	..	..	..	2
Recurred, dead	11	11	1	..	..	..	23
Dead, other causes	3	..	..	..	..	..	3
Not followed	1	..	..	..	..	..	1
Total							35

Summary.—In this group six patients are well 1 year or more. One patient, who had an infiltrating carcinoma, is well more than 5 years and two others are symptomless more than 5 year. Three patients who had papillary carcinoma were found to be free from tumor on cystoscopic examination 1, 2 and 3 years after operation. One patient whose tumor was cauterized before it was implanted, died of streptococcus hemolyticus septicemia a short time after his operation.

Considering that all the tumors in this group were extensive and situated in positions which made resection impossible, the results obtained warrant further attempts with this form of therapy.

VI. Cases Treated by Suprapubic Resection of Bladder Tumor. 72 Cases

The ages of the patients in this group were as follows: Thirty to thirty-nine, 2; forty to forty-nine, 8; fifty to fifty-nine, 23; sixty to sixty-nine, 29; seventy to seventy-nine, 6; age not given, 4; total, 72.

The type of tumor in these cases was as follows: Malignant papilloma, 3; papillary carcinoma, 23; infiltrating carcinoma, 44; dermoid cyst, 1; basal cell carcinoma, 1; total, 72.

In the table No. 11 the results of treatment are shown:

TABLE 11.

Results Obtained by Suprapubic Resection of Bladder Tumor. 72 Cases.

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	..	2	..	..	..	1	2	.	..	1	..	6
2. Symptomless	..	2	1	2	2	2	2	1	1	1	4	18
3. Recurred, re-treated, well	..	..	..	1	..	1	..	..	..	..	..	2
Recurred, unimproved	1	2	..	..	..	..	..	..	..	..	..	3
Recurred, dead	14	14	3	..	..	1	..	1	..	..	..	33
Dead, other causes	..	..	..	1	2	..	1	..	..	..	..	4
Not followed	5	1	..	..	..	..	..	..	..	..	.	6
Total	20	21	4	4	4	5	5	2	1	2	4	72

Summary.—In all cases except those in which the growth was small and located on the anterior wall, the bladder was mobilized as much as possible before resection of the tumor was started. In a number of cases transperitoneal resection was necessary.

The tumors were located as follows: Anterior wall, 15; lateral walls, 19; posterior wall, 16; trigone and ureteral orifices, 15, and vesical orifice, 7.

When one considers that 62 per cent of the cases treated in this group were infiltrating carcinomas, and 32 per cent were papillary carcinomas, the results obtained by this form of therapy were surprisingly good. There are 26 patients well one year or more, 16 of them 5 years or more. Also 4 other patients died from other causes three years or more after operation, and insofar as we were able to determine, had no bladder symptoms at time of death. Of 26 patients well one year or more, 13 had infiltrating carcinomas, 9 papillary carcinomas, 3 malignant papillomas and 1 a dermoid cyst. In two instances the growth recurred, but responded to radium plus fulguration.

The ureter was transplanted 15 times. Four of these patients are alive 9 years or more and 2 died from other causes several years after the operation.

There were 6 post-operative deaths. Of these 2 were due to pulmonary emboli and 1 to thrombophlebitis. Such findings as these emphasize the importance of exercising the utmost care in all operative manipulations.

This clearly demonstrates that resection, where possible, is the most satisfactory method of treating infiltrating carcinomas of the bladder.

VII. Cases Treated by Suprapubic Cauterization of Tumor. 37 Cases

In this group the growth was exposed and the surrounding mucosa protected in the same manner described for resection of bladder tumor. If the pedicle was long the outer surface of the tumor was seared with the cautery blade, and then the pedicle was cut across. The remaining stump of the pedicle and the infiltrated portion of the bladder were deeply cauterized. In the flat type of growth the surface as well as the infiltrated portion of the bladder was immediately destroyed by deep cauterization. In a number of instances the vesical orifice was involved and in these cases extensive cauterization of this region was carried out. Suprapubic drainage was used in each case.

The ages of these cases were as follows: Thirty to thirty-nine, 15; forty to forty-nine, 4; fifty to fifty-nine, 8; sixty to sixty-nine, 18; seventy to seventy-nine, 3.

The types of tumor diagnosed by cystoscopic and microscopic examinations and verified at operation were as follows: Papilloma, not classified, 1; benign papilloma, 3; malignant papilloma, 7; papillary carcinoma, 11, and infiltrating carcinoma, 15.

The results obtained are shown in Table No. 12.

TABLE 12.

Results of Cauterization Alone in Bladder Tumors. 37 Cases.

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	..	1	1	..	..	..	..	..	..	..	1	3
2. Symptomless	..	..	1	..	1	..	2	..	2	..	1	7
3. Recurred, re-treated, well	..	1	..	..	..	..	..	..	..	1	..	2
Recurred, unimproved	..	..	..	1	..	..	..	..	..	..	..	1
Recurred, dead	5	12	3	..	..	..	..	..	..	..	1	21
Dead, other causes	2	..	..	..	..	..	..	..	..	..	..	2
Not followed	1	..	..	..	..	..	..	..	..	..	..	1
Total	8	14	5	1	1	0	2	0	2	1	3	37

Summary.—There are 12 patients in this group well one year or more after operation. Only two of these had infiltrating carcinomas. Two patients who had papillary carcinomas are well 4 years or more. The rest of the patients that are well one year or more had either benign or malignant papillomas, types that respond very well to radium plus fulguration. These, in the light of our present knowledge regarding the treatment of bladder tumors, received much more radical therapy than necessary. Two patients died from thrombophlebitis and one of septicemia shortly after operation. In all three of these cases radium was not used and it was necessary to cauterize very deeply, a procedure which evidently adds greatly to the postoperative risks. These findings seem to indicate that better results can be obtained by cauterizing the tumor down to the level of the bladder mucosa and then implanting the deeper portions of the growth with radium, than with deep cauterization alone.

VIII. Results Obtained by Suprapubic Treatment with Diathermy. 4 Cases

Insofar as the exposure of the tumor and the protection of the normal bladder mucosa were concerned, the method employed here was the same as in cauterization of bladder tumors. In one instance the pedicle was cut across with the endotherm knife and the infiltrated portion of the bladder treated by deep diathermy. In the remaining three cases flat infiltrating carcinomas were found and apparently destroyed by deep diathermy.

The patients were 47, 57, 58 and 71 years of age.

All four of the tumors were infiltrating carcinomas.

It is only fair to state that no worthwhile conclusions can be drawn from a series of four cases. One patient was free from tumor a year after his operation; two others died of tumor within a year, and there was one postoperative death. These findings are not in keeping with those of Dr. Corbus,[6] who reports only four deaths from tumor in a series of 31 cases treated by this method. Unfortunately, the tumors in that series were not classified as to type and, therefore, one is unable to draw any conclusions as to the effect of diathermy on infiltrating carcinomas of the bladder.

IX. Results Obtained by Other Operative Measures. 43 Cases

The ages of these 43 patients were as follows: Thirty to thirty-nine, 2; forty to forty-nine, 9; fifty to fifty-nine, 10; sixty to sixty-nine, 13; seventy to seventy-nine, 4; eighty to eighty-nine, 2; ages not given, 3.

The following types of tumor were found: Benign papilloma, 2; malignant papilloma, 4; papillary carcinoma, 4; infiltrating carcinoma, 32; and papilloma not classified, 1.

The methods of procedure employed are given in Table No. 13.

TABLE 13.

Various Other Operative Measures Employed in the Treatment of Bladder Tumors. 43 Cases.

Suprapubic drainage	22
Excision of tumor	4
Curettage of tumor	3
Suprapubic fulguration of tumor	2
Incomplete resection	2
Tumor twisted off with clamps	2
Removal by torsion and forceps	1
Excision and curettage of base	1
Excision of tumor in a diverticulum	1
Punch operation for obstruction	1
Perineal prostatectomy and curettage of tumor	1
Suprapubic exploratory	1
Ureterostomy for obstruction	1
Suprapubic operation for extravasated urine	1
Total	43

Summary.—Three patients in this group were cured of tumor. One of these had a benign papilloma which was twisted from the bladder wall and did not recur. A malignant papilloma which was excised recurred but was destroyed by fulguration. In the third case, a papilloma was fulgurated and then excised. This patient was well seven years after the operation. All three of these patients could have been cured by radium plus fulguration.

The presence of such a variety of operations can be explained by the fact that many of the patients visited the clinic before the more satisfactory methods of treating bladder tumors had been developed. For this reason and also because almost 80 per cent. of the patients had extensive infiltrating carcinomas, the results obtained were very unsatisfactory.

X. Cases Treated by X-Ray Alone and Combined with Some Other Form of Therapy. 54 Cases.

The ages of the patients in this group were as follows: thirty to thirty-nine, 1; forty to forty-nine, 11; fifty to fifty-nine, 16; sixty to sixty-nine, 15; seventy to seventy-nine, 7; eighty to eighty-nine, 1; ages not given, 3.

The following types of tumor were found: Benign papilloma, 1; malignant papilloma, 6; papillary carcinoma, 14; infiltrating carcinoma, 33.

Deep X-ray was combined with radium or radium plus fulguration in all but 10 cases in this group. In these cases the growth was so extensive as to prevent the satisfactory application of radium or the introduction of the radium instrument so painful as to make its use impossible. The results obtained are shown in Table No. 14.

TABLE 14.

Results of X-ray Alone and Combined with Some Other Form of Therapy. 54 Cases.

	Less than 1 yr.	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs. or more	Total
Alive and well—												
1. Cystoscopic examination	..	..	3	..	1	..	..	..	..	1	..	5
2. Symptomless	..	2	1	1	..	..	..	..	..	..	..	4
3. Recurred, re-treated, well	..	1	2	..	..	..	..	.	..	1	..	4
Recurred, unimproved	5	..	1	1	..	..	..	..	..	..	..	7
Recurred, dead	10	18	1	1	1	..	..	..	..	..	..	31
Dead, other causes	..	..	..	..	..	..	..	..	..	..	..	..
Not followed	3	..	..	..	..	..	..	..	..	..	..	3
Total	18	21	8	3	2	0	0	0	0	2	0	54

Summary.—Thirteen patients are well one year or more after their first treatment. Of these 1 patient had a benign papilloma, 4 malignant papilloma, 5 papillary carcinoma, and 3 infiltrating carcinoma. Inasmuch as all of these patients received radium applications before the deep X-ray therapy, it is difficult to estimate accurately the part played by the latter in the destruction of the growths. Our other studies have shown that benign and malignant papillomas respond to radium alone. There were also many papillary carcinomas and a few infiltrating carcinomas cured by the same therapy, so a better estimate of the curative value of deep X-ray can be obtained by a study of cases receiving only that particular therapy. There were 10 such cases and all of them died of tumor. However, most of them were so advanced as to be hopeless from the start.

Because some patients react violently to deep X-ray, it is necessary to follow each case very closely. There were 3 cases in which exitus was apparently hastened by this therapy.

In the cases that had received preliminary treatment with radium, the deep X-ray therapy seemed to be most effective. Although deep X-ray frequently stopped bleeding, radium applied cystoscopically gave better results in this respect. Deep X-ray diminished greatly pains due to nerve involvement.

Although deep X-ray therapy is another adjunct in the armamentarium of the urologist, it is of little value when used alone in the treatment of the more advanced infiltrating growths.

XI. CASES NOT TREATED. 84 CASES.

For the sake of completeness and also to illustrate the unfortunate termination of those cases receiving no treatment, this group is included.

The ages were as follows: Thirty to thirty-nine, 10; forty to forty-nine, 14; fifty to fifty-nine, 21; sixty to sixty-nine, 17; seventy to seventy-nine, 16; eighty to eighty-nine, 2; ages not given, 4.

The type of tumor present was as follows: Benign papilloma, 1; malignant papilloma, 9; papillary carcinoma, 9; infiltrating carcinoma, 61; papilloma, not classified, 4.

It was impossible to follow 23 of these patients, but of the others, 36 died within one year and 25 within two years.

Although 61 of the patients had infiltrating carcinomas, a number of the patients could possibly have been cured had they not refused treatment.

CONCLUSIONS

The age of onset in this series of 622 cases of bladder tumors varied between 15 and 83 years of age.

Benign and malignant papillomas, for the most part, occurred in patients between 40 and 59 years of age, while the majority of the carcinomas appeared between the ages of 50 and 69.

The types of bladder tumors found in this series were classified as follows: Benign papilloma, 15 per cent.; malignant papilloma, 17 per cent.; papillary carcinoma, 22 per cent.; infiltrating carcinoma, 44 per cent.; papilloma not classified, 8 cases; squamous cell carcinoma, 2 cases; adeno-carcinoma basal cell carcinoma and dermoid cyst, 1 case each.

The essential factor in the treatment of bladder tumors is their proper classification as to the type of growth. This can best be accomplished by means of a thorough knowledge of the cystoscopic picture of each type of tumor supplemented by histological findings, presence of induration on rectal examination and the presence or absence of metastasis.

The tumor having been properly classified, it is not, as a rule, difficult to select the most appropriate form of therapy.

Benign papillomas always respond to fulguration alone, but these tumors often disappear much more rapidly when cystoscopic applications of radium are used in addition to fulguration. These tumors recur, and often it is necessary to have the patients return from time to time for cystoscopic examination over a period of several years after the primary growth has been destroyed.

Malignant papillomas very frequently respond to fulguration alone, but much more satisfactory results are obtained if the tumor is first thoroughly treated by cystoscopic applications of radium and then fulgurated. These tumors recur more frequently than the benign type and this necessitates the patient's return for cystoscopic examination at intervals of every few months.

Papillary carcinomas, if not too extensive, usually respond to radiation plus fulguration, and should first be subjected to this combined therapy. In a few cases where this therapy has failed the tumor has responded to X-ray. Should the methods mentioned above fail, the tumor should be resected if it is a favorable location for such a procedure. If its location is unfavorable, it should be cauterized superficially and implanted with radium or treated with deep diathermy.

All infiltrating carcinomas, if their location is favorable and the patient's general condition permits, should be resected. Where this is impossible the combined radium and deep X-ray therapy should be tried and if this fails, the tumor should be treated by cauterization and implantation of radium, if it is not too extensive.

The value of diathermy as a therapeutic measure in the treatment of infiltrating carcinomas of the bladder has not yet as yet been definitely established.

In our series deep X-ray, when used alone, has been disappointing from the standpoint of tumor destruction. However, it has been of great value in diminishing the intensity of pain due to nerve involvement.

This study confims previous reports from this clinic showing that excellent results may be obtained by cystoscopic applications of radium and fulguration in definitely malignant tumors of the bladder when not too far advanced.

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LIVER FEEDING AS A THERAPEUTIC AGENT IN SUPPURATIVE CONDITIONS. A PRELIMINARY REPORT

By **HOMER L. NELMS, M.D., ALBANY, N. Y.**

FOLLOWING the experimental work of Robscheit, Robbins and Whipple on the favorable influence of a liver diet on blood regeneration and the clinical application of this dietary principal in the management of pernicious anemia by Minot and Murphy, a new and effective therapeutic agent was at once placed at our disposal. The literature thus far is scant on the effectiveness of these measures but there can be no doubt that its use has a striking stimulating effect on the blood forming organs. Previous observations have dealt mostly with the influence of liver in pernicious anemia, a comparatively rare condition compared to the great mass of secondary anemias that physicians and surgeons see. With this thought in mind we have observed the influence of liver feedings in severe secondary anemias especially those following long drawn out suppurative conditions. The end results are as striking in this group of cases as in primary anemia and its general application opens up a much wider field of usefulness.

It is a well known fact that suppurative conditions anywhere have a tendency to deplete the blood; there is a decrease in the amount of hemoglobin and the number of red blood cells, although not in the same proportion as in primary anemia; however, the effects on the individual are the same, a prolonged convalescence and the ever-present susceptibility to intercurrent infections.

We believe that the use of liver shortens the period of convalescence, increases the patient's resistance and has a favorable influence on the course of the disease.

Our first observation was made on a patient with a suppurative arthritis who later developed a septicemia, the blood cultures being positive. The primary focus was drained and the general condition treated by supportative measures. At the end of ten weeks the temperature had returned to normal, there was no drainage, but the patient was extremely emaciated and suffering from a severe secondary anemia. The red blood count was 3,630,000; hemoglobin 58% and white blood count 15,000. The appetite was poor but the patient was allowed what she could take from a 3500 calorie diet and given injection of sodium cacodylate gr. 1, every other day. This was kept up for a period of about two weeks, with very little improvement in the general condition. By this time the blood count had dropped to R.B.C. 3,400,000 and the hemoglobin 50%. The W.B.C. remained 15,400. The temperature was still normal and a second blood culture was taken but no growth obtained after five days' incubation. It was at this stage that we decided to try the effects of liver feedings with iron in the form of Blaud's pills, a procedure that had been recommended in pernicious anemia. There was a striking improvement in the patient's physical condition and a corresponding change in the blood picture as noted in the accompanying table.

Date	*R.B.C.*	*Hg. %*	*W.B.C.*
Feb. 17	3,400,000	50	15,430
Feb. 23	3,600,000	55	11,400
Mar. 3	4,000,000	60	10,000
Mar. 17	4,600,000	70	9,860
Apr. 1	5,650,000	80	9,320

We can not prove that these changes would not have taken place anyway, but on the other hand, here was a patient that had had the usual supportive measures for her condition with the possible exception of blood transfusions and in spite of them all did not gain very rapidly. The fact that there was a definite improvement in the clinical condition accompanied by a corresponding change in the blood picture and that these improvements dated from and accompanied the addition of liver and iron to the diet, we feel are matters that must seriously be considered as playing some part in the outcome of this case.

Our second observation was made on a patient that developed a wound infection following an interval appendix. This was later complicated by a septic sore throat, acute otitis media, mastoiditis and erysipelas. One month after operation the R.B.C. was 4,000,000 and the Hg. 45%. W.B.C. 11,400. Liver and Blaud's pills were then ordered and within two weeks the Hg. had jumped to 60% and the R.B.C. to 4,600,000. Two weeks later the R.B.C. was 5,000,000 and the Hg. 80%, and the patient is now no worse from her various experiences.

Encouraged by these and a few less striking cases, the thought has occurred that if secondary anemia can be cured by the use of liver and iron, can it not be prevented, or at least in some degree controlled by the same agents? Working on this theory we are now adding liver in liquid form and Blaud's pills to the otherwise general diet in all suppurative conditions. This is done immediately after the surgical indications have been met and the patient can tolerate a general diet. That there is some justification for this procedure is illustrated by the following case.

Mr. H. R. age 29, was admitted to the hospital with an intense cellulitis of his arm extending from the wrist to the shoulder. Duration of symptoms four days. His temperature was 104, pulse 120 and for the past twelve hours he had been having chills. On examination there was a definite area of softening near the elbow so that thorough drainage was indicated. He was given a general anesthetic and six through and through drainage tubes placed in the arm. His temperature subsided and one week after operation the R.B.C. was 4,400,000; Hg. 70%; W.B.C. 14,500. This man was given liver and iron at once and two weeks later the R.B.C. was 4,800,000; Hg. 87%, and W.B.C. 9,250. He left the hospital at the end of three weeks. There was no drainage from the arm except, of course, from the granulating areas at the site of the drainage tubes. It was agreed by all who saw this man that his convalescence was an especially striking one.

One swallow does not make a summer; a few encouraging reports from one lone source do not establish a surgical principle and we admit that our observations are too recent to draw any definite conclusions. This report therefore, is in no measure conclusive, we make it in the hope that it will stimulate others in this line of endeavor and that the possibilities of this dietary adjunct may not be long overestimated.

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PHOTOGRAPHS OF THE FUNDUS OCULI, NORMAL AND PATHOLOGICAL CONDITIONS, WITH CASE HISTORIES, SINGLE AND STEREOSCOPIC VIEWS

By ARTHUR J. BEDELL, M.D., ALBANY, N. Y.

The Lucien Howe Prize Essay of the Medical Society of the State of New York, 1927

ADVANCES in the art of medicine are always followed by scientific progress; so that now as a result of the epoch-making achievements of our professional predecessors, we can not only see the interior of the eye but also photograph it.

Ever since the introduction of the ophthalmoscope, ophthalmologists and clinicians have wished for a method of recording the appearance of the fundus. As a result, many cameras have been devised, notably those by Wolfe and Thorner. Both of these were laboratory instruments and were never used to any extent.

THE CAMERA OF DIMMER

In 1911 Dimmer described his instrument and reported in several communications his findings, but unfortunately, his instrument was large, cumbersome and in no way adapted to routine clinical procedures. The illustration (Fig. 1) shows the apparatus in use. One look is enough to convince a doubter that the average patient could never be placed before it. Dimmer's original work did much to increase interest in and add to the possibilities of photographing the eye grounds, but did little to advance the clinical side of photography.

SALOMONSON'S RECORDING OPHTHALMOSCOPE

Salomonson, of Amsterdam, devised what was called a recording ophthalmoscope. His original instruments were modified and improved until at the meeting of the American Medical Association at Atlantic City in May, 1925, the camera illustrated was shown (Fig. 2). By means of this instrument, it was possible to make a photograph, about 44 mm. in diameter. The instrument consisted of two optical systems, one for illuminating and the other for viewing and photographing the fundus. A beam of light from a small 6 ampere arc lamp passed through a condenser and a lens and formed an image of the condenser in the plane of an aplanatic aspherical lens. This illuminating beam was in turn reflected into the eye. When the instrument was in use, the fundus was focused under subdued light and the actual photograph was taken by the simultaneous exposure of the eye and the plate to the intense light for from 0.05 to 0.2 seconds. In practice, it was found that an exposure of 0.1 second generally sufficed. The design of the optical system eliminated all secondary reflections from the cornea and from the opthalmoscope lens. The apparatus was mounted on a heavy stand and provided with three adjustments, so that it could be carefully adjusted close to the eye under observation. The pictures we have seen that were made with the instrument leave much to be desired.

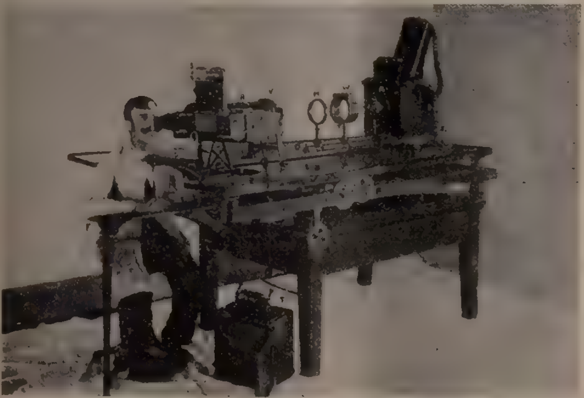
Fig. 1—The Camera of Dimmer.

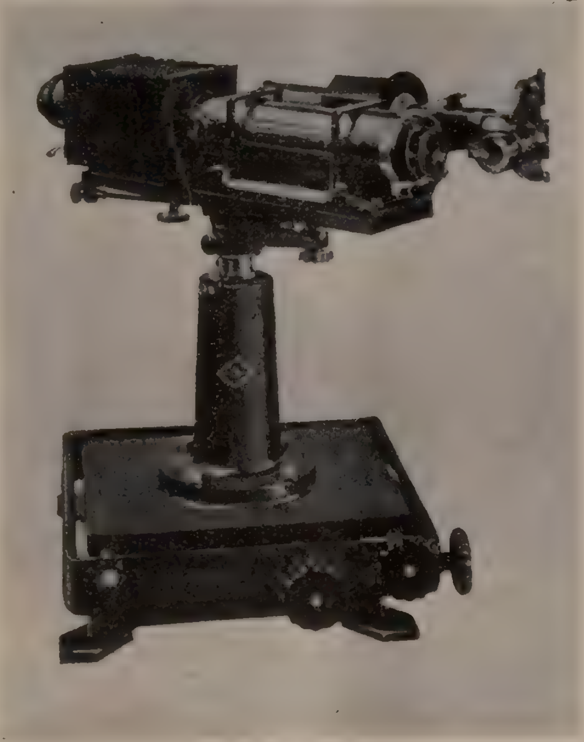
Fig. 2—Salomonson's Recording Ophthalmoscope.

In 1922, at an International Congress of Ophthalmology held in Washington, Nordenson of Upsala presented some pictures of the fundus made with his camera. After many modifications, the instrument was placed on the market in 1926.

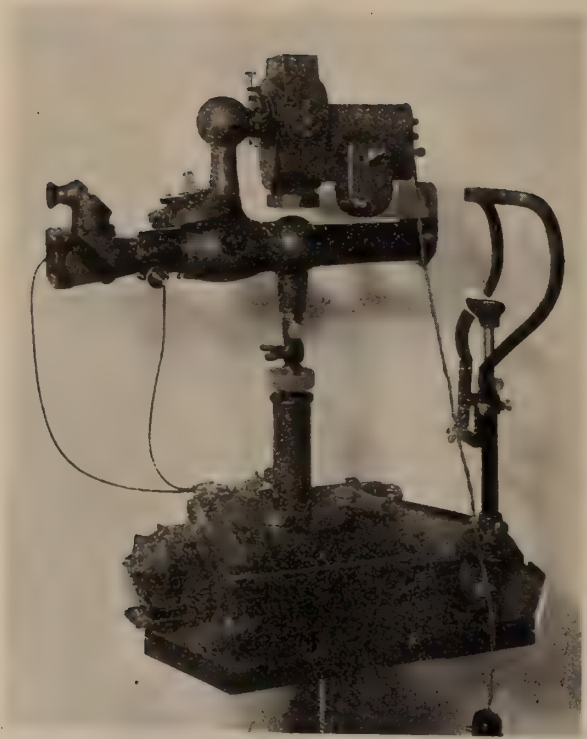

Fig. 3—The Nordenson Camera, right side.

The Nordenson Camera

The Nordenson camera is based on the Gullstrand principle used in central ophthalmoscopy. The instrument is placed on the ordinary ophthalmological stand with the usual compound slide. The illustrations 3, 4 and 5 show the details of the instrument. The source of illumination is a 5 ampere arc lamp, which must be on direct current if the best results are to be obtained. The working drawing shows the course of the light ray passing from X through the condensing lens, reflected by the prism through a filter of iron oxyfal glass through another filter on the shutter, through a reflecting prism to and finally through the condensing lens into the patient's eye. The course of the depicting rays is shown by a line extending from the patient's eye. The rays are reflected by a silvered mirror through two condensing lenses into the observing ocular.

The carbon arc must be so placed as to insure the most intense brilliance. Occasionally, the arc may be maintained by the automatic clock-work on the side of the instrument, but in practice we find that it is better to adjust the carbons by the hand screw.

The fundus must be accurately focused on the plate, which is done by moving the slide screw recognized as being in front of the camera box. The time of exposure is controlled by a mechanical spring action. The actual time is automatically arranged by the position of an arrow on the dial. This dial has numbers ranging from "0" to "6," which correspond to 1-8 to 1-22 of a second. The large projecting column on the plate consists of two knurled nuts. The upper one regulates the spring action and the lower one is set for the exposure by placing the arrow on its side at the given mark.

Method of Examination

The camera can only be used in a black room. The patient's pupil must be widely dilated, the patient comfortably placed in front of the instrument with the chin and forehead under control. The photographic plate is placed in the opening of the camera box, the light is focused as a narrow crescent on the lower pupillary margin of the iris and the patient directed to look in the proper direction, so that the portion of the fundus desired may be directly illuminated. Fixation is maintained by watching a small cross of light, which is adjusted to the patient's eye.

The fundus is accurately focused through the eye piece, so that the picture is taken under the direct observation of the examiner, who sees the fundus up to the moment the exposure is made. If it is impossible to get a clear image of the fundus, one of the auxillary lenses, a +75, a +1.50, a —75 or a —1.50, which are in a revolving disc just beneath the shutter box, may be turned into position. By pressing the double shutter release, which in the illustration is seen lying on the compound slide, the spring action of

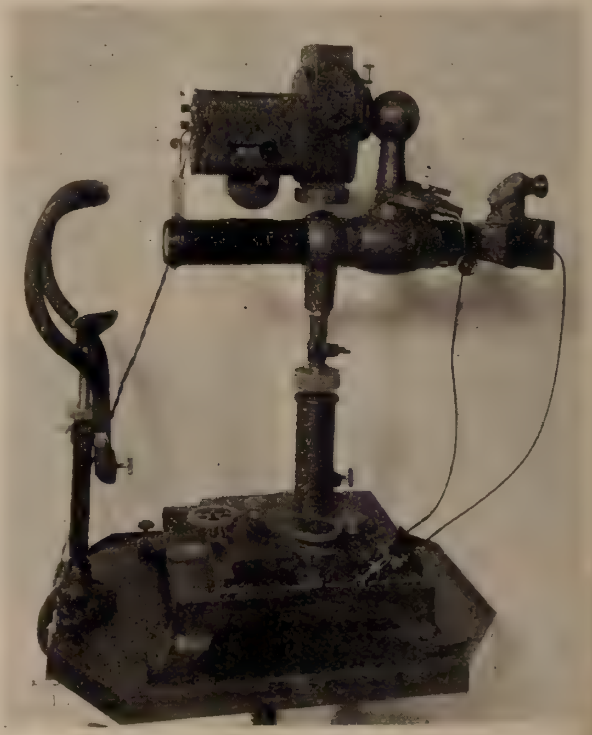

Fig. 4—The Nordenson Camera, left side.

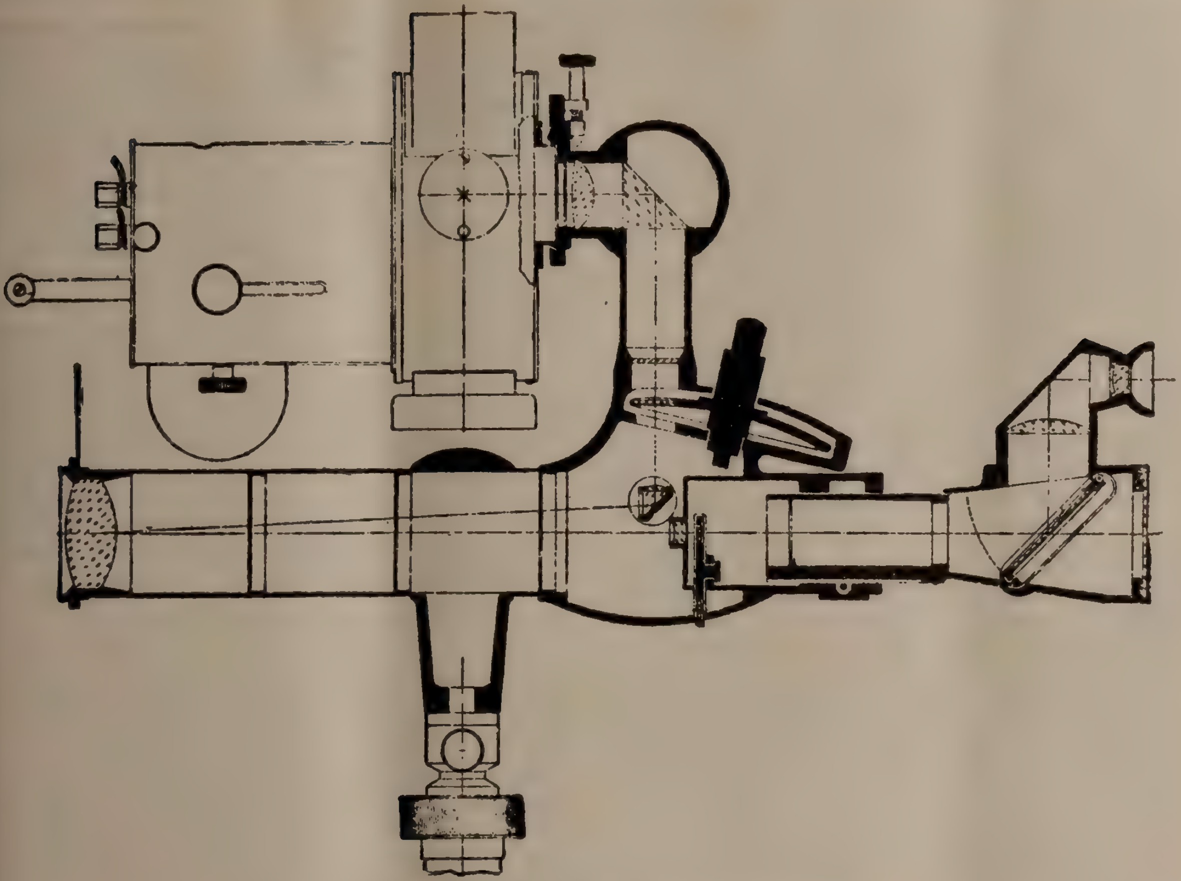

Fig. 5—Phantom View of the Nordenson Camera.

the time diaphragm swings the shutter filter out of place and allows the intense light to flood the interior of the eye and by pushing the reflecting shutter up, exposes the plate. Immediately after the exposure, the patient complains of a dark spot, which disappears in a moment if the eye is kept closed.

If a good picture is to be secured, it is absolutely necessary that the patient's eye remain stationary, that the photographic plate be rapid and that the fundus be accurately focused. This means the careful co-operation of patient, assistant and operator. If the patient blinks, there is a light reflex which blurs the picture; if he moves, the object is out of focus; and if the plate is too slow, the film is so thin that it is impossible to bring out the finer details of the interior of the eye.

Stereoscopic Photography

For stereoscopic photography, two plates are made at different angles. This, of course, means two separate exposures, but if the patient's fixation is constant, we have found that by displacing the camera laterally 24 mm. it is possible to get an excellent perspective. Even in cases where the horizontal level has not been maintained, a slight tilting of the photographs will bring out the stereoscopic detail.

So few articles have appeared in recent literature regarding the increasing desirability of eyeground photographs, that the subject warrants detailed consideration. We believe that the presentation of original pictures will assist in proving the importance of photographic records.

Clinical Reports

Our study consisted in the making, correlating, and clinical classification of more than 600 eyes. The patients were of both sexes and varied in age from 6 to 81 years. Eyes with clear media were photographed, and many others with corneal, lenticular and vitreous opacities. Pictures were made of normal fundi, of high hyperopes, of high and low myopes, and of aphakics; also of those in which the normal nerve was clearly outlined, and others in which the variations from health were minor, and still others in which the changes were gross. The various pathological processes in the retina, choroid, and optic nerve have been photographed and excellent pictures of the usual and unusual fundus changes have been secured. From the extensive and ever increasing material, several illustrative groups are placed together in this monograph.

THE OPTIC NERVE

We will first speak of the optic nerve, which is often the only part of the fundus seen by a beginner. The outline varies from the clear, sharp edge without pigmentation, to a distinct encircling black ring. The disc varies in shape from round, to oval, to irregular; and in size from small, to very large. The nerve may be on the level with the retina, or portions of it may be elevated or depressed such as in colloid masses or retainted nerve sheath; or there may be a swelling and a protrusion of the entire nerve head as in choked disc. The central excavation demands special observation with notation as to its size, form, and depth. Although easily seen in the single photograph, the stereoscopic picture is necessary for its further study and appreciation.

The size, number, manner of division, and distribution of the disc blood vessels are individual. The accessory vessels, such as cilio-retinal arteries, are illustrated. The color of the nerve is easily compared, and a permanent record of progressive changes is best made by successive photographs. For the convenience of the student, reference is made to Plates 3 and 4, where various optic nerves are depicted.

THE MACULAR REGION

The most important portion of the fundus physiologically is the macular region, which shows in a most marvelous manner. The dark oval area with its abundant encircling blood supply and the deeper, central depression is beautifully portrayed.

The course of the blood vessels and vessel wall changes may be clearly shown. Exudates are reproduced in their true relation to the surrounding parts.

Congenital anomalies of most portions of the fundus lend themselves to photography.

The usual picture is approximately 35 mm. in diameter, but varies slightly depending primarily upon the type plate used in the camera. This fundus view is large enough to include the disc, the macular region, and a considerable area of the surrounding fundus.

INTERPRETATION OF A FUNDUS PHOTOGRAPH

It is essential to become familiar with the details of the fundus as shown in a photograph. The color of the nerve is usually distinctive, paler than the rest of the fundus and usually definitely outlined. The retinal veins are darker and larger than the arteries. The macular region is darker than the remaining portion of the fundus. As all ophthalmologists know, reflexes from the retina vary in size, shape, and distribution. With the ophthalmoscope, a slight change in the position of the patient's eye or the observer's head, moves the reflex and it is, therefore, not difficult to distinguish it from exudate or pathologic changes. It is absolutely necessary that the various reflexes seen in the photograph be understood before one attempts to read a picture, otherwise erroneous deductions will certainly be made. In the series of pictures here presented, the common forms of reflexes are all illustrated. In most photographs two bright circles will be found. These are the bright carbon points of the arc lamp. The larger circle is always the lower and, therefore, one may easily orientate the plate if the disc and macular region are in the field. If the fovea is not on the plate, or if only a sector of the fundus has been taken, or if the arc points are super-imposed on the white optic nerve or on pale areas in the retina or choroid, the bright circles will not be seen in the picture.

PATHOLOGICAL CONDITIONS

Interpretation of pathologic changes must depend upon the careful study of the optic nerve, its color, form and elevation, combined with the observation of the central excavation.

The fundus blood vessels must be studied in relation to their major branches especially observing the general distribution, the outline and patency of each vessel, distribution as to the subdivision and peri-macular arrangement, and the outline for tortuosities and compression, as well as for the peri-vascular reflexes, and for patency as in constricted lumen or complete closure.

Blood in the retina appears dark in the picture so that hemorrhages may be definitely outlined; and depending upon the density of the extravasation, as well as shape, a diagnosis of superficial or deep hemorrhage may be made.

Exudate as an isolated fleck or a massive white collection, such as in retinitis circinati, is to be noted by its true relations to the surrounding parts. Changes in the macular region, especially exudate and hole, may be recorded.

In this group of reproduced pictures with accompanying short clinical descriptions, we have drawn attention to the most common fundus changes. If the suggestions we have made are followed, any medical man, with the photograph before him, can make a probable diagnosis of the condition of the eye.

ADVANTAGES OF A PHOTOGRAPH

The advantage of a photograph is that it is an exact reproduction of the object viewed, and may be made a permanent record. It is well known that a visual impression is more lasting and expressive than a word picture.

Little need be said regarding permanent record. The advantages of it are obvious, and after a little investigation few will admit that it is possible to have accurate descriptions of the fundus without a photograph. With eye ground pictures, we may compare the various portions of the fundus under varied conditions. For teaching and for study this method is incomparable. For the delineation of progressive fundus changes, no process has ever been devised that so completely fills the need as photography and stereo-photography.

We may then expect to see finer changes in their complete topographical relation to the details of the fundus in a photograph than we can by direct ophthalmoscopy. It must, however, be recalled that, just as the peripheral portions of the fundus are difficult to see with the ophthalmoscope, so they are with the camera; and as with the former instrument there is distortion, so there will be with the latter. It is, therefore, difficult to portray the changes in the extreme fundus periphery, and also impossible in a single picture to show all of the fundus. By changing the direction of the eye and the instrument, several pictures may be taken and placed together to build up the whole background.

This newer method will enable us to convince many patients and many physicians of the need of improving body hygiene and protecting blood vessels from undue muscle strain. It is possible to show the progress of many diseases toward recovery and also to record the retrogressive changes such as progressive optic atrophy. Further, we may by photographs differentiate between some chronic and some acute eye conditions, especially in the increasing class of compensation claims. The changes in the optic nerve following operation for brain tumor will prove to be so interesting that every large clinic devoting time and attention to this particular special field will of necessity take photographs of the fundus before, after and during treatment; so that by this process a clearer conception of the various types of optic nerve changes brought about by increased intracranial pressure will be made known. To the internist the appeal should be great, for it will enable him to keep a record of unusual beauty and clearness. Photography of the fundus will prove of immense practical value to the progressive ophthalmologist. Many patients, particularly those suffering from disease, will be anxious to have pictures of their eye grounds. In medico-legal work fundus photography will assume an increasing value as time progresses. The criminologist will use these pictures for the recognition of delinquents, for the fundus is doubtless more characteristic than finger prints and cannot possibly be altered by external changes.

A true photograph shows things as they are and this is frequently at variance with the interpretation that an ophthalmologist places upon things as he sees them. It must be recalled that, "Things are to the eye that sees them as to that eye they seem to be." A photograph removes the doubt as to whether a condition exists and is overlooked, for after a busy day the pictures are carefully reviewed and each fact properly evaluated.

Photographing the inside of the eye will open new channels of investigation, will make observation more accurate, and will assume a large rôle in ophthalmological advance in all branches of medicine, for the photographic records will stimulate all physicians to know more about the eye.

It is with pleasure I acknowledge the great technical skill and assistance given me by Mr. James A. Glenn in the development of the photographs.

Plates 1 to 8, which appear on the succeeding pages, are reproduced from the photographs taken with the Mordenson camera.

PLATE 1

OPTIC NERVES

The numbers of the individual photographs are to be read from left to right, beginning at the upper left corner, as in ordinary reading.

1. Oval disc with many branches of the central vessels.

2. The prominent veins stand out in relief against a clear, sharply outlined nerve head. Fifty year old man.

3. Corkscrew vessels. +1.00=+75×105°. V. 20/20.

4. Elevated margin of the nerve head especially at the upper inner side. No excavation. Prominent blood vessels. V. 20/20.

5. Vascular disc. The margin of the nerve is obscured except at the temporal side. —50 = —1.50×60°. V. 20/20.

6. A vein loop projects over the central excavation in an otherwise negative nerve head. Vision with —50 = —1.25×90°. V. 20/15.

7. Clear outline. Distinct veins with no pathologic change in a 63 year old woman. +3.00 = +50×180°. V. 20/20.

8. Very large, prominent veins in a compound hyperopic astigmatism. +3.25 = +1.00 ×75°. V. 20/20.

9. Clear nerve head with a hyporopia of one diopter in a young male. Veins and arteries intertwined, but easily differentiated on close inspection.

10. Amplyopia. Corkscrew vein. +1.75× 145°. V. 7/200. A 32 year old patient who has always had poor vision. Nerve negative.

11. Corkscrew arteries. Normal nerve head in a mixed astigmatism of —75 = +1.25×90°. V. 20/20. The veins contrast well by their blackened streaks.

12. Very vascular disc without excavation. Myopia. —4.00 = —75×180°. V. 20/20.

13. Large, broad veins with hyperopic astigamatism of half a diopter in a 30 year old woman. V. 20/20.

14. Vascular disc. —25 = 25×105°. V. 20/20+. 46 year old man.

15. The veins are dark and contrast well with the narrow arteries. Normal nerve with myopia of 3.25 = 25×180°. V. 20/20+.

16. Large vessels partly obscured by the thickened nerve head. —50 = +1.00×180°. V. 20/15?

17. Pigmented temporal margin of an ovoid disc. +1.75 = +50×90°. V. 20/15?

18. Heavily pigmented temporal margin of the disc in a mixed astigmatism of +75 = +1.25×120°. V. 20/30. Many old corneal opacities.

19. Cilio-retinal vessel on a clearly outlined vascular disc in a 53 year old woman with +1.00 = 50×90°. 20/20+.

20. Disc margins distinct. Many vessels in a low astigmatism. —50×160°. V. 20/20+.

21. Large central excavation with projecting upper vessels and cilio-retinal artery in a 37 year old man. Total refraction +1.00 = +1.00×120°. V. 20/15?

22. Another example of cilio-retinal vessels with large central excavation in a 22 year old man with a —1.50 = —50×105°. V. 20/15?

23. The nerve is clearly outlined with small excavation and large distended veins in a 15 year old boy with myopia of —1.50 —2.00× 15°. V. 20/20.

24. The superior artery is in front of the vein, whereas the inferior one is covered by the vein.

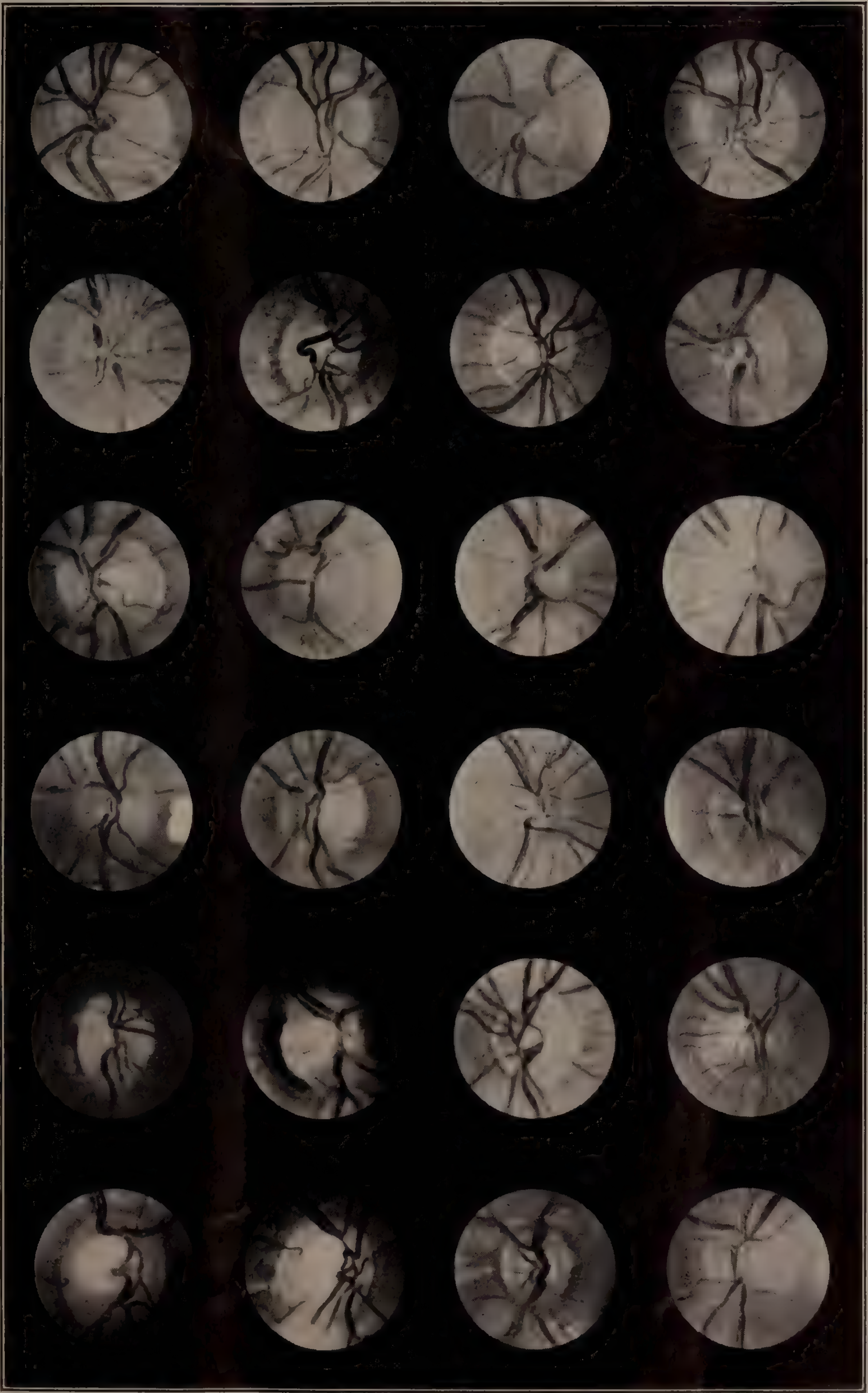

PLATE 1

PLATE 2

OPTIC NERVES

1. Nerve showing large veins and sharply demarcated central depression in a 24 year old man with a hyperopic astimgatism of 50× 15°. V. 20/15.

2. Disc showing a clear cut central excavation and the branching of the veins from the central trunk. +75 = +75×90°. V. 20/15. A 57 year old male.

3. Nerve with full veins, small excavation and clear outline in a 59 year old patient with a hyperopia of 2.75. V. 20/15.

4. Slightly pigmented temporal side nerve. Moderate sized excavation in a patient with hyperopic astigmatism.

5. Large central excavation with a vessel that could be mistaken for cilio-retinal. 54 year old woman —1.00 = +1.75×105°. V. 20/20.

6. Central excavation in a distinctly outlined nerve. Nasal margin elevated so that all the vessels coming from that side of the disc project forward before passing back to the retina. 62 year old patient. —2.25 = —50× 105°. V. 20/15.

7. A large, central excavation, not extending to the lamina, in a simple hyperopia. +75D. 60 year old male.

8. Large, central excavation, prominent nasal side of nerve head partially obscuring the blood vessels. —2.00. V. 20/15.

9. Very large central excavation extending to the margin of the disc. Vessels coming from the nasal side extend into the vitreous. No evidence of glaucoma. —3.25 = —1.25× 165°. V. 20/15.

10. Photograph through a nuclear cataract in a 71 year old man. Large central excavation. Vision with —11.00. V. 5/200.

11. A typical temporal conus. —5.75 = —50 ×75°. V. 20/20+.

12. A temporal conus in a 51 year old patient. With —5.00 = —50×105°. V. 20/20+.

13. Clearly outlined nerve head surrounded by areas of choroiditis with migrated pigment in a 59 year old woman with a myopia of —3.50 = —4.50×40°. V. 20/200. There are other atrophic areas in the choroid especially one large patch in the macular region.

14. Nerve with an irregular outline in a mixed astigmatism of —2.25 =2.75×75°. V. 20/30? Diffuse lens opacities. The conus is most marked below.

15. A large staphyloma surrounding the superior and temporal side of the nerve in a patient with 22 diopters of myopia.

16. Large disc with nodular, translucent spheres on its surface, Drusen, +25 = +50 ×90°. V. 20/15?

17. Secondary optic atrophy following a luetic neuro-retinitis in a 50 year old patient.

18. Optic atrophy evident two months after fracture of the orbit. The disc is pale and the outline distinctly pigmented.

19. A pallid nerve with clear and distinct outline in a 22 year old male. +50 hyperopia. V. 20/15.

20. A clear and distinct nerve, with central excavation and three cilio-retinal vessels in a 42 year old woman. +1.00×90°. V. 20/15.

21. Tabetic atrophy in a 55 year old male. Vision 14/200. The nerve is white, the outline distinct and the arteries thread-like.

22. Optic atrophy following embolism of the central artery. The picture was taken eight years after the loss of vision. The nerve is white, the arteries are small and the veins much reduced in size. No light perception. 48 year old man.

23. Nerve head in a retinitis pigmentosa with myopia of four diopters. Vision equal to 3/200. The secondary atrophy of the nerve is very evident.

24. Post-papillitic atrophy with obscured nerve margin and organized connective tissue over the disc.

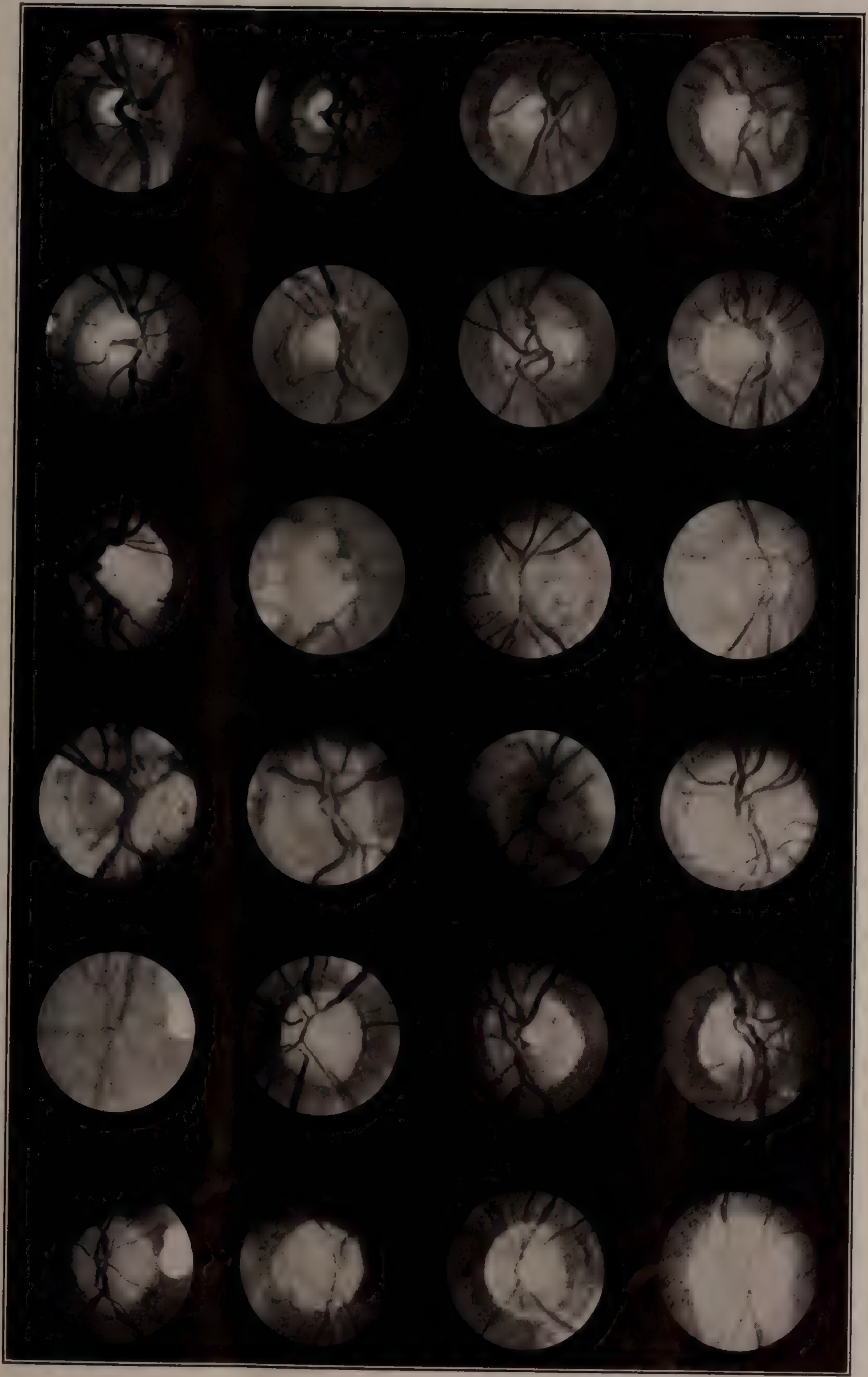

PLATE 2

PLATE 3

OPTIC ATROPHY, GLAUCOMA, RETINITIS

1. Normal fundus R. E. in a 21 year old man. V. 20/20. Total refractive error +1.00 ×90°. Disc is clearly and distinctly outlined with a large central excavation. The veins and arteries branch in a normal way and extend over the retina. The macula is clearly outlined.

2. Normal fundus in a 60 year old woman, with a moderate degree of mixed astigmatism and many opacities of the cornea. Disc clearly outlined. Vessels normal. No central excavation. Clear macular region.

3. Normal R. E. fundus showing corkscrew artery which encircles the superior nasal vein. Young adult with vision of 20/20.

4. Optic atrophy L. E. V. 2/200. The boy was struck by an automobile six years ago, as a result of which he had complete optic atrophy. There were no external signs of injury. Optic nerve white, margins sharply outlined, arteries slightly smaller than normal, veins of normal caliber, with water-silk retinal reflex.

5. L. E., a progressive optic atrophy, after a fracture of the orbit. Pictures taken four weeks after the injury. The clearly outlined nerve is white and the arteries constricted V. 20/100.

6. Optic atrophy following an automobile accident in which the only evidence of head injury was a small cut on the upper lid. R. E. Vision 20/50. Patient a 23 year old woman. The illustration shows a pale optic nerve with small arteries. Field of vision is greatly contracted.

7. Hereditary optic atrophy. Leber's disease. Patient has been under observation for the last ten years and there has been no change in his central or field vision. He is 36 years old. R. E. V. 1/200. The atrophy of the nerve is very evident. Disc is white with sharp outline. The blood vessels are reduced in size and number.

8. Tabetic optic atrophy. L. E. V. 2/200 The sight has been failing for the past 13 years in a 52 year old man. Disc white with a large atrophic excavation and attenuated vessels.

9. Optic atrophy from embolism of the central artery of the retina. L. E. 26 year old woman. The patient was seen 9 days after she suddenly lost her sight. The retina was then edematous. Now five years later, the nerve is white, the arteries extremely small, in many places completely obliterated, and discerned only as white threads. The veins are of irregular caliber and also reduced in size. The nerve head is white with faintly pigmented outline margin. There is a definite hole in the macular region.

10. Glaucoma. R. E. 62 year old woman who has been blind for some time in her right eye. Complete undermining excavation of the atrophic nerve.

11. Luetic retinosis. L. E. 23 year old male. Bilateral involvement. Vision with —4.00 3/200. A typical picture of the type fundus described by the older authors as characteristic of congenital lues. The markings of the retina are indistinct, the whole fundus appearing gray. The optic nerve is dirty white, although retaining its sharp outline. Arteries and veins very small and the peripheral branches not shown in the illustration seem to be completely obliterated. The pigment is irregularly distributed in small specks.

12. Retinitis pigmentosa (primary pigmentary retinosis). A 33 year old man who has always had poor sight. Vision in the left eye 6/200, —3.50 = —1.00×105°. V. 20/30. Field contracted within the ten degree point. The photograph taken to the nasal side shows the gray fundus, the irregular bone corpuscle type of black pigment, the gray faintly outlined optic nerve and the small retinal vessels.

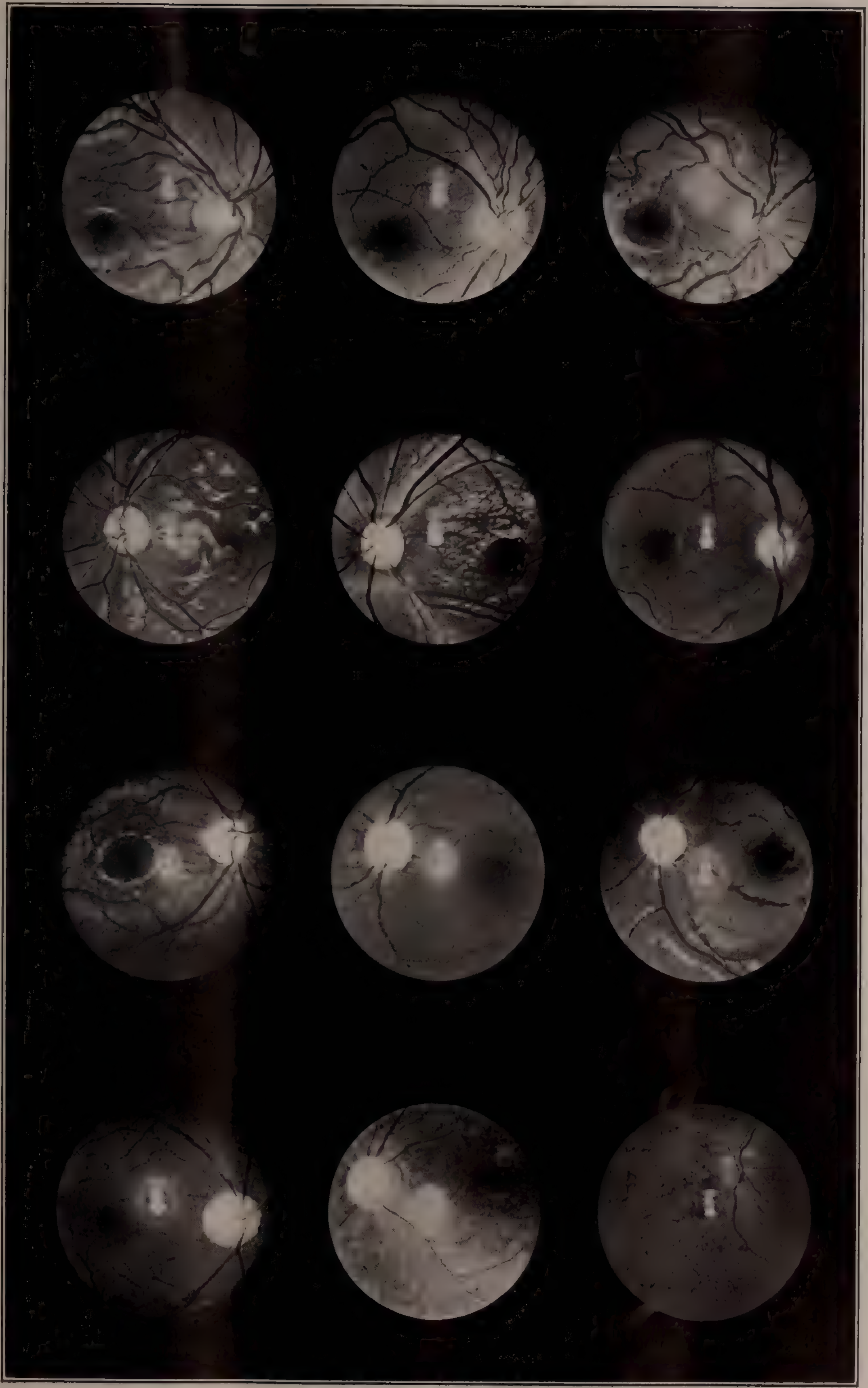

PLATE 3

PLATE 4

CHOKED DISC, POST-PAPILLITIC ATROPHY, DRUSEN CONNECTIVE TISSUE VEIL, RETINITIS PROLIFERANS, NORMAL MACULA.

1. Choked disc. Brain tumor. L. E. vision 20/20 in a 29 year old man. Marked swelling of the nerve head with no hemorrhage or exudate but large veins and arteries.

2. Choked disc in a 62 year old man with a strongly positive Wassermann. It is impossible to even indefinitely outline the nerve head because of the extreme swelling. The veins are enormously distended and both arteries and veins are frequently obscured in their course by the retinal edema. Several flame-shaped hemorrhages give the impression of a radiating crown of blood streaks. In the macular region, indistinctly shown in the picture, are several radiating lines of yellow-white exudate; the so-called macular star.

3. Post-papillitic atrophy in a 29 year old woman with vision of 20/40. First seen in May, 1926, when she had eight diopters of swelling of the nerve head, with a picture very much like No. 2. The photograph was taken in the latter part of 1926. In June, 1926, the patient was operated upon by the occipital route. The tumor was not completely removed. The illustration shows the decrease in number and size of both arteries and veins, also the white nerve and fine lines in the stretched retina.

4. Post-papillitic atrophy. L. E. of No. 3. Vision 20/20. The patient had the same amount of nerve swelling as was found in the right eye previous to operation, and yet it is to be particularly noted that the destructive changes in the nerve head and surrounding retina are very much less than in the right, although the nerve is pale, the major trunks remain patent and the retinal striation, although marked, is not as great as in the right eye.

5. Post-papillitic atrophy in the left eye of a 4 year old child. Photograph was taken under unusually trying conditions, the patient having been bedridden for several months, frequently unconscious and blind. She was bolstered up before the instrument by three assistants and after many attempts several photographs were successfully taken. The changes that have taken place in the nerve are very similar to those that have followed retrogression after operation; marked pallor of the nerve with decreased size of the blood vessels and overlying connective tissue.

6. Drusen of the optic nerve. Right eye of a 15 year old girl with corrected vision of 20/15? The Drusen forms the nasal margin of the nerve. By noting the inferior nasal vein, it is easy to observe the degree of swelling in that part.

7. A connective tissue veil over the nasal margin of the left nerve in a 44 year old man. Vision 20/20+. This veil, which extends over the nasal vessels and also a considerable distance into the vitreous, is almost transparent and seems attached to the nerve.

8. A thick prominent connective tissue veil in a young man of 20 with 20/20 vision.

9. Retinitis proliferans. The illustration shows a projecting white mass attached to the superior portion of the disc, the reduced caliber of arteries and veins, the white nerve head and the striation of exudate about the macular region. The mass contains many capillary twigs.

10. Macular reflex. L. E. 7 year old colored boy, in which the complete peri-macular reflex accentuates the outline, size and position of the macula with the darker fovea. The elevated retinal vessels are in marked relief. Vision 20-20.

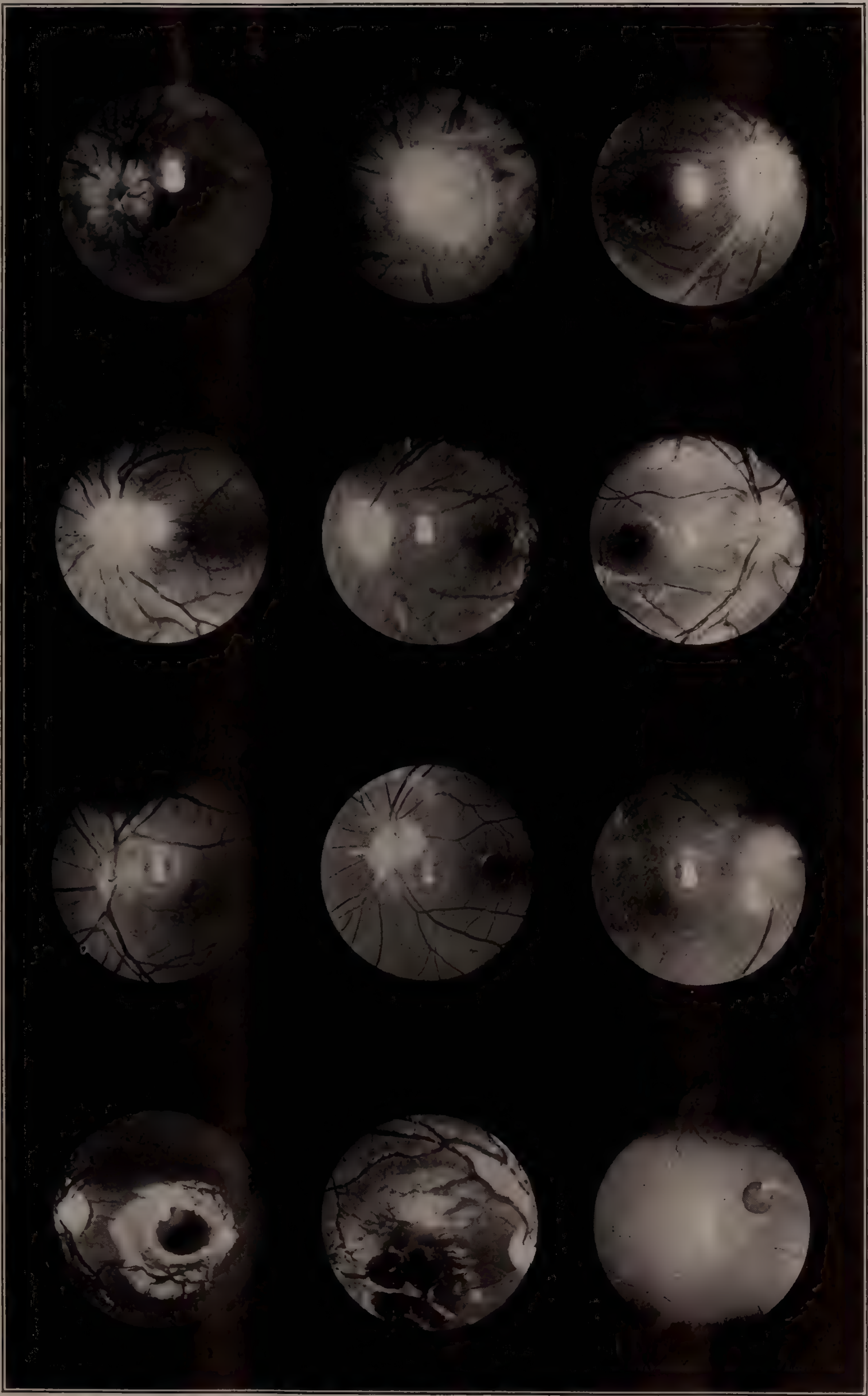

PLATE 4

PLATE 5

CHOROIDITIS, RUPTURED CHOROID, HOLE IN MACULA

1. Active choroiditis in a 63 year old woman. R. E. vision 2/200. The only discoverable etiological factor, diabetes. Patient came in with a definite uveitis. Media too clouded for any fundus detail. After six weeks of diet and general body regulation, the photograph was taken. The choroidal patch, yellowish-white, is elevated and surrounded by a clearing zone.

2. Old choroiditis. Patient was a 50 year old man from whom it was impossible to get any history of the beginning of his attack. After a thorough search no etiological factor was uncovered. The disc is well outlined and the areas of choroidal absorption with pigment migration are above and to the nasal side. L. E. vision 20/30.

3. Old choroiditis. L. E. vision 2/200. A patch of atrophy with a little pigment migration to the temporal side of the nerve in a 14 year old girl. Faint radiating lines in the overlying retina. Photograph was taken two years after the first visit, since which time there has been no change in vision.

4. Old choroiditis. L. E. vision 20/100 in a 36 year old woman. With —2.00 = —1.00× 75°. V. 20/20. Under specific treatment the active lesion subsided. The areas of pigmentation and atrophy indicate the extent of the process. The retinal vessels pass over the lesion without alteration in course or character.

5. Extensive old choroiditis. R. E. vision 5/200. Woman 40 years of age. With a —2.00 = —3.00×120° 20/70. Known to have had the disease for 17 years. Wassermann positive. No change in fundus following prolonged treatment. The irregular areas of pigment deposit, the decreased caliber of both arteries and veins, obscured optic nerve outline and pallor of nerve head, are all easily seen in the photograph.

6. Choroiditis. R. E. vision 1/200 unimproved. 60 year old male. In contrast to the preceding case, the vessels are only slightly changed in caliber and the nerve retaining its normal color is more definitely outlined. Wassermann negative. Constitutional evidence of tuberculosis—tuberculin reactions positive.

7. High myopia with secondary choroidal degeneration and optic atrophy in a 44 year old man. Vision 2/200. With —7.50 10/200. Photograph is of the left eye so turned that the clear margins of the staphyloma are easily shown and the large choroidal vessels seen beneath the thin retina.

8. High myopia with posterior staphyloma in a 49 year old man. Vision 3/200 and —12.00 = —2.00×160° 20/70. Photograph is of the left eye. The optic nerve is completely surrounded by depressed atrophic choroid. The arteries and veins are small and there is a considerable degree of secondary retinal atrophy.

9. Degeneration of the macula. L. E. V 8/200. A sharply circumscribed macular area of choroidal degeneration with pigment migration found in an 8 year old boy who gave a history of having had poor sight for years.

10. Choroidal pigmentation and atrophy. L. E. V 20/40. 16 year old boy with bilateral choroidal changes. Photographed two years after all active symptoms had subsided. The only etiological factor was positive tuberculin reaction and his response to hygienic surroundings and old tuberculin subcutaneously injected. Blood vessels of normal size, caliber and distribution. The area of choroidal atrophy is surrounded by an irregular zone of pigment migration. The remaining portions of the fundus are clear and distinct.

11. Hole in the macula, following direct impact of a baseball in the right eye five years ago. 21 year old boy. The illustration shows the pale nerve, narrow arteries, marked retinal reflex and a heart-shaped punched out area in the macular region.

12. Hole in the macula. The right eye of a 14 year old boy who came under observation in his present condition when he was 7 years old. It was impossible to get any history of a former injury. This perfectly round macular hole is slightly obscured by a thin gray film of organized connective tissue. Vision 12/200.

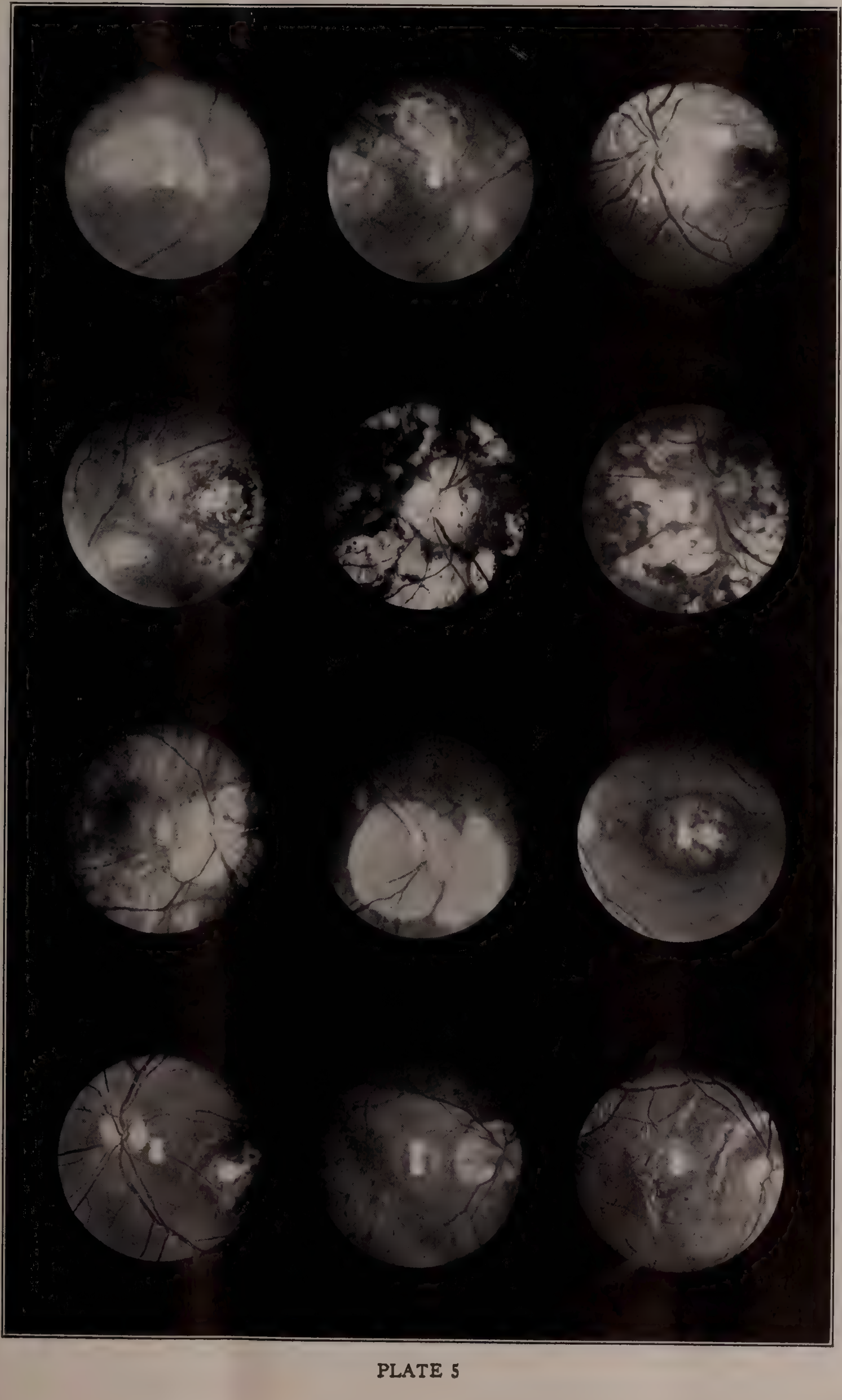

PLATE 5

PLATE 6

DETACHMENT OF RETINA, TUBERCULOSIS, VESSEL CHANGES

1. Detachment of the retina. The light is focused on the large separation in the right superior temporal region.

2. The same as 1, with the disc focused on the plate. This shows the light reflex from the prominent retinal bulge. The man, 66 years of age, suddenly noticed a reduction in his vision, which was 2/200 with a sector of field loss.

3. Detachment of the retina. V. 5/200. Almost complete detachment of the retina of the left eye showing the gray waving ridges with corresponding deep shadows. The separation is seen above the nerve and the undulating mass is clearly outlined below. The patient, 56 years old, has always been myopic and had lost the vision of her right eye as a result of retinal detachment.

4. Detachment of the retina in the lower half of a highly myopic eye. R. E. V. with a —20.00 = —2.00×180 10/200. The patient, a 30 year old woman, has always had poor vision. The illustration shows the indefinitely outlined optic nerve and surrounding staphyloma. The prominent folds of the detached retina, the vessels overlying them, are in the lower field.

5. Complete detachment of the retina in a 49 year old man who had always been very myopic. The wrinkled retina is seen to the nasal side. A large staphyloma surrounds the disc.

6. Tuberculous choroiditis in a 55 year old man with active pulmonary tuberculosis. The picture of the left eye shows in the periphery of the fundus many white areas, with fuzzy, indefinite borders and a few fine hemorrhages near the atrophic spots. V. 8/200.

7. Solitary tubercle of the choroid in a 13 year old girl, who presented with a large, prominent swelling in the macular region of the right eye. Vision 3/200. The illustration shows the area of destroyed choroid in the macular region with pigmented temporal margin and elevated grayish white nasal edge. The optic nerve is pale but sharply outlined and is partially covered by a thin gray sheet.

8. Arterio-sclerosis. R. E. in a 73 year old woman with a systolic blood pressure of 250. There is marked tortuosity of some of the smaller arteries, especially on the lower margin of the nerve, also a small area of yellowish exudate above the macular region. Vision 20/20.

9. Localized arterio-sclerosis. R. E. in a 47 year old woman, with blood pressure of 165/100. The inferior branches of the central artery show peri-vascular changes and appear as white streaks over the lower portion of the nerve.

10. Arterio-sclerosis. R. E. in a 60 year old woman. Systolic pressure 182. The arteries are tortuous and of irregular caliber. Along the superior temporal branch are many flame-shaped hemorrhages appearing in the photograph as dark blotches.

11. Chronic nephritis in a 62 year old woman. Fundus shows many fine peri-vascular hemorrhages with a large mass of blood with several white areas of exudate in and below the macular region of the right eye. Blood pressure 200/120.

12. Thrombosis of the superior temporal vein in a 56 year old man with systolic pressure of 152. The photograph shows the dark masses of blood and the white areas of exudate in the region supplied by the superior temporal vessel.

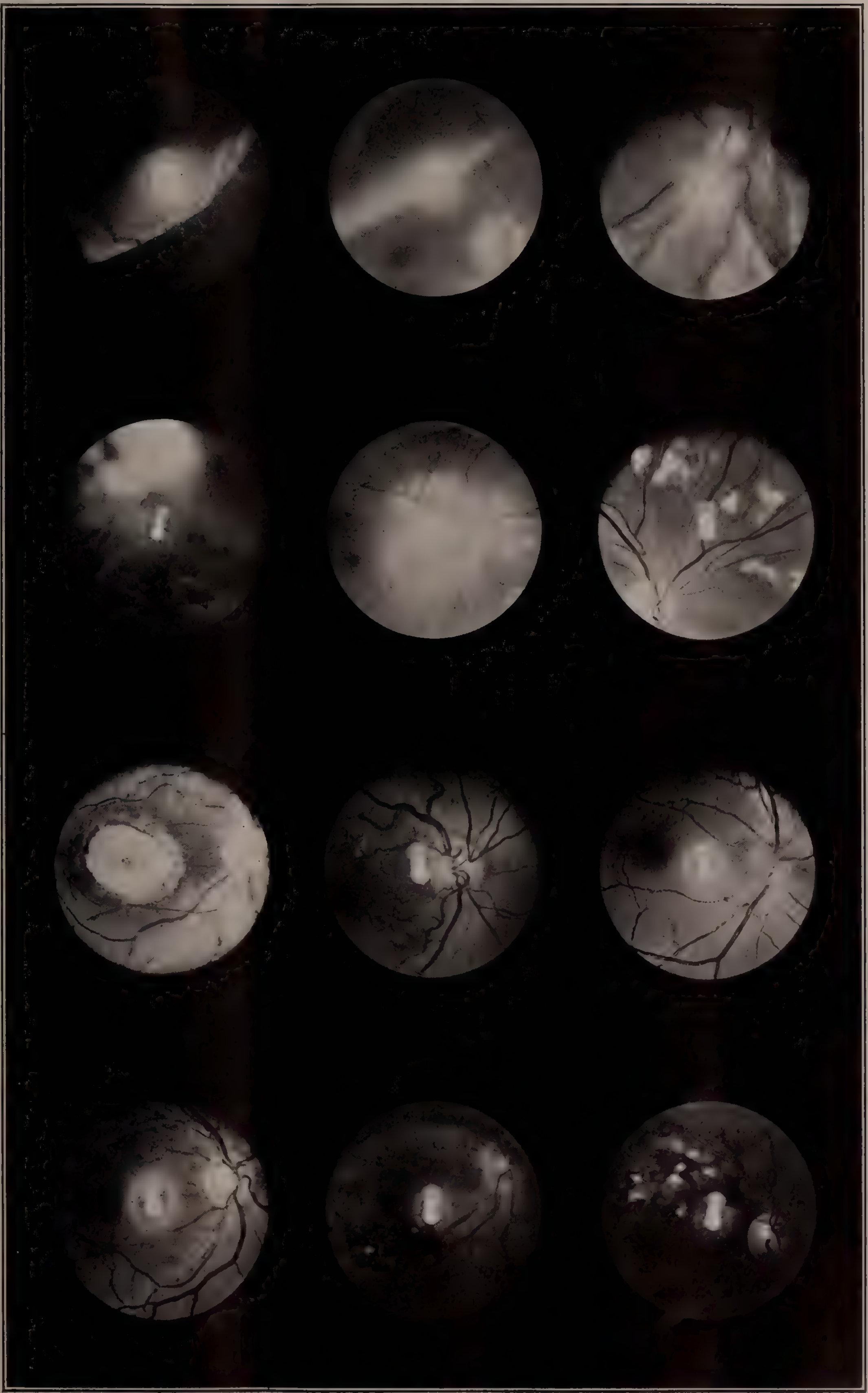

PLATE 6

PLATE 7

RETINAL ARTERIO-SCLEROSIS, RETINITIS CIRCINATA, THROMBOSIS, RENAL RETINITIS

1. Arterio-sclerosis in a 72 year old woman with a systolic pressure of 220 and vision of 3/200 presented these typical disease changes, partial obliteration of arteries, tortuous veins, aneurysmal dilatation of veins where crossed by the stiffened arteries, and marked artheromatous changes.

2. Arterio-sclerosis in a 70 year old woman with blood pressure of 180/98. Left eye vision 20/200. This shows a few scattered white flecks of exudate with extravasation of blood almost opposite the arc spot.

3. Emphasizes the marked increase in vessel wall thickness with practically complete obliteration of its lumen. Same patient as 2.

4. Shows the tortuous superior temporal vein and fine flecks of exudate. Same patient as 2. The hemorrhage has disappeared.

5. Chronic nephritis in a 70 year old man with pressure of 190/110. Illustration of the left eye shows massive whitish exudate with a tendency to the formation of a ridge around the macula. Left eye V. 12/200.

6. Albuminuric retinitis in a 69 year old patient with blood pressure 160/78. Right eye V. 16/200. Lattice-like fluffy white exudate over which the retinal vessels can be traced.

7. Retinitis circinata of the left eye in the patient from whom 6 was made. This illustrates how impossible it is to include all the fundus in a single picture.

8. Retinitis circinata. The entire zone of infiltration surrounds the macular region as an elevated whitish mass over which large retinal vessels pass. Pale center with pigmented area V. 6/200.

9. Albuminuric retinitis. Hemorrhages in and about the macular region. The white exudate seen in 6 is unchanged.

10. Chronic nephritis in a 70 year old man with pressure 200/120. The right eye shows masses of whitish exudate, splotches of hemorrhage, slight compression of the veins and a clear nerve outline surrounded by choroidal degeneration. V. 1/200.

11. Arterio-sclerosis, with thrombosis of the superior temporal vein, in a 46 year old patient. Systolic pressure 172. Photograph shows a large extravasation of blood. The pipestem white artery and several areas of white exudate. There are many flame-shaped hemorrhages in the lower portion of the field.

12. Chronic nephritis in a 46 year old man. Pressure 180/100. The illustration of the right eye, taken twenty-four days before death, presents a typical picture of the nephritic changes in the retina and optic nerve. The nerve head is swollen with indistinct margins. The arteries are of irregular caliber, in places very tortuous. The veins are distended and partly obscured by the edematous retina. There are flame-shaped superficial hemorrhages and many areas of exudate.

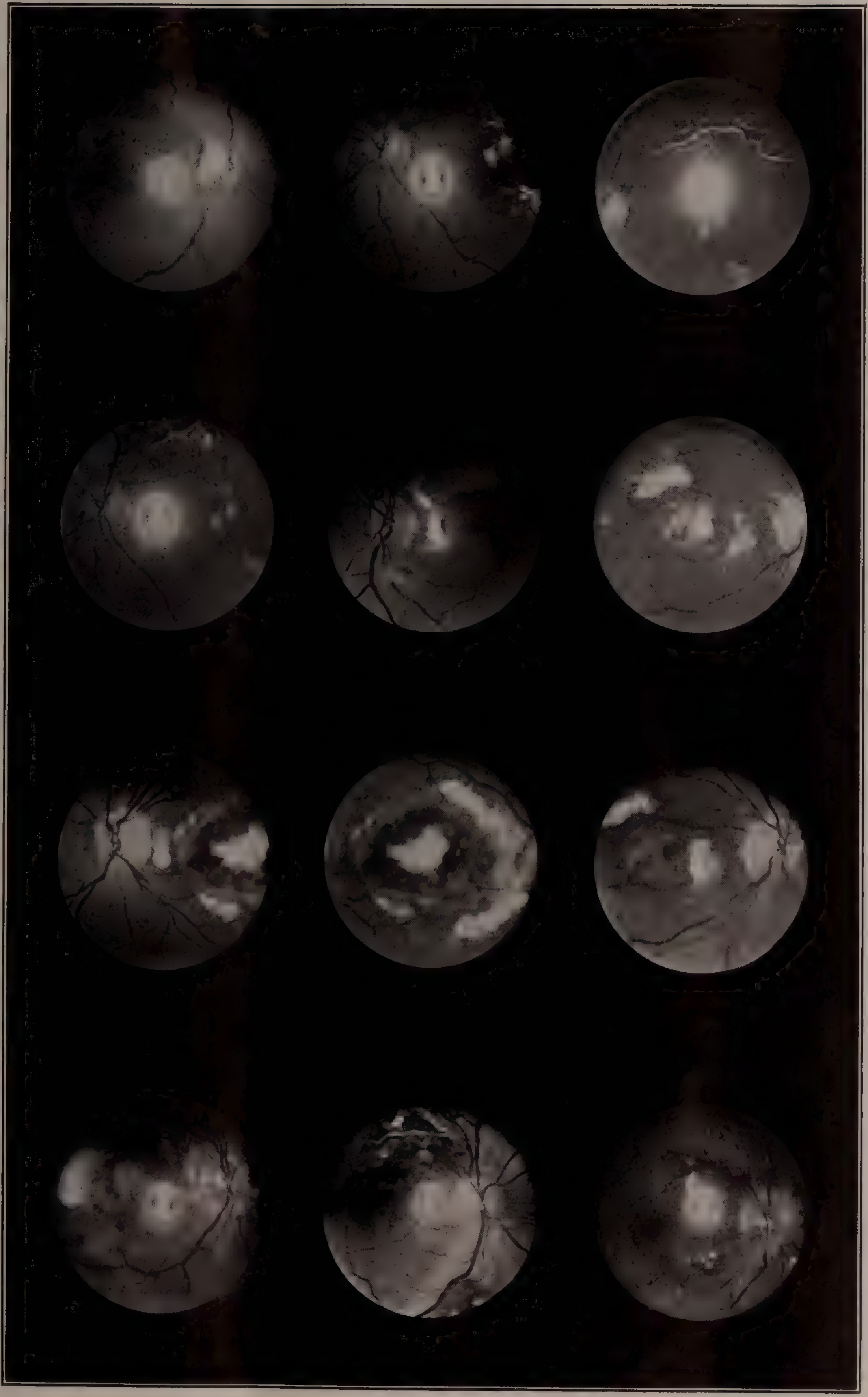

PLATE 7

PLATE 8

NORMAL FUNDUS, STEREOSCOPE PLATES

1. Normal fundus, clearly outlined nerve, large central excavation, sharply differentiated dark veins and lighter arteries. Macular region distinct. A young lady of 28. V. 20/15, Total refractive error +25 = +25×75°.

2. Stereoscopic pictures of a normal fundus in a 50 year old patient. Total refraction —2.50 = +3.00×105°. V. 20/15.

3. Absolute glaucoma. Complete glaucoma cup with white nerve in a man 57 years of age who has been blind in that eye 17 years.

4. Retinal exudate. 46 year old woman who first noticed failing vision four weeks before the photograph was made. V. now 3/200. In and about the macular region, the retina is edematous with a white downy exudate.

NOTE: The last three illustrations are, as far as we know, the first stereoscopic fundus views presented for publication.

The retina and optic nerve will be seen in true perspective if viewed through a stereoscope.

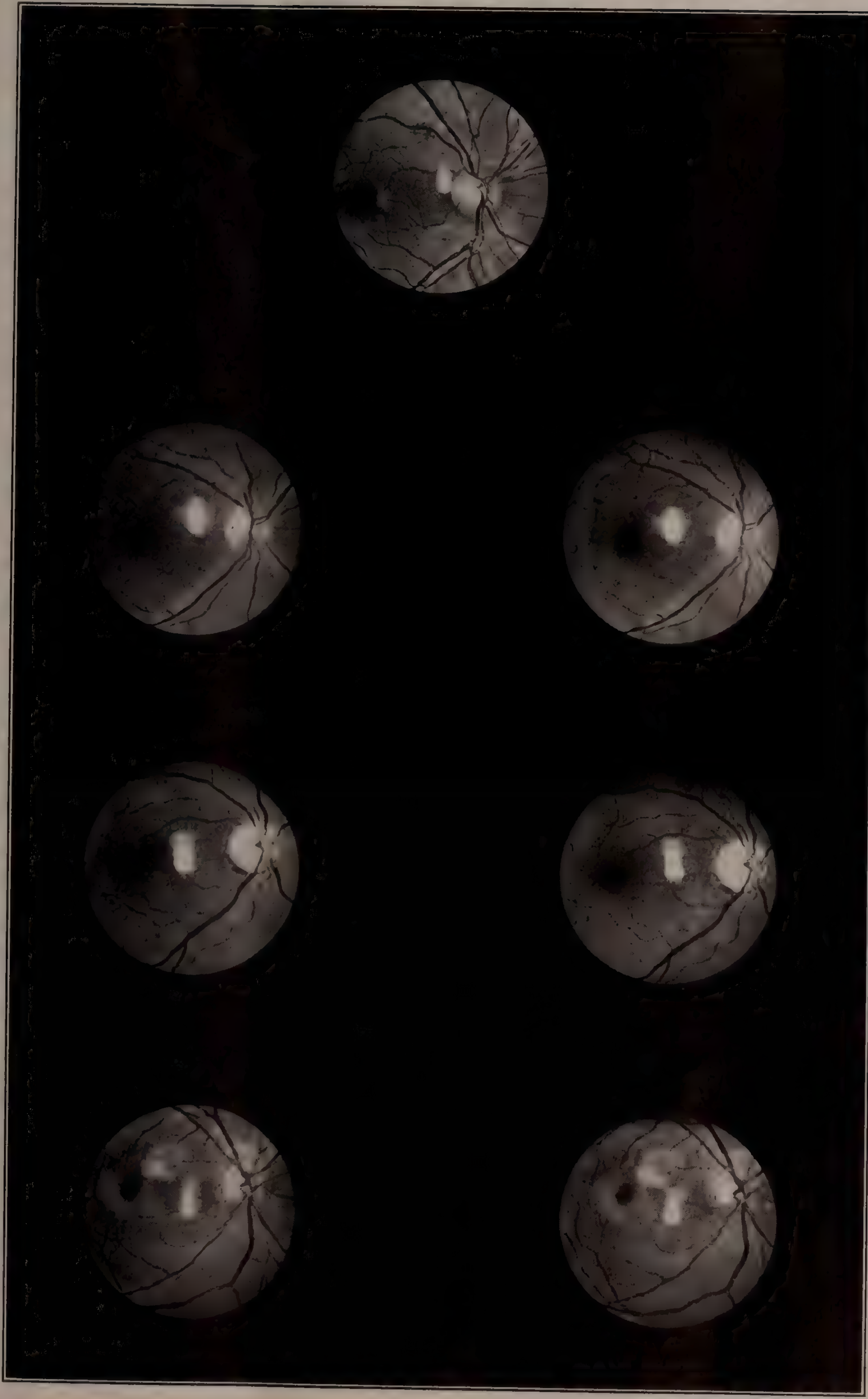

PLATE 8

EDITORIAL

NEW YORK STATE JOURNAL OF MEDICINE

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For list of officers of County Medical Societies, see this issue, advertising page xxviii.

PHOTOGRAPHS OF THE EYE FUNDUS

The ophthalmoscopic examination of the fundus of the eye is a procedure in which every practitioner of medicine should be trained, according to many practical teachers of medicine. A great difficulty in acquiring skill in making the examinations has been the lack of accurate pictures of the various conditions of the fundus, both normal and abnormal, with which a learner may compare his own findings. That lack is now being supplied by actual photographs taken of the interior of the eye with cameras specially made for the purpose.

The series of 115 photographs, which are published on page 957 of this issue, illustrate the value of this new method of recording the findings of the ophthalmoscope. These photographs were taken by Dr. Arthur J. Bedell of Albany, and won for him the Lucien I. Howe prize. Every physician should preserve these photographs for reference and study.

VACATIONS

The time of vacations is nearly over and most doctors are back at work. It is doubtful that any community has suffered because a considerable proportion of its doctors have been away from work, for most physicians take their leave of absence at a time when their practices are the least active.

Most physicians are glad to get back to their routine practice, for active work in one's chosen field is the desire of every normal person. No one is entirely idle while on a vacation, for everyone golfs, or hikes, or fishes, or engages in some other form of strenuous activity. Yet it is not the activity which makes a vacation attractive, but it is the novelty of the change. And when the novelty wears off, as it does in a week or two, the desire for the old office and patients becomes overpowering and the return to duty is as happy as its relinquishment.

The best vacation is that which is taken piecemeal—an hour or two a day on the golf links, or in a speedboat, or engaged in some avocation which one cherishes from the pure love of it.

BROADENING THE ACTIVITIES OF MEDICAL SOCIETIES

A quiet movement is taking place among the medical societies of New York State to broaden and unify their activities. There are three principal groups of medical societies.

1. County societies.
2. Academies of Medicine and societies of specialists.
3. Local societies.

The automobile has annihilated space and has enabled rural physicians to attend meetings in the cities where Academies and specialists and local groups have flourished. The ease of transportation is restoring the County Medical Society to its former predominance.

The experience of Brooklyn demonstrates the possibility and desirability of unifying all medical societies in one organization. There the Kings County Medical Society fulfills all the functions of an Academy of Medicine. It maintains one of the largest medical libraries in the United States and dominates the entire public health field of Brooklyn. Societies of specialists and local societies are feeders and supporters of the county society and depend on it for their literary facilities and carrying out their public health projects. There has never been any question regarding the dominance of the medical profession of Brooklyn by the Kings County Medical Society.

The physicians of the city of Watertown maintained a local medical society which held monthly meetings and gradually displaced the county society as the dominant society in Jefferson County. When automobile transportation became rapid and reliable, physicians from the rural communities drove in to the meetings until the City Society duplicated the membership of the County Society. The City Society then disbanded as a Society but transferred its activities to the county society, which now holds monthly meetings and controls all the public health work of Jefferson County.

The unification of medical organization in the county societies is a movement in the right direction.

OPERATIVE AND SPECULATIVE MEDICINE

Systems of thought are divided into the operative or practical, and the speculative or theoretical. Medical authors attempt to reconcile these two systems when they name a textbook "The theory and practice of medicine"; but any textbook or system of medicine will be largely speculative, and will prove to be deficient when it is tested at the bedside on an obscure case.

The general practitioner deals with operative medicine, just as the Salvation Army leader deals with operative religion. The people cry out "What shall be do to be saved?", and the general practitioner as well as the Salvation Army leader proceeds to do something tangible and practical without entering into the speculative aspects of the cases.

It is the duty of the doctor to make a diagnosis,—that is, a scientific classification of the sickness or disease,—for this is the basis on which he will apply his treatment. Dr. Samuel Lambert says "Diagnosis is a working hypothesis for the application of therapeutics, subject to change without notice on the discovery of further evidence." Every doctor who prescribes a pill or a powder does so on the basis of a working hypothesis, whose correctness will depend on the doctor's scientific knowledge and experience. The successful doctor is the one who achieves a high degree of success in both speculative and operative medicine.

Public health and civic medicine have both their speculative and their operative aspects.

The public health nurse who discovers a case of rickets in a needy family seeks to apply operative medicine when she brings the case to a doctor and asks him to treat it. The doctor practices speculative medicine if the prospect of no pay impels him to decline to give the treatment.

Whenever two doctors are agreed on a diagnosis or working hypothesis, they readily agree on the therapeutics to be applied. When physicians and lay health workers are agreed on a diagnosis of a public health condition, they readily agree on the practical measures to apply to the situation. Physicians in their individualism often lack the social point of view; while lay workers are prone to overlook the individualism of both the patients and the doctors. Neither group can afford to ignore or condemn the other.

The Committee on Public Relations of the Medical Society of the State of New York is accomplishing the great work of getting the physicians and lay workers to agree on a working hypothesis for the application of effective measures in public health and civic medicine.

GRADUATE MEDICAL EDUCATION

There is no closed season for graduate medical education. Hundreds of physicians have attended clinics in Europe during the summer while their wives studied art in the great galleries located in the medical centers; while hundreds of others have combined pleasure with profit in attending clinics in Greater New York, Buffalo, and other clinical centers. But with the resumption of work by the county medical societies, graduate medical education will be one of their principal activities.

The Committee on Public Health and Medical Education of the Medical Society of the State of New York will be ready to assist any county society that will undertake any line of graduate medical education.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Typhoid Not Always Water-borne: Epidemics of typhoid were considered to be almost entirely water-borne during the period of the Spanish War, and the years immediately following; but a commission of medical officers of the U. S. Army, appointed to investigate the prevalence of typhoid in the American Army camps reported adversely upon the water-borne theory. This report was the occasion of an editorial in this JOURNAL for September, 1902. After showing that civilians of several cities escaped typhoid although they drank the same water that the soldiers used, the editorial says:

"Failing to find in the water supplies a common cause for the widespread epidemics, the commission with greatest labor traced out and located every case of typhoid which had developed in a number of regiments. In this way 1,608 cases were investigated. All these cases were plotted out in charts, showing the tents in which they occurred and the dates of their occurrence. As a result of this investigation the commission came to this important conclusion: Typhoid fever, as it developed in the regimental organizations, was characterized by a series of company epidemics, each one having more or less perfectly its own individual characteristics."

"In 1,608 cases of typhoid fever which we have been able to accurately locate in the particular tents in which they occurred, together with the date of the commencement of the attack, the results may be summarized as follows:

Directly connectable attacks (in same tent)	563, or 35.01 per cent.
Indirectly connectable attacks (in next tent)	447, or 27.79 per cent.
Total connectable attack	1,010, or 62.80 per cent."

The plan of getting a complete history of each case seems to have been novel at the time, but it is now the standard method that is used in every epidemiological investigation.

The editorial makes the following general comment on the conclusions of the commission:

"The evidence adduced is sufficient to make a very strong case for the verdict of the commission that the direct and indirect infection in tents were most important factors in the spread of the epidemics."

There is no hint of the part taken by flies as bearers of bacilli, or of the infection of food in the kitchens by food handlers. One reading the report will be surprised to learn how modern are present epidemiological methods.

MEDICAL PROGRESS

An Analysis of Ulcer of the Stomach and Duodenum.—Ralph Lynch, writing in the *Canadian Medical Association Journal,* June, 1927, xvii, 6, presents an analysis of 944 cases of ulcer observed at the Montreal General Hospital during the ten-year period 1917 to 1926, inclusive. Of the 944 cases, 690, or 73 per cent, were in males, while 254, or 27 per cent, were in females; 541, or 57 per cent of the ulcers were duodenal; 380, or 40.6 per cent, were gastric, and 23, or 2.4 per cent, were peptic. Almost 100 per cent occurred in the white race. Fifty-seven per cent of the ulcers were found in persons between the ages of 30 and 50 years. Of the associated infections 8 per cent were dental, 3 per cent tonsillar, 0.6 per cent sinus, 2 per cent syphilitic, 1 per cent tuberculous, while carcinoma was found in 3, or 0.3 per cent. There was a history of typhoid fever in 10 per cent, of pneumonia in 7 per cent, of epidemic influenza in 5 per cent, of rheumatic fever in 0.3 per cent, of nephritis in 3 per cent, abdominal injury in 1.6 per cent and the use of alcohol in 23 per cent. The most frequent symptom was localized abdomnial pain in 40 per cent. The *x*-rays gave positive evidence of ulcer in 40 per cent, suggestive evidence in 34 per cent and negative findings in 26 per cent. Gross hemorrhage was recorded in 52, or 5.5 per cent, of the cases, which is considerably lower than is usually given. Of the 52 cases, 31 were treated medically, with a mortality of 13 per cent; 21 were treated surgically with a mortality of 43 per cent. The result of the study of the medical treatment indicates that 62.5 per cent of gastric and 79.5 of duodenal ulcers respond to the Lenhartz or Sippy management. The Sippy method was used in the medical wards, and the author agrees with Alvarez in believing that frequent feeding, rather than alkalinization, is the point of importance. Many patients do well without alkalinization. The relief of symptoms that follows the institution of a dietary regime is scarcely less striking than the action of quinine in malaria. The failure to get relief from a standard system of diet should make the internist question his diagnosis; neurasthenia should be carefully excluded. If the case does not respond to dietary treatment, he should be convinced that there is an anatomical lesion (adhesions, gall-bladder disease, or the like) and that surgical consultation is indicated. In surgical cases operation should be postponed until bleeding has subsided and the patient's systemic condition has considerably improved, usually four or five weeks after the subsidence of hemorrhage.

Retention of Appetite and Bulimia in Cancer of the Stomach.—P. Le Noir and R. Liège relate some personal experiences with this symptomatology which is seen exceptionally in cancer of the stomach and which may even coexist with pain and vomiting. In a woman aged 54 with a voluminous tumor of the stomach, found to be inoperable, the appetite which had at first failed, reappeared and the patient gained 27½ pounds in the five months which followed the exploratory laparotomy. Death took place in 11 months after this intervention. In another case reported at much greater length the patient was a man of 66 who had complained of his stomach for a year. Food relieved the pain of which he complained and far from having any aversion to meat he was particularly found of it. During the year he had lost over 35 pounds. He had never vomited and in addition to the pain mentioned complained only of nausea and constipation. His appearance was that of a patient with cancer of stomach, pale and waxy. Local symptoms were absent with the exception of tenderness on pressure and muscular defence. An autopsy could not be obtained in this case but the positive röntgen finds, the emaciation, anemia, and cachexia were sufficient to uphold the diagnosis of cancer. This patient, in short, had hunger pains which were relieved by food and there were no evidences of failure of digestion. Bulimia in cancer of the stomach has been noted by Brinton, Deschamps (inaugural thesis, 1884—six cases), Arnozan, Hanot, Mathieu (numerous cases), Guillemard, M. G. Lyon, and Bourget. Owing to the great infrequency of this symptomatic type, the danger of making a fatal diagnostic error in cancer of the stomach with bulimia is to be borne in mind.—*Le Progrès Médical,* June 25, 1927.

Heredity in Cancer of the Stomach.—V. Pauchet and A. Hirschberg contributed their findings toward the elucidation of this problem, which has recently come up in the sessions of the Académie de Médecine. The incidence of an hereditary factor has been placed at 6 to 16 per cent, 13 per cent, 15 per cent, and 5 per cent by as many authorities. The total material of the authors is 150 gastrectomized cases in which there was full opportunity for microscopic control. With respect to a possible bearing of heredity the authors make a distinction between the vegetating and inflitrating stomach cancers. The total number of these patients with an hereditary or familial factor was at most seven, to which may be added one case in which the mother died of "abdominal cancer" and another in which the mother succumbed to cancer of the breast. The percentage then is but 6 at the outside, corresponding to the lowest figures of the authorities quoted. In six of the nine patients the cancer was of the vegetative type, in two of the infiltrative, and in the ninth the type was mixed. The history of heredity was present in all but one case and in that, in which the familial element was noted, there were two brothers with cancer of the stomach without a parental history. So far as the relatively small material justifies conclusions, the typical hereditary patient should be relatively young (under 55) when attacked and his cancer should be of the vegetating, pseudoglandular type. The authors call attention to the great difficulties inherent in this problem, for after the diagnosis of cancer in the actual patients is established, it is very difficult to determine the presence or absence of cancer in the ascendants.—*Bulletin de l'Acadêmie de Médecine de Paris,* June 14, 1927.

Non-specific Protein Therapy of Chronic Joint Diseases.—P. Spiro refers to the treatment of arthritis and arthrosis by so-called stimulating non-specific treatment, which term the Germans use in preference to protein treatment, probably because a few of the substances used are not proteins. The author employed a variety of milk products as protein representatives and also a preparation of sulphur and gelatine, sulphur oil, etc. Radium emanation is also mentioned under this head. Sulphur preparations given parenterally were employed in the treatment of chronic arthritis and periarthritis by Meyer-Bisch. Aside from the above, little or nothing is said of the details of treatment. The results obtained thus far by the author are stated as follows: the number of cases of chronic infectious arthritis treated was 16, of which 9 were benefited and 7 unimproved. The number of cases of destructive periarthritis treated was 26, of which 10 were benefited. Osteoarthropathia deformans gave the least favorable results, for out of many treated (no total is given) but one reacted positively and the same may be said of osteoarthritis deformans. Of 11 cases of secondary chronic joint rheumatism treated, 9 were benefited, and of 14 cases of primary chronic polyarthritis, all but one responded. Of 18 cases of exudative arthritis all but one were treated with success and of 12 cases of adhesive arthritis 6 were benefited. Of 6 cases of ulcerated arthritis not one improved and but one good result was obtained in an unstated number of cases. The three types of deforming joint disease, all of which failed to benefit, are differentiated as follows: Deforming osteoarthropathy is essentially dependent on faulty metabolism, deforming osteoarthritis is a trophic alteration, while deforming arthritis is characterized by new formation of bone—*Deutsche medizinische Wochenschrift,* May 27, 1927.

Lymphogranulomatosis Inguinalis.—W. Frei of Breslau publishes a timely monographic article on this newly described affection which simulates chancroidal bubo, syphilis leucemia, and tuberculosis and concerning which widely varying statements have been published. Another very similar, if not identical, affection has recently been described under the name of poradenitis inguinalis, but the author does not repeat this name although he gives the references. The affection is certainly not new in the clinic, however it may be in literature, for it agrees in many respects with strumous or scrofulous bubo of old writers and perhaps has been masked in the past as *bubon d'emblé* in which it was supposed that a minimal chancroidal lesion on the penis had disappeared before the day of consultation. Increased prevalence of the disease in recent years has been variously explained but chiefly by importation from the tropics and subtropics. As is the case with poradenitis, no microorganism has been discovered in the fistulous discharge or punctate, and inoculation experiments on monkeys have chiefly proved negative. But inoculation experiments on the bearer have given positive reactions. Apparently every known affection which might simulate the one in question can be excluded by one or another test, including histological study and blood examinations. Positive results seem to have been seen under treatment with emetine, iodides, and antimony, also radiotherapy and nonspecific protein injections. Excision, which should be the logical procedure, has not often been done for fear of setting up elephantiasis. There is clearly no ideal treatment as yet and probably will not be until the etiology is definitely established. Over fifty cases of this affection have been described in the past 18 months, in a few of which there was a history of sexual exposure and of a questionable transitory lesion on the penis, but this, however, is quite exceptional. —*Klinische Wochenschrift,* June 4, 1927.

Treatment of Hiccough.—Gaston Lyon discusses this subject quite thoroughly, taking up in succession the various clinical and etiological types. The most familiar of these is seen after hearty or hastily-eaten meals especially if highly spiced, and after alcoholic overindulgence. The first aid treatment consists in holding the breath, in slowly sipping cold water, plain or charged, or in sucking ice. Vomiting is doubtless indicated but an emetic would be too severe treatment for so mild a disorder. Should the hiccough fail to yield to these mild measures, cold or heat may be applied to the epigastrium with rhythmic tractions on the tongue and compression of both phrenic nerves between the two insertions of the sterno-mastoid muscles. If the galvanic current is available the phrenic nerve may be galvanized. Of medicaments many sedatives and anti-spasmodics have been used, naturally those with the most prompt action first, as a few drops of ether or chloroform, but after the disorder has become inveterate opium, papaverine, belladonna, the bromides, etc. It is best to combine several of these remedies in one prescription. If the indigestion which is responsible for the symptom is characterized by hyperacidity, alkalies are indicated and the author believes that a combination of an alkali with a sedative is the best routine prescription, instancing a formula of bismuth carbonate, calcined magnesia, and powdered belladonna root. Hiccough accompanies a great variety of diseases in which it may be an unpleasant symptom and the treatment must of course be both causal and symptomatic.—*Le Bulletin Médical,* June 1-4, 1927.

The Heart of Malarial Subjects.—E. Benhamou and Marchioni of Algiers, internist and radiographer respectively, discuss in detail the so-called globular and flaccid heart of the chronic malarial subject, and arrive at the following conclusions: Malaria has an important action on the heart which is recognizable by serial radiography. The organ passes rapidly from the normal to the globular and flaccid type with soft and slow pulsation. By reason of its frequent occurrence it becomes a true stigma of chronic paludism. In examination of malarial patients by ordinary clinical methods we often find murmurs, edema, enlarged liver, ascitic and pleuritic transudations, and asystolia or hyposystolia—the clinical picture in fact of the globular and flabby heart. The pathological condition is not a myocarditis but a functional insufficiency from hypotonia. This condition may be produced by the cooperation of several factors—vagotonia, anemia, suprarenal insufficiency, and especially the accesses of intermittent fever. These patients require both quinine and digitalis.—*Archives des Maladies du Coeur,* June, 1927.

Application of the Principle of Quarantine in Abdominal Surgery.—Robert C. Coffey has confirmed the experimental work of Yates which demonstrated that all the usual forms of drains used in abdominal surgery were closed, so that absolutely no drainage from the peritoneal cavity would take place, after six hours. He also agrees with Yates in condemning the usual forms of drainage of the peritoneal cavity on the ground that with them drainage is impossible, it is depleting, and pus and blood are not drained away. In order to overcome these objections Coffey has devised the quarantine drain, which possesses the following essential qualities: (1) The surface on the side of the peritoneal cavity is smooth and inoffensive to the abdominal organ with which it comes in contact. (2) It remains accurately in place. (3) It provides ample drainage and may be removed with the least possible trauma. The quarantine drain is made of strips of gauze five or six inches wide, cut across a 36-inch bolt of gauze. The ends of the wick are formed by the two selvage edges of the gauze. All the cut edges are accurately turned in and ironed with a flat iron and the wicks are twisted. The two ends are brought together and again twisted. Six of these double wicks are placed in a package and sterilized. When unfolded for use, the two ends of the wick are untwisted from each other, care being taken not to expose raw edges. When placed, each loop is laid separately, the middle of the loop being brought to the surface, where it is cut, thus leaving two wicks to be removed. Twelve wicks of this kind are sufficient for establishing and maintaining the quarantine and draining the area. These wicks are massed together at the surface and covered with four thicknesses of rubber tissue, making a drain about one-inch in diameter. The lower ends of the drain are spread out in fan shape to surround the area to be quarantined. The method of making the rubber tissue covering is described in detail. In a general way the indications for the use of such a drain are: (1) Infected organs which tend to produce a peritonitis by contact or discharge; (2) intra-abdominal abscesses so located that the wall is apposed to the neighboring viscera, and where the discharge must be conducted across the free peritoneal cavity after drainage is established; (3) an intra-abdominal viscus which, because of the presence of infection, or for other reason, it is impractical or undesirable to close at the time; (4) large denuded or bleeding areas which it is impossible to cover with peritoneum; (5) extensive recurrent adhesions which disturb the functions of abdominal organs.—*Annals of Surgery,* June, 1927, lxxxv, 6.

Insulin in Septic Processes.—Dr. H. Picard of the surgical university clinic of the Charité Hospital, Berlin, refers to the relationship between sepsis and the blood sugar content and to the fact that this content becomes increased in certain affections like furunculosis. Quite recently it has been shown that the power of insulin in reducing this content has a salutary effect on the disease. At the Charité clinic insulin has been employed in various suppurative affections—furuncle and carbuncle, abscesses of all kinds, felons, osteomyelitis, etc. Other and aseptic material was used as control, and in this group the blood-sugar content did not go above 100 mgm., while in the septic group the figure was invariably higher, with the exception of osteomyelitis, going from 120 mgm. as a minimum to 215 mgm. in a facial abscess. Insulin brought these figures down notably—in the facial abscess case to 135 mgm. and in the others proportionally, but this fall was only temporary and was succeeded in 24 to 48 hours by a rise. The clinical improvement however was not only more striking in character but seems to have been maintained, and some of the more impressive results were seen in chronic cases, e.g. furunculosis of 18 months' standing. Of great value was insulin in those furuncles of the lip which are often the odium of surgery. Advancing phlegmons were brought to a halt and in no group of these suppurations is there any mention of negative results, with the one exception of osteomyelitis, in which, as has already been mentioned, the blood-sugar content of the blood is not raised. This exception then is what one would expect, and insulin should be given in theory only after a blood test. — *Deutsche medizinische Wochenschrift,* June 24, 1927.

Diathermy in the Treatment of Pneumonia.—R. P. Forbes, writing in the *Archives of Pediatrics,* June, 1927 (xliv, 6), reports an encouraging experience with diathermy in the treatment of pneumonia in infants and children. Although this form of treatment was undertaken with considerable skepticism, it soon became evident that definite therapeutic results were being obtained. In 117 cases of lobar pneumonia in which diathermy was not employed, the mortality in the past three years was 28.2 per cent, as compared to 15.1 per cent in 33 cases of lobar pneumonia in which diathermy was used. In 190 cases of bronchopneumonia, in which diathermy was not applied, the mortality was 38.9 per cent, as compared to 19 per cent in a series of 63 patients receiving diathermy treatment. Although the duration of the disease was apparently unaffected, the percentage of complications of pneumonia was strikingly less in the series of patients receiving diathermy. In one patient in whom the *x*-rays showed an enlarged thymus and beginning pneumonia, diathermy apparently caused a rise in temperature, increase of cyanosis, and increase in pulse rate and restlessness. Myocarditis developed and death occurred on the thirteenth day. Whether the treatment was responsible for the thymus congestion is a matter of conjecture, but the experience suggests that thymus hypertrophy may be a possible contraindication for diathermy treatment of pneumonia. In a severe case of whooping-cough pneumonia in a young infant, in which a fatal termination would ordinarily have been expected, diathermy appeared to be life-saving. Forbes concludes that this form of therapy should be considered a valuable adjuvant in the treatment of pneumonia.

Treatment of Whooping Cough in the Allergy-free Chamber.—W. Storm van Leeuwen and W. Kremer of the University Clinic for Allergic Diseases at Leyden have extended the use of their allergic chamber to patients with whooping cough. Originally it was devoted to asthma cases. The room is so constructed as to exclude from the air all possibility of allergic substances. The material of the walls, etc., is a form of asbestos and the space is air tight. The furniture is of iron. The bedding is sterilized, and all the air that is allowed to enter the room is sterile and free from dust. The patients enter the chamber and remain until all attacks have ceased. No other treatment is employed. Five severe cases of pertussis were first treated. The ages of the patients were 14 months to 6 years, the day of disease the 16th to the 23rd. The first general result noted was the disappearance of all severe attacks; the mild attacks which persisted gave but little trouble and soon vanished. Two patients continued to vomit with their paroxysms for several days. The first patient left the chamber on the eighth day; the second on the sixth, day, although attacks ceased on the fourth day; the third on the fourth day, the fourth on the sixth day, and the fifth on the fifth day. The average sojourn then was but six days. Hence, thus far, the new method appears to be excellent to bring cases of two to three weeks' standing to a rapid arrest and cure—a great improvement over the usual methods. — *Muenchener medizinische Wochenschrift,* May 27, 1927.

Tetanus Following Intramuscular Injection of Quinine.—Four fatal cases of tetanus following the intramuscular injection of a solution of quinine bihydrochloride into the buttocks are reported by John Macqueen. In all of these cases the incubation periods were long: in two cases 27 to 28 days, in one 21, and in one 11 to 12. The illnesses, on the other hand, were usually severe, the time between onset of symptoms and death being in no case more than 72 hours. It was concluded that in all four cases the tetanus spores were introduced at injection. There did not appear to have been any obvious defect in the manner of preparation of the skin, the technique of injection, the sterilization of syringes and needles, or the preparation and sterilization of the solution. These cases serve as a reminder that quinine solution causes necrosis of the muscle-tissue and that necrosed tissue shut off from the air may form an ideal nursery for tetanus spores if they happen to gain entrance. They provide a further argument in favor of the oral as compared with the intramuscular route for the administration of quinine whenever possible.—*The Lancet,* June 18, 1927, ccxii, 5416.

LEGAL

By LLOYD PAUL STRYKER, Esq.
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WITH SABRE AND SCALPEL

One of the writer's favorite diversions is rummaging in old book stores. While thus engaged he came upon a volume which he bought, took home and could not put down until he read it through. It is the autobiography of an outstanding surgeon, a brave soldier and a fine citizen.

The book in question bears the interesting and appropriate title "With Sabre and Scalpel." It was written by the late Dr. John Allan Wyeth. There is no part of it that is not vital with interest and inspiration. It is the story of a southern boy who bore arms as a soldier in the Confederate Army, and who came later to New York City to write his name indelibly in the annals of medicine.

Dr. Wyeth was born at Missionary Station, Marshall County, Alabama, on May 26th, 1845, a descendant of Welsh, Scotch, English and German ancestors, and whose grandfathers on each side fought in the Revolutionary War.

Young Wyeth was but sixteen years old when the war between the States broke out. His father opposed secession in 1861, but when the convention of Alabama voted to join the Southern Confederacy, he gave himself to the cause, and although over legal military age, volunteered and served at the front until discharged on account of illness. Young Wyeth was graduated from the famous old LaGrange Military Academy, now but a memory as its buildings were destroyed by Sherman's army. The young man served first in 1862 with a company of Partisan Rangers and Quirk's Scouts of Morgan's Cavalry. The story of his exploits reads like a page of some old novel.

He served later in a regiment which was christened "Russell's Fourth Alabama" in honor of a "brave, grim doctor who laid aside the spatula and scalpel for the sword and six-shooter."

The chapters devoted to his military service in the Army of the Confederacy are thrilling. Among other great engagements in which he participated was the battle of Chickamauga, which marked the high-tide of the Southern Confederacy.

Just before the battle of Chattanooga, his troop was halted one afternoon at four o'clock when word came from the front down the line repeated from regiment to regiment, that "a volunteer was wanted at the head of the column who would go where he was ordered." Young Wyeth volunteered. When he reported to the general in command, he was asked "Are you willing to go inside the enemy's lines?" to which the young trooper answered "If it was necessary I would try to do what was required, provided I could wear my uniform, but that I wouldn't go as a spy." His services were accepted, and then at the dead of night, stripping his horse and himself of everything not absolutely necessary, and with no equipment save a small New Testament which his mother had handed him when he left home, and with a trusty army six-shooter, he went off on his dangerous mission. The mission was stated by his commanding officer in these words, "I want you to carry a message to some troops that have passed around their flank (McCook's Corps), and are now coming up in their rear. It is important that they be headed off and ordered to return by the route they traveled. To reach them in time you will have to pass through the Federal lines." Alone this boy of eighteen started off.

"It goes without saying," he writes, "that I appreciated the dangers which this mission involved, but the most astonishing feature of the psychology of this moment was that I found myself in a condition of mind in which the value of life became a secondary consideration. It had never come to me before; it never has since. In that brief period the stars were not far away, for I had eliminated self. The one absorbing thought which took possession of me was that my mother would be proud of me for trying to do my duty. I did not intend to be stopped, and with a swift, game and powerful horse the chances were in my favor." The young trooper rode through the Federal lines, delivered his message and accomplished fully the missoin he had undertaken.

Later, he was captured, and was confined for nearly two years in a Federal military prison. His sufferings there were far greater than anything he had endured while in the field. "All the rats which could be trapped were eaten," he reports, "and to my knowledge one fat dog was captured by my messmates, cooked and eaten. I was invited to partake; and, although the scent of the cooking meat was tempting, I could not so far overcome my repugnance to this animal as an article of diet as to taste it."

In 1864, his uncle, a Northern man, offered to secure his parole from President Lincoln and invited him to come and live with him and tinue his studies in the University of Illinois. "As the acceptance of this parole until the war was over would carry the implication of desertion in case an exchange of prisoners took place," wrote Wyeth, "I felt bound to decline the generous offer. My uncle then endeavored to have the parole modified so that I might remain until exchanged, but Mr. Stanton would not consent to this. It was a great temptation, but the last words my mother and father had said to me were, 'Don't forget that although you are only a boy, and all we have, we would rather have you come home in a coffin than dishonored.' "

Finally the war ended, and young Wyeth then took up the study of medicine in what was then one of the oldest and deservedly best known of the medical colleges in the United States—the medical department of the University of Louisville. No preliminary or entrance examination was required, and any white male who could read and write and who had mastered the rudiments of English was eligible. Neither Latin nor Greek was essential. The requirements for graduation were a satisfactory examination at the end of two college terms of seven months each.

The division of subjects was: anatomy, physiology, surgery, medicine, obstetrics, chemistry and materia medica. Anatomy was thoroughly taught, and the didactic course was supplemented by dissecting-room work of a high order, although material was never overabundant. In physiology there were no laboratory exercises, no practical demonstrations of the living structures and of the functions of the normal organs. The teaching of surgery and medicine was almost wholly didactic. When an operative clinic was given, the students witnessed it at such distance from the subject and with so many interruptions of vision that it was impossible to follow closely the details of technique, without which the lesson of a demonstration is valueless. Not once during his two college years did the aspiring young medical student enter a ward of a hospital or receive instructions by the bedside of a patient.

Some indication of the character of medical teaching then in vogue is evidenced by the fact that the students were told "that the cause of malarial and yellow fever was a miasm emanating from decaying vegetable matter subjected to a temperature of from eighty to ninety degrees Fahrenheit for about thirty days, and that those who slept upon the ground floors of buildings suffered most, while those who occupied the second, third and higher floors escaped the baneful effects in the direct ratio of their elevation." "Knowing as we do now that the mosquito is not prone to fly high, that he infests the lower floors of houses, seldom reaching the third or fourth floor," says Dr. Wyeth, "we can understand readily the error in etiology on the part of our professor of medicine."

The teaching of obstetrics was entirely didactic. "In my two terms of study," the author says, "I examined only one gynecological case, while in chemistry and materia medica the instruction was in the lecture-room to the whole class instead of with working sections in the laboratory, and there was no course of study in microscopy or urinary analysis."

In the spring of 1869, young Wyeth was graduated from the medical school, and awarded a diploma. "The possessor of a pair of doctor's saddle-bags," he writes, "which held two rows of medicine bottles, diminutive apothecary scales for weighing dosage, two forceps for extracting teeth, and a small minor surgical operating set of instruments, and last, but not least, a tin sign, I rented an office in my home town of Guntersville, Alabama, and after dark one night in March, 1869, I tacked my sign to 'the outer wall'."

It was not long before the young doctor concluded that he needed a clinical and laboratory training under teachers of experience, and determined temporarily to abandon his profession until he could secure that training; and so two months after he had tacked it up, he took down his sign and put it in his trunk where it reposed for several years.

In order to obtain the means with which to pursue his further studies, he went into the contracting business, and was engaged until 1872 in this activity "chiefly in transporting materials in public works." His chapter devoted to his experiences in Arkansas is highly entertaining and gives a picture of the life in that state at that time, which is of real historical value.

In 1872, having made a little money and being thus in a position to pursue his studies, he made a survey of the medical schools of the City of New York, and to his great surprise and disappointment, found that there were no special courses for graduates, and therefore "as clinical experience and practical anatomy were the chief attractions for me, I selected Bellevue College as offering the best advantages, and matriculated there in November, 1872." Almost at once he attracted attention as he there came under the leadership of Dr. Edward G. Janeway, who was then the demonstrator of anatomy. Under his guidance, in 1875, Dr. Wyeth took up the study of pathology. At this time he became well acquainted also with Dr. Abraham Jacobi.

It was not long before the young post-graduate was making independent researches of great value, and so between 1875 and 1878 we find him making careful investigations, beginning his work upon the carotid artery. The accepted teaching of that day, as expounded at a lecture by Professor Frank R. Hamilton, was that the branches of the carotid artery "were so irregular in origin and arrangement, and often so close together, that a ligature should never be applied to it, . .

that it seemed to be an exception to the general law of development of the arterial system in man," and that "the common carotid should be tied for all lesions in the distribution of the external branch." The young physician, hearing this lecture went away saying to himself, "It can't be so, and I must prove it." In 1878 he had done so, and as a result of his researches demonstrated "that these vessels obeyed a law as fixed as that of the other arteries, and that the common trunk should never be ligated on account of a lesion in the distribution of the external carotid."

The paper which he wrote upon this subject was offered in competition for one of the two prizes to be given by the American Medical Association at the meeting in Buffalo in 1878. Dr. Wyeth won both prizes.

Later his contributions to medical literature were numerous, and all of them of great scientific value. Some of his medical contributions were: "Bloodless Amputation at the Hip-Joint and at the Shoulder;" "The Treatment of Vascular Tumors (Angiomata) by the Injection into their Substance of Water at a High Temperature;" "Demonstration by Experimental Studies on Animals and by Operations on Human Beings of the Process of Permanent Arterial Occlusion after Deligation," and many others.

Dr. Wyeth was elected in 1886 President of the New York Pathological Society, in 1893 Vice-President of the American Medical Association, in 1900 President of the New York State Medical Association, and in 1901 President of the American Medical Association.

There seemed almost a limitless capacity for endeavor in this full life. Not only did he make many and important contributions to medical literature, but he also contributed numerous articles to the lay press among which were those entitled "Cold Cheer at Camp Morton," a narrative of prison life from October, 1863, to February, 1865; "Nathaniel J. Wyeth and the Struggle in Oregon;" "General Wheeler's Leap;" "The Capture of Colonel A. D. Straight and His Entire Command;" "The Storming of Fort Pillow;" and many others. In 1899 he published a "Life of General Nathan Bedford Forrest," and eight years later a "History of the LaGrange Military Academy and the Cadet Corps."

Among the lay honors to which Dr. Wyeth attained was the Presidency of the Southern Society, and the Chairmanship of the Executive Committee of the Union League Club, inconsistent as these two positions would appear to be. In this connection he tells of his admission to that dignified old Club on 39th Street so famed for its loyalty to the Union and to the Republican party. "As the time for voting on my candidacy came near," he writes, "it occurred to me that an ex-Confederate soldier, whose natural leaning and training had been about as far away from what the Union League Club represented as it could be, could never possibly be elected unless it were under a misapprehension." So he wrote to the Chairman of the Admission Committee that he had been reared in the South, and had served in the Confederate Army, and with the exception of the Bryan years, had always voted the Democratic ticket. This letter was read aloud to the Committee, and the Chairman thereupon remarked "with a good deal of feeling that the Union League Club needed in its membership a Confederate soldier who could write such a letter, which sentiments the President indorsed," and he was unanimously elected.

In 1881, the founding of the New York Polyclinic Medical School and Hospital "marked the introduction of systematic post-graduate medical instruction in America," and was "at least an important factor in the great movement which, starting at that period, has revolutionized and carried to a degree approaching perfection the teaching and practice of medicine and surgery in the United States." It was due largely to the efforts of Dr. Wyeth that the organization of the Polyclinic as a post-graduate school was effected.

Through the efforts of Dr. Wyeth, together with the assistance of such philanthropists as Mrs. Helen Hartley Jenkins and Mr. William P. Clyde, the splendid new building at 341-51 West 50th Street became a reality. "I have always had an abiding faith in the ultimate triumph of a good cause," says Dr. Wyeth. "The only real setback to this conviction was the failure to establish the Southern Confederacy. . . . Now, the Polyclinic Hospital with its ambulance service differs from the Southern Confederacy in one important particular—viz., it is established."

But perhaps the most interesting chapter of all is that devoted to the division and re-union of the medical profession of New York State, which we shall make the subject of a further editorial.

"With Sabre and Scalpel" is a record of a great life. It must have been a great and versatile character who could rise through war and peace to the pinnacle of his profession, and who at the same time possessed that sensitive sympathy and feeling that enabled him to write these moving lines:

"To My Mother

Deal gently with her, Time! These many years
Of life have brought more smiles with them than
tears.
Lay not thy hand too harshly on her now,
But trace decline so slowly on her brow
That, like a sunset of the northern clime,
Where twilight lingers in the summer-time,
And fades at last into the silent night,
Ere one may note the passing of the light,
So may she pass—since 'tis the common lot—
As one who, resting, sleeps, and knows it not."

NEWS NOTES

ERIE COUNTY MEDICAL SOCIETY

More than one hundred physicians in Western New York responded to an invitation to attend the annual outing of the Medical Society of the County of Erie, held June 23rd, on the spacious grounds of Gowanda State Hospital.

The physicians had been urged by the officers of the Society to lay aside their professional cares for the day, bring their families, and enjoy an old-fashioned basket picnic, with a program of sports and scientific talks.

The medical societies of Niagara, Chautauqua and Cattaraugus counties were well represented. Dr. Harry A. Trick, President-elect of the State Medical Society, addressed the gathering.

The medical staff of the State institution presented an instructive program, including a talk on the proper method of committing a mental patient; a demonstration of the results obtained in the treatment of general paralysis by inoculation with the malaria parasite, and an exhibition of the occupational and physical therapy departments of the hospital.

EDGAR P. ORVIS, M.D., *Secretary.*

THE AMERICAN COLLEGE OF SURGEONS

The American College of Surgeons will hold the seventeenth Clinical Congress in Detroit, October 3-7. Headquarters will be at the Book-Cadillac and Statler hotels, and the meetings will be held at the Statler Hotel, and Orchestra Hall. The Hospital Standardization Conference will extend from Monday morning to Thursday afternoon.

Clinics in general surgery will be held in the Detroit hospitals each morning from Tuesday to Friday, and in Eye, Ear, Nose and Throat work the same afternoons. Clinics will also be held at University Hospital, Ann Arbor, Tuesday to Thursday. On Tuesday and Wednesday mornings and afternoons, and on Thursday morning, clinical demonstrations will be held at the Statler Hotel (mornings) and Orchestra Hall (afternoon). On Tuesday evening the program will take the form of a celebration of the Lister Centennial. There will be a replica of the Lister exhibit at the Wellcome Museum of Natural History, London, including Lister's operating rooms and hospital wards. The Departments of Hospital Activities, of Literary Research, and of Clinical Research of the College will also present exhibits.

CONNECTICUT STATE MEDICAL SOCIETY CLINICAL CONGRESS

The Connecticut State Medical Society holds a clinical congress in addition to its annual meeting. The Congress this year will be held on September 20, 21, 22, in New Haven, in the Sprague Memorial Hall. One of the dormitories of Yale University will be set aside for the entertainment of the doctors. Dinner meetings will be held on Tuesday and Wednesday afternoons at the Lawn Club, Whitney Avenue and Sachem Street. A fee of $5.00 is charged which includes admission to all sessions of the Congress, and a copy of the abstracted papers presented. The program includes twenty-one papers on a wide range of subjects, including drug rashes, Cæsarean section, socialization of medical practice, common foot conditions, and asthma.

DOCTOR CHARLES C. DURYEE

Dr. Charles C. Duryee, of Schenectady, consultant in City Health Administration for the State Department of Health, resigned his position on the first of July and retired from active service.

He was one of the eight sanitary supervisors who were appointed by the Commissioner of Health, Dr. Herman M. Biggs, on the reorganization of the Department of Health in 1914. He was always sympathetic toward the doctors and understood their point of view. He cooperated with the Albany Medical College in conducting a series of classes for the training of health officers, in which about 200 physicians have received instruction.

After 46 years of the practice of medicine and public health, Dr. Duryee retires honored and respected by the physicians of New York State.

THE DAILY PRESS

RESEARCH BY PRACTISING PHYSICIANS

One object of this department of Daily Press is to enable the editors to make comments on topics which they would not have the temerity to bring up if some prominent laymen did not introduce the subject.

An editorial writer in the *New York Herald-Tribune* for August 15, brought up the subject of cooperative research by practising physicians, and makes the suggestion that "It ought to be a requirement of the world's intellectual by-laws that every man and woman who has brains enough to put one fact after another be compelled at least once a week to tackle some bit of original investigation." The occasion for the suggestion was the recent action of the British Medical Association in which "It was agreed that the general medical practitioners who belong to the Association shall be urged to join in cooperative scientific investigations."

Commenting on this action the editorial writer says:

"Some one seems to have had the revolutionary idea that perhaps the ordinary doctor has quite enough sense to be worth using if only he could be introduced to tasks which will not too greatly overtax his time. There are about thirty thousand of these doctors in Great Britain. The Association purposes to enlist them in scientific endeavors in which each can do his bit, and all together can do much.

"This is called a scientific age, and so it is if one notices nothing but the accomplishments of professionals. We hire scientific men as we hire carpenters or ditch diggers, to do tasks which we are too lazy or unskillful to work at for ourselves. Considered as a device to make money or to wage war or to lift the standard of living, this idea of the tame scientist works well. The professional researchers are worth all that they cost. But they cheat the rest of us of discipline. The tasks of observation, of reasoning, of experiment, which we assign to them would be good for everybody."

The editorial writer is correct in urging the desirability and value of research by professional men, but he seems to be unaware that the suggestion of the British Medical Association is far from revolutionary, but is as old as medical organizations themselves. One of the great objects that was sought when the Medical Society of the State of New York was formed over one hundred years ago was that of investigating the causes of prevalence of diseases; and this year the Society took up the special investigation of heart diseases.

It is a fundamental principle in the organization of the State and County Medical societies that every member is expected to be not merely the recipient of information and other benefits, but to contribute the record of his own experience to a common fund of medical knowledge. Not only should he express his opinions on medical topics, but he is expected to search out and arrange the facts of his experiences in support of his opinions. The duties of research and statement of his findings are preached by officers of his societies until the members are sometimes annoyed. Why are the evidences of their response not more striking? The answer is that research and analysis on the part of physicians is so common that it is not news. Only the unusual is news. The newspaper editors and the people generally soon tire of the continuous record of the slow advancement of medical affairs in their midst; but once a year, or once in ten years, they suddenly discover that people are living longer and more happily than formerly as the result of the unnoted studies made by the family doctors.

The *Tribune* writer probably has in mind that paragon of physicians which is also the ideal portrayed by the constitutions and codes of ethics of medical societies.

STATE MEDICINE

Dr. S. Parkes Cadman was asked the following question:

"Do you not think after a medical student has received his medical degree he should be controlled by the State government in order to abolish the exorbitant fees usually charged by physicians?"

He answered it in his Department of the *New York Herald-Tribune* of August 16, as follows:

"I do not. State controls should be avoided wherever possible. State regulation has its uses when applied to injurious monopolies. Such control has no legitimate function in any of the learned professions, and one taste of its quality is a convincing reminder of the wisdom of this position.

"Socialized forms of medical and surgical service already exist in the numerous public dispensaries, clinics and endowed or municipal hospitals, of which the plain people take full advantage. The remedy for exorbitant fees is in the courts, provided a personal appeal to the physician himself fails.

"The best traditions of his vocation are honorably sustained by the vast majority of its representatives. They are altruistic servants of the community, and this despite the fact that they are beset on all sides by quacks and charlatans. Their custom of grading fees according to the patients' ability to pay brings the finest scientific skill within the reach of the poor and makes the rich help to bear the common burdens of disease and affliction. Leave the doctors alone. When they have exterminated fee splitting, their record will mount higher."

This is the answer which a physician would give, and is according to the ethics of the Medical Society of the State of New York.

PROGRESSIVE POLYGAMY

Is there usually a medical aspect in divorces? Psychoanalysts say that sex enters into the majority of abnormal mental states, but that the conscious idea of sex is suppressed and appears in other forms such as love and dress display, or of applause, or notoriety.

Two questions arise regarding the relation of physicians to the prevention of divorce:

First, can the premonitory signs of impending separations be diagnosed?

Second, can a physician give effective treatment to a quarrelling man and wife?

The public discussion of the prevention of divorces has been carried on principally by sociologists and church leaders, and comparatively little is said regarding the medical phases of the problem. An editorial writer in the *New York Herald-Tribune* of July 26, says:

"Dr. Stetson of Trinity Church has given a damning name to the practice of serial marriages and divorces which has grown under legal and even social sanction. He calls it 'progressive polygamy,' which he thinks 'more menacing to society' than 'the legalized polygamy of the East,' which the Bishop of New York has been loud in condemning in Turkey, though legal sanction for it has there been withdrawn. The legalized polygamy of the East has at least not left childhood without a home. That is more than can be said for serial rather than synchronous polygamy. When one in every six marriages is ended by divorce, and divorce means in most cases wreckage of the home, it is difficult to overestimate the menace to the oncoming generation."

The editorial quotes Dr. Stetson's belief that laws are powerless to prevent divorces, but that "If the churches stood aggressively together in this view of their responsibility, they should be able to quicken such a sentiment in support of our traditional respect for the institution of marriage as would protect it even against the 'progressive polygamy' which certain states not only tolerate but encourage. They might even aid by refusing, as Dr. Stetson suggests, to let their sanctuaries be used for the ostentatious and vulgar celebration of a sordid relationship which to all intents and purposes is pagan."

To this might well be added the advice to the incompatible man and wife to seek the counsel of a wise physician at the beginning of their marital troubles. Physicians settle more family quarrels than are generally known.

PUBLIC OPINION

The editorial page of the *New York Herald-Tribune* of July 29 explains why the promoters of wild theories receive notoriety and acquire followers. The writer quotes Dr. Nicholas Murray Butler as saying:

"Don't listen to the big noises; listen to the silences. It is the opinion of the quiet, thoughtful persons throughout America which really counted but did not often get displayed on the front pages of the newspapers."

Commenting on this statement, the writer says:

"If a politician makes a statement in a headline, or a propagandist asserts an argument in a pamphlet, it is almost beyond the powers of human nature for each reader not to suppose himself so superior to all the others that he alone can understand the fallacy. It leaves the conviction in everybody's mind that everybody else must have been taken in by it, and so every one bows down in trembling before the big noise in the dread certainty that it must represent what all the others are thinking.

"Certain tabloid newspapers thrive upon abuse because the more they are abused the more do their subscribers read them in order to learn the depths to which all the other subscribers are sinking."

However, the time element must be taken into consideration. The "Big Noise" is potent news only while it is novel. It soon becomes stale and commonplace, and is forgotten save by the antiquarian who seeks the ghosts of the past in the yellow files of vaudeville newspapers.

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

The Health of the Child of School Age. By Various Authors. With a foreword by Sir Thomas Oliver, M.A., M.D. 12mo of 204 pages. New York and London, Oxford University Press, 1927. Cloth, $1.80. (Oxford Medical Publications.)

An Illustrated Guide to the Slit-Lamp. By T. Harrison Butler, M.A., D.M. Quarto of 144 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $9.00. (Oxford Medical Publications.)

Malarial Psychoses and Neuroses. With Chapters Medico-Legal, and on History, Race Degeneration, Alcohol, and Surgery in Relation to Malaria. By William K. Anderson, M.D. Quarto of 395 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $13.00. (Oxford Medical Publications.)

Practical Otology. By Morris Levine, M.D. Octavo of 387 pages, with 145 illustrations. Philadelphia, Lea and Febiger, 1927. Cloth, $5.50.

Surgical Anatomy of the Human Body. By John B. Deaver, M.D. 2nd Edition. In 3 volumes, thoroughly revised and rearranged.

Volume II. Upper Extremities, Neck, Shoulders, Back, Lower Extremities. Quarto of 854 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1926.

Volume III. Joints of the Lower Extremities, Chest, Thorax, Abdomen, Pelvis, Perineum. Quarto of 763 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1927. Cloth, sold by subscription to the 3 volumes, at $36.00.

Lister, As I Knew Him. By John Rudd Leeson, M.D. Octavo of 212 pages. New York, William Wood and Company, 1927. Cloth, $3.50.

The Life and Work of Sir Patrick Manson. By Philip H. Manson-Bahr, D.S.O., M.D., and A. Alcock, C.I.E., LL.D. Octavo of 273 pages. New York, William Wood and Company, 1927. Cloth, $5.50.

Tropical Surgery and Surgical Pathology. By Karuna K. Chatterji, F.R.C.S.I. With a foreword by Sir R. Havelock Charles. Octavo of 244 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

Textbook on Diseases of the Skin and Syphilis. Designed for the Use of Students and Practitioners. By Albert Strickler, M.D. Octavo of 689 pages, illustrated. Philadelphia, F. A. Davis Company, 1927. Cloth, $8.00.

Recent Advances in Haematology. By A. Piney, M. D. Octavo of 276 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1927. Cloth, $3.50.

Segregation and Autogamy in Bacteria. A Contribution to Cellular Biology. By F. H. Stewart, M.A., D.Sc., M.D. Octavo of 104 pages, illustrated. London, Adlard and Son, Ltd., 1927. Boards, 7s. 6d. Net.

An Outline History of Ophthalmology. By Thomas Hall Shastid, A.M., M.D. Octavo of 34 pages. Southbridge, Massachusetts, American Optical Company, 1927. Cloth, retail price $1.25. Selling Agent: George Wahr, Ann Arbor, Michigan.

Pulmonary Tuberculosis. By G. T. Hebert, M.A., M.D. 12mo of 212 pages. New York and London, Longmans, Green and Company, 1927. Cloth, $3.00.

The Religion Called Behaviorism. By Louis Berman, M.D. 12mo of 153 pages, illustrated. New York, Boni and Liveright, 1927. Cloth, $1.75.

Heart and Athletics. Clinical Researches Upon the Influence of Athletics Upon the Heart. By Felix Deutsch, M.D., and Emil Kauf, M.D. English translation by Louis M. Warfield, A.B., M.D. 12mo of 187 pages. St. Louis, The C. V. Mosby Company, 1927. Cloth $2.50.

The Psychology of Mental Disorders. By Abraham Myerson, M.D. 12mo of 135 pages. New York, The Macmillan Company, 1927. Cloth, $1.40.

The Cause and Cure of Speech Disorders. A Text Book for Students and Teachers on Stuttering, Stammering and Voice Conditions. By James Sonnett Greene, M.D., and Emilie J. Wells, B.A. Octavo of 458 pages, illustrated. New York, The Macmillan Company, 1927. Cloth, $4.50.

City Health Administration. By Carl E. McCombs, M.D. Octavo of 524 pages. New York, The Macmillan Company, 1927. Cloth, $5.50.

How to Make the Periodic Health Examination. A Manual of Procedure. By Eugene Lyman Fisk, M.D., and J. Ramser Crawford, M.D. Foreword by Major General Merritte W. Ireland. Octavo of 393 pages, illustrated. New York, The Macmillan Company, 1927. Cloth, $4.00.

Cystoscopy. A Theoretical and Practical Handbook Containing Chapters on Separate Renal Function and Pyelography. By Jas. B. Macalpine, F.R.C.S. 12mo of 284 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $7.00.

Lectures on Internal Medicine. (Delivered in the United States, 1926.) By Knud Faber, M.D. Octavo of 147 pages, illustrated. New York, Paul B. Hoeber, Inc., 1927. Cloth, $3.00.

Approaching Motherhood. Questions and Answers of Maternity. By George L. Brodhead, M.D. 3rd Edition. 12mo of 193 pages. New York, Paul B. Hoeber, Inc., 1927. Cloth, $1.50.

Hernia and Hernioplasty. By Ernest M. Cowell, D.S.O., M.D. With an introduction by Sir Arthur Keith, F.R.C.S. Octavo of 128 pages, illustrated. New York, Paul B. Hoeber, Inc., 1927. Cloth, $3.50.

Practical Lectures on the Specialties of Medicine and Surgery. Delivered under the Auspices of the Medical Society of the County of Kings, Brooklyn New York. (Second Series, 1924-1926.) Octavo of 590 pages, illustrated, with 110 illustrations. New York, Paul B. Hoeber, Inc., 1927. Cloth, $7.00.

BOOK REVIEWS

LABORATORY OUTLINES IN BACTERIOLOGY AND IMMUNOLOGY. By JOHN F. NORTON, Ph.D., and I. S. FALK, Ph.D. Octavo of 114 pages. Chicago, Illinois, The University of Chicago Press, (1926.) Cloth, $2.00.

This is a laboratory manual for instructors and students in a one year course in bacteriology and immunology. It carries the student through the preparation of culture media, microscopic examination of cultures, methods with typical pure cultures, action of disinfectants, study of groups of bacteria including anaerobes, examination of water and milk, vaccine preparation, immune reactions, Wassermann test, toxin-antitoxin reactions and anaphylaxis.

It is arranged in the form of two hour laboratory periods, the directions are concise and practical and the course is so designed that portions may be omitted if the instructor desires to make it shorter and more elementary.

E. B. SMITH.

THE MEANING OF DISEASE. An Inquiry in the Field of Medical Philosophy. By WILLIAM A. WHITE, A.M., M.D. 12mo of 220 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $3.00.

To the reader who enjoys a little philosophy now and then as a change in mental diet, we heartily recommend this little book. A chapter at a time with a cigar or pipe will prove both stimulating and interesting. Dr. White calls his study an "inquiry in the field of medical philosophy." He believes that too much time has been devoted to analytic studies in medicine and not enough to synthesis, to an attempt to put together the data of analytic science and formulate a theory of disease as such. This is the special province of philosophy. Only in the work-shop of the mind can one formulate a theory. To this task Dr. White brings one of the best mental work-shops in America, a mind rarely educated and endowed. To refute those who scoff at theories he quotes Whitehead. "It is no paradox to say that in our most theoretic moods we may be nearest to our most practical applications."

Dr. White regards the living body as an energy system in conformity with the latest scientific thought on the ultimate structure of matter. Mind and body are not separate entities, disease is an inadequacy of organ or mind or both. When one is affected, the other reacts also. Mental stresses have physical reactions and physical disease causes mental reaction. Symptoms may be grouped in pairs of opposites according to the law of action and reaction. If we could read symptoms correctly we could understand the patient's subconscious mind and find therapeutic indications. There is much more that is most interesting and suggestive. One catches brief glimpses of great possibilities when our capacity and knowledge have sufficiently increased.

E. B. SMITH.

THE NATURAL INCREASE OF MANKIND. By J. SHIRLEY SWEENEY, M.A., M.D. Octavo of 185 pages. Baltimore, The Williams and Wilkins Company, 1926. Cloth, $4.00.

This critical study of the growth of population thoroughly covers a complicated problem in a clear logical way. The relative values of vital indices or birth-death ratios with the effect of war and pestilence on their trends is analyzed by an ingenious statistical method. International agreement to control over population by a "League of Stationary Populations" is the author's solution. A philosophical introduction by Dr. William H. Welch in which he calls attention to Malthus' disapproval of contraceptive measures adds much to the book.

C. A. G.

THE SCIENTIFIC BASIS OF CHEMOTHERAPY. By IWAN I. OSTROMISLENSKY, Ph.D., M.D. 12mo of 142 pages. New York (The Author), 1926. Paper.

This little volume of 137 pages is Part I of a series of several monographs in preparation and to be issued as completed. They represent the results of 12 years of research in chemotherapy in Russia and the United States. The author presents his "dualistic theory" of the mode of action of specific anti-bacterial drugs. He concludes that a chemotherapeutic agent, to be effective, must consist of a chemical toxic for bacteria plus a colloid which has a special affinity for bacteria. These absorb the colloid allowing the toxic fraction to act upon the bacteria. He presents experimental work with salvarsan and quinine which seem to support his theory. If true, it would seem to rationalize chemotherapy and open up wide fields for research. The author then describes pyridium, a relative of quinine, which he first synthesized. He cites experiments to prove its bactericidal power and safety for use in animals and humans either by mouth or local application. He does not recommend its use intravenously. He claims this drug has a specific effect on various cocci but little or none on bacilli and concludes with numerous case reports showing good results in pyogenic infections and acute and chronic gonococcus infections in both sexes.

E. B. SMITH.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE. By J. J. R. MACLEOD, M.D., LL.D. Assisted by ROY G. PEARCE, A. C. REDFIELD, N. B. TAYLOR, and J. M. D. OLMSTED, and by others. 5th Edition. Octavo of 1054 pages, with 291 illustrations, including 9 colored plates. St. Louis, The C. V. Mosby Company, 1926. Cloth, $11.00.

A new edition of Macleod is always interesting and welcome and needs no reviewer's praise.

While medicine is progressing in every direction, the fields of physiology and biochemistry are forging ahead so rapidly, that it is barely possible for any book to keep abreast. This explains the frequency of new editions. Dr. Macleod and his co-workers are to be congratulated on their successful attempt to be up to date in these extremely important and fascinating subjects.

The sections on carbohydrate metabolism, respiration, and ductless glands have been rewritten and are just brim full of the latest developments along those lines.

Like the previous editions, this one is also characterized by a clear presentation, an interesting style and excellent typographical work.

BENJAMIN DAVIDSON.

THIS BUSINESS OF OPERATIONS. By JAMES RADLEY, Foreword by J. M. WITHROW, M.D. 16mo of 96 pages. Cincinnati, The Digest Publishing Company, 1927.

This very small book of 96 pages with a foreword by J. M. Withrow, M.D., Chief of Staff of the Christ Hospital, Cincinnati, was written, apparently with the idea of being humorous. The idea is old and the whole story could be easily taken care of in five pages. A layman might find snatches of humor in it but from a professional standpoint it is a total loss.

PRINCIPLES OF PHYSICAL CHEMISTRY FOR MEDICAL STUDENTS. By PHYLLIS M. TOOKEY KERRIDGE, M.Sc. With Introduction by PROF. A. V. HILL, M.A., F.R.S. 12mo of 134 pages, illustrated. London and New York, Oxford University Press [1927]. Cloth, $1.75. (Oxford Medical Publications).

The author states, in a charmingly written preface, "The aim of this work is to give him (the student), briefly, some of the principles of physical chemistry which have been, up to the present, of great service for application to physiological and medical problems." There is an introduction by Prof. A. V. Hill, in which he says, "Teaching, like physiology, is an experimental science . . . Some years ago, I was fortunate enough to persuade Mrs. Kerridge to experiment in the teaching of physical chemistry to medical students. She has been as successful in this as in her other researches . . . The ordinary text-book of physical chemistry is too large, too abstract, to be suited to the needs of a student of medicine . . . There is no book which exactly meets the need."

While this little book may not exactly meet that need, it fills a gap. It furnishes a good birdseye view of many important physico-chemical principles. They are described in terse, succinct and accurate statements. A few errors have been noted, as on page 31, where the statement occurs, "Henry's Law states that the solubility of a gas in a liquid varies directly as the temperature . . . ," and on page 41, where the definition of equivalent conductivity in general is confused with that for the equivalent conductivity at infinite dilution.

From this little book, the student can get an appreciation of the method and content of physical chemistry. It should prove useful as an introduction to the subject.

M. J. SHEAR.

DENTAL MATERIA MEDICA AND THERAPEUTICS. A Textbook for Students and Practitioners. By HERMANN PRINZ, A.M., D.D.S., M.D. 6th Edition, enlarged and revised. Octavo of 632 pages, illustrated. St. Louis, The C. V. Mosby Company, 1926. Cloth $6.00.

The sixth edition of this very well-known textbook of dental materia medica and therapeutics, maintains the high standard of the previous editions.

It is a comprehensive manual that covers everything of importance in the field of dental medicine. This is accomplished, not only by written word and numerous instructive illustrations, but also by a very well-planned division of the book into chapters, titles and subtitles.

In addition, it has a properly classified index of drugs, according to their uses, which will be of great help to the busy practitioner and makes this volume a handy reference book.

This materia medica will continue to be regarded as the standard textbook for the dental student and practitioner, as it has been for the last fifteen years.

OSCAR RODIN.

A TEXTBOOK OF EXODONTIA. Exodontia, Oral Surgery and Anæsthesia. By LEO WINTER, D.D.S. Octova of 364 pages, with 329 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $7.50.

This is a good sized book, not only on Exodontia but also on Anaesthesia and Oral Surgery. It is very profusely and clearly illustrated with diagrams, charts, and plates.

The subject of Anaesthesia in relation to Exodontia and Oral Surgery, which certainly is very important, takes up about a third of the book and includes not only one chapter on General Anaesthesia written by J. T. Gwathmey, but many chapters on local anaesthesia prior to extraction. This phase of the subject is quite lengthy but very readable and very practical, so that every detail is mentioned and its importance noted. Of special interest is the technique of injection, the accidents and infections resulting therefrom and the treatment or remedies for them.

Exodontia—the extraction of teeth—takes up the remaining pages and this in a very thorough and painstaking manner, not only in ordinary temporary and permanent teeth, but a good deal of space is given over to the problem of impacted teeth. This problem in Oral Surgery, which now seems to be occupying the attention of the dental profession, is discussed very adequately. Each different anatomical impaction is taken up separately and the operations described step by step. It is a field of Oral Surgery wherein Leo Winter has shown most experience and original work.

This volume, without doubt, is one of the best on the subject and one that can be highly recommended not only to the student and general dental practitioner, but to the Exodontist as well. OSCAR RODIN.

CLINICAL NEUROLOGY FOR PRACTITIONERS OF MEDICINE AND MEDICAL STUDENTS. Largely Based Upon the Book by PROF. DR. HANS CURSCHMANN. (A Free Translation with Changes and Additions.) By EDWARD A. STRECKER, M.D. and MILTON K. MEYERS, M.D. Octavo of 410 pages. Philadelphia, P. Blakiston's Son and Company, [1927]. Cloth, $3.50.

This book of clinical neurology has been written for the general practitioner rather than for the medical student. A short incomplete sketch of some of the neurological conditions are found but in order to save time for the busy practitioner, the authors have inserted a half page resumé of the points of interest at the beginning of the various subjects. The material in this book has been boiled down to such a consistency that it can easily be devoured and the entire subject of Neurology can be covered in one evening. O. C. P.

APPLIED PHYSIOLOGY. By SAMSON WRIGHT, M.D. With introduction by SWALE VINCENT M.D. Octavo of 418 pages, illustrated. London and New York, Oxford University Press, [1926]. Cloth, $4.50. (Oxford Medical Publications.)

This book is not, nor does its author claim it to be a scientific treatise on human physiology; but it is, as its author evidently intended it should be, a manual in which are presented, clearly concisely and systematically, those portions of such a treatise with which the up and coming practitioner of medicine should be familiar, because they are essential for intelligent interpretation of clinical findings. The physiological are brought into rational correlation with a considerable amount of morphological, pathological and clinical matters of fact and theory, the diagnostic value of the whole made apparent and the intimacy of interrelationship of human physiology, pathology and clinical medicine thus clearly displayed. Attention is directed, especially to the great value of physiologic evidence derived from careful analysis of certain disease states and further bedside study of the problems involved is encouraged because by means of such evidence *human* physiology is directly advanced.

The avidity with which alert practitioners have grasped and clinically applied certain recent advancements in animal physiology is outstanding evidence of a general desire for such a manual. Though not a large book it is gratifyingly comprehensive, unusually explicit and replete with current explanations of syndromes which confront, and are likely to confuse insufficiently informed clinicians; in this respect supplementing, rather than replacing standard treatises on physiology. Therefore it is frankly recommended as a valuable handbook to students, hospital internes and practitioners of medicine, alike.

The author's discriminative care in the selection of material proper to such a manual and his evident skill in the general arrangement and specific combination of that material are highly commendable, and he is to be congratulated for having accomplished the difficult task of furnishing our medical schools and profession with a really useful manual of *applied* physiology.

J. C. C.

OUR NEIGHBORS

PELLAGRA

Pellagra is an important disease in Oklahoma, and has been increasing in recent years. For the year 1926, 543 cases were reported with 242 deaths. Dr. Joseph Goldberger, of the U. S. Public Health Service, estimates that there are at least 5,000 cases of pellagra in Oklahoma.

These facts are given in two papers read before the Oklahoma State Medical Society in May and published in the June Journal of the Oklahoma State Medical Association.

Dr. F. M. Adams discussed the cause of the disease and said that the three causes usually given were first, infection; second, a deficiency in the proteins of food; and third, the lack of some constituent analogous to that in scurvy.

Dr. G. E. Harris described some outbreaks which he saw.

The symptoms may be grouped in three classes:

1. A dermatitis, beginning on the parts exposed to the sun.
2. Gastro-intestinal disturbances, especially pain and indigestion.
3. Neurological conditions, depression, insomnia, unfounded fears and dementia.

A diagnosis is made from the skin lesions. While these are usually early signs, the mental symptoms may become fully developed before the dermatitis.

The skin lesions are described as follows:

"Symptoms: There is a dermatitis of the dorsal surfaces of the hand gradually extending up the extensor surfaces of the arms and many times well above the elbows, and frequently a dermatitis of the neck, upper portion of the chest, the malar prominences, forehead and often times the dorsum of the feet. There is a reddening and ulceration of the buccal and lingual mucous membrane and in fact a disturbance of the entire gastro-intestinal tract with diarrhea."

The treatment is principally dietary, and is described as follows:

"The diet should consist of highly nutritious foods. Meats, as a rule, agree with pellagrins and should form an important part in the diet, especially, beef steaks and beef extracts. Milk and eggs should also be given at least twice a day. Beans, garden peas, black-eyed peas, spinach and, in fact, most garden vegetables. Fresh tomatoes in season should be given often and when the fresh tomatoes are not available the juice of canned tomatoes may be substituted.

"With this balanced diet the patient should be given two ounces of dry brewer's yeast each day. This may be mixed in the milk or be given with other foods and is usually well borne by the patients. We have been treating all of our patients with yeast for the past year, and the results have been very gratifying. I think it is a very advanced step in the treatment of this disease."

The results are described as follows:

"We receive in the State institutions the more advanced cases, and our results in the most serious cases have been good. In a very few days these patients begin to improve mentally and physically and in a few months are able to return to their home. They are advised as to the cause of the disease and a diet and treatment is prepared for them before they leave the hospital, but most of them are from the very poorest homes and do not have the funds to provide the balanced diet and already they are returning to the institution, from last year, with a new outbreak of pellagra. This is one of the serious questions, not only for the patient discharged from our hospitals but for the patient treated by the general practitioner, as most of the patients do not have the means to purchase the proper food and carry out the treatment as outlined."

WHY JOIN THE WOMEN'S AUXILIARY?

The *Virginia Medical Monthly* for July, 1927, tells why the wives of physicians should join the Women's Auxiliary. It is by Mrs. F. P. Gengenbach, Retiring President, Women's Auxiliary to the American Medical Association.— Editor's Note.

"The question has been asked so often —'What is this Auxiliary? What is it for?' Then follows the remark, 'I already belong to so many societies I do not wish to join another'.

"The women who are already members have caught the vision and see a great future for the Auxiliary, but to those who are not yet members, and we want you all to be with us, I would like to say, 'I belong to the Auxiliary—Because—

(*Continued on page 990, adv. xvi*)

IN THE
ACUTE INFECTIONS

Where vomiting is a factor or where a large amount of feeding overtaxes the infant's capacity, such as in pertussis and pneumonia and whenever it is desirable to reduce the fluid intake such as in enuresis or eczema

the use of

DRYCO

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is highly beneficial.

Pediatrists the world over have learned through many years of clinical experience that the secret of successful feeding of the subnormal infant lies in the use of this safe and nutritious milk.

DRYCO is simply milk in its most nutritious form, highly palatable and easily and completely assimilated. The weight charts of infants fed exclusively with DRYCO show a steady gain. In difficult feeding cases, where enfeeblement of growth is apparent, DRYCO is known to give optimum results.

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THE IDEAL LAXATIVE-ANTACID

The name "PHILLIPS" identifies Genuine Milk of Magnesia. It should be remembered because it symbolizes unvarying excellence and uniformity in quality.

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(*Continued from page* 988)

"'I believe that my husband's profession is one of the finest in the world; almost the greatest work a man can do.

"'His profession not only uses all of its knowledge and power to cure disease, but goes farther, and does what no other profession will do, that is work against its own interests in order to help humanity. By that I mean preventive medicine.

"'I believe that my husband is one of the finest men in his profession and I wish to back him in this work to which he gives his life.

"'I also belong to many other organizations, but I believe that first I should center my interests and energies on the work which is nearest my home and my heart because my position as a doctor's wife surrounds me with opportunities for investigation of the health question and an understanding of that problem which perhaps others may not have.

"'I have discovered that through the Auxiliary I may become the friend of any doctor's wife, not only of my state but of my country, and thus enrich my life.

"'And, finally, I believe in and am a member of the Women's Auxiliary to the A.M.A because I accept the following statement that each succeeding generation of the race is the beneficiary of the care bestowed by the womanhood of the generation before it.'

"And I wish to carry on.

"If you believe these statements to be true, will you not lend your strength to this movement by joining your state and county Auxiliaries and by attending their meetings?"

THE TEXAS STATE JOURNAL OF MEDICINE

The sixty-first annual session of the State Medical Association of Texas was held in El Paso, April 26-28, 1927, and is reported in the June issue of the *Texas State Journal of Medicine*. An interesting feature of the meeting was the report on the finances of the *Texas State Journal of Medicine,* which goes to each of the 3,600 members of the State Association. The *Journal* costs the Association about $7,000 more than its receipts, but the deficiency is made up by an appropriation of $2.50 out of the $10 annual dues per member as a subscription charge. The report is as follows:

JOURNAL FUND

Income—1926-27

Members' Subs.	$ 9,102.50
Non-Member Subs.	54.00
Sale of Journals	28.78
Sale of Advertising	17,024.93
Interest Earned	496.75
	$26,706.96

Expenses

Cost of Printing and Distributing	$15.635.91
Administrative	1,845.33
Salaries	6,701.55
Miscellaneous	587.13
	$24,769.92
Surplus	$1,937.04

The expenses are further itemized as follows:

JOURNAL FUND

Cost of Printing and Distributing

Printing	$13,470.89	
Engraving	711.10	
Mailing and Delivery	537.81	
Commissions on Advertising	621.96	
Discounts on Advertising	294.15	
		$15,635.91

Administrative Expense

Auditing	$ 100.00	
Bonds and Insurance	62.66	
Stationery and Supplies	373.43	
Telephone and Telegraph	185.91	
Rent and Janitor Service	972.75	
Office Postage	150.58	
		$1,845.33

Salaries

Editor	$ 4,506.63	
Stenographer and Bookkeeper	2,194.92	
		$6,701.55

Miscellaneous

Depreciation, Furniture & Fixtures	$ 405.25	
Bad Accounts	181.88	
		$587.13
Total Expense		$24,769.92

It is not the intention of the managers of the State Journals of Medicine that the Journals shall be money-makers, although that would be desirable. Practically all journals in the business and literary worlds would lose money if they charged no subscriptions. Medical Journals too, must meet deficits out of the annual dues of the societies.

The Gold Medal Cod Liver Oil

The Sesquicentennial Gold Medal awarded at Philadelphia as a recognition of the high quality of

PATCH'S FLAVORED COD LIVER OIL

At the Sesquicentennial Exposition held in Philadelphia last year, the E. L. Patch Co. was awarded the gold medal for "excellence of product."

This award is only one of the various forms of recognition which our product has received.

The recognition given to our product by the medical profession, after five years of clinical experience, constantly reminds us of our great responsibilities.

Here are a few reasons why Patch's Flavored Cod Liver Oil is dependable.

It is made in our own plants along the North Atlantic Coast, from FRESH LIVERS.

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TRICHINOSIS

The Atlantic Medical Journal for June contains an editorial on two recent outbreaks of trichinosis in Pennsylvania, caused by eating pork that had been imperfectly cooked. It quotes from a bulletin of the State Department of Health that salting, pickling, or smoking pork, when it is done thoroughly, will kill the trichinae, but thorough cooking is advised for all pork products. The subject is of interest to physicians of New York State, for cases of trichinosis frequently come to the attention of the State Department of Health. Concerning the cases and their symptoms, the editorial says:

"Originally these cases were reported to the State Health Department as typhoid fever. Department investigations, however, together with laboratory tests, indicated trichinosis."

"The incubation period of trichinosis is short, mostly five or six days in the cases here described."

"Trichinosis develops suddenly with abdominal pain, vomiting, diarrhea, headache, or chills as the first evidence of illness. The two principal symptoms of the disease are diarrhea and muscular pains. The diarrhea rapidly becomes profuse, the stools are frequently black and very offensive, later becoming slightly blood-streaked or mucous. The combination known as typhoid symptoms are commonly found in trichinosis."

"The muscle symptoms of trichinosis are characteristic, and are apt to begin from the second to the fourth day. The pain may resemble a generalized myalgia, or may be localized. The muscular symptoms are caused by the deposition of the trichinae in the muscles, and their character apparently depicts the stage of development of the parasite."

"The diagnosis of trichinosis is made substantially after laboratory confirmation. The disease is chiefly confused with typhoid fever, but may also be diagnosed as rheumatism or intestinal grip. The distinguishing points which differentiate trichinosis from typhoid are the sudden onset, profuse diarrhea, and muscular pains, and the presence of general typhoid symptoms. Particularly should trichinosis be considered when a typhoid suspect is found lying with arms flexed and complaining of pain upon extension. With this combination of symptoms, inquiry should be made in regard to the recent eating of pork, chiefly raw pork or smoked sausage. If such a history is obtained, and even in its absence, a blood smear should be made for a differential count to determine the presence of eosinophilia. There is a marked rise in the eosinophilic count, which persists after the cessation of symptoms, although late in the attack the blood picture shows the changing of the eosinophils to basophils, but the percentage of these stippled cells will be high. Eosinophile counts up to 42 and 47 per cent were obtained in the cases here related.

"Specimens of any pork sausage or other raw pork products from which the patient has eaten should be sent to a laboratory for examination. A piece of deltoid muscle removed from one of the Lancaster patients was found to contain trichinae."

"In treatment, recent suggestions have indicated the value of neoarsphenamin, or a similar drug, as a parasiticide, but such treatment should probably be administered as easly as possible and before the stage of encysting has commenced."

PHYSICIANS ON THE MAYFLOWER

Dr. Samuel Fuller was the physician to the Plymouth Colony until his death in 1633, from an infectious fever. He was a wise man, and was skilled in the practice of medicine. He was successful in treating Massasoit, the Indian chief, who seemed to be dying from an abscess of the mouth. But it has only recently been discovered that a doctor, named Giles Heale, was among the crew of the Mayflower. This fact is discussed editorially in the July issue of the Illinois Medical Journal, which says:

"The discoverer of the great unknown is Charles Edward Banks, a member of the Massachusetts Historical Society, and it is only a few days since he published the story. He devoted 1922-26 to delving in the national archives of England, France and Holland and to special efforts to identify Pilgrims unknown. A copy of the muncupative will of William Mullins, who died on March 3, 1621, had been found in 1886 by H. F. Waters, and in 1926 Mr. Banks discovered the original. Here were the veritable signatures, as witnesses, penned by Governor John Carver, Captain Christopher Jones of the Mayflower (whose Christian name had been unknown) and Dr. Giles Heale. This was the first will ever made in New England.

"The medical man had been admitted to the London guild of surgeons on August 3, 1619, xactly a year before the Pilgrims left Holland, nd it was the vogue for surgeons to serve on passenger ships voyaging 'beyond seas.' He ame to America voluntarily, and not improbably imed at commencing his career in a new ountry. The pioneer's fiber would, however, eem to have been absent from his makeup, for e left Plymouth in April, 1621, and practiced medicine at London until his death on or about February 3, in 1652 or 1653."

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BACTERIA CAUSING STONE DECAY

That living bacteria can cause disease and degeneration in building stone is the assertion made in the London letter of the June 11th issue of the *Journal of the American Medical Association* from which the following quotations are taken.—Editorial Note.

"The report of the store preservation committee has been submitted to the building research board of the department of scientific and industrial research. Broadly speaking, this study has two aspects: (a) chemical, physical and geological; and (b), biologic.

"It appears that the microstructure of building stones is of primary importance and that the distribution of the pores in the stone is a preponderating factor in determining the rate of attack. It was realized from the first that the investigation of the biologic activity in such a specialized medium as was presented by stone would call for new methods of bacteriologic technic. A good beginning had been made in this direction and it was now possible to determine the actual bacterial content of different kinds of stone and of the same kind of stone under different degrees of weathering. It had been established that stone, apparently sound, might contain bacteria in considerable numbers; that, in fact, microorganisms are present in the stone quarry to a depth of two feet below the quarry face. Stone floras were limited to a small number of species; so far only twelve had been observed. These have been isolated and maintained in pure culture and are now under investigation, culturally and physiologically, with a view to the appraisal of their importance in the processes of stone decay. It is not yet possible to say whether bacteria play an important part in the processes of stone decay. On isolating the bacteria from a certain specimen of weathered stone, the colonies which developed on the plate were all of one kind. This fact, sufficiently significant in itself, was rendered still more so when, on investigation of the characteristics of this species, it was found capable of making luxuriant growth on an artificial medium so poor in organic food material that the life of other bacteria was barely supported."

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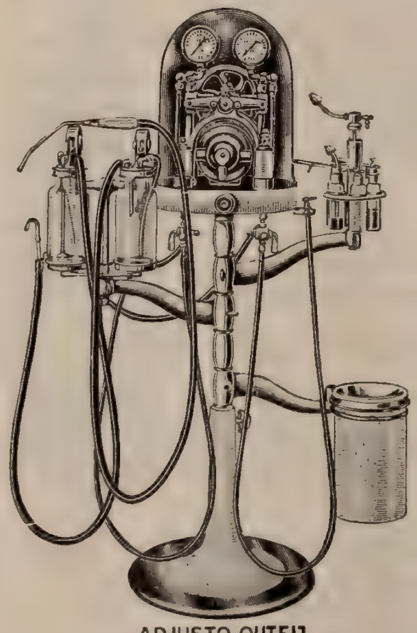

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OPERATING IN PRE-ANTISEPTIC DAYS

Physicians of the present day can scarcely realize the conditions under which surgical operations were done in the years as late as the early "eighties." There was much of the spectacular and the dramatic (which was a part of the capital of many great surgeons) in the operating room. Skill was shown by rapidity of operating in afternoon dress that was proper for a parlor reception. Such a scene is described by Dr. R. J. Reed in the *West Virginia Medical Journal* of June.—EDITORIAL NOTE.

"In every medical center there is usually found one striking personality possessing certain outstanding, fascinating characteristics by which the crowd is drawn. A clinical professor of surgery was the particular star of old Bellevue, Professor James Woods, familiarly and affectionately known as 'Jimmie Woods.' He performed every Saturday afternoon in the large amphitheatre in the great dome of the hospital, and it was always filled. As he entered from a wing in the rear, to the operating area amid great applause, he was followed by numerous satellites, an actual cavalcade, the chief of which was a Mr. Ford, mechanician extraordinary to the House of Tieman. It was Mr. Ford's prerogative to preside over the instruments and make sure that Jimmie was provided with perfect tools. These instruments were already in place on side tables when the performers entered. They rested in beautiful rosewood cases lined in velvet, until Jimmie should give the signal, when Mr. Ford in street attire and with unkempt hands would speedily produce the shining blades. Jimmie himself was always attired in full afternoon dress, which in that day was the Prince Albert coat with a skirt unusually long and very flowing. A red rose invariably decorated the lapel of his coat and a white bow tie completed his operating outfit. When the patient was brought into the amphitheatre already etherized and the Esmark in place, the sign given by Jimmie for beginning proceedings was the turning back of the sleeves of his Prince Albert. His favorite operation was amputation of the thigh and it was a dull Saturday if he did not have at least one victim. The moment the cuffs of the sleeves went back, the long steel blade came forth from the velvet lined box and the operation was on. One swift circular sweep and the skin flap was completed, the great knife going on, leaving the hand of the operator and striking the floor beyond with a bang—no time to pass an instrument to an assistant. This touch of the dramatic always gave a thrill to the students' spines, which was most satisfying and enduring. The flap was quickly dissected back, the muscles severed, the bone sawed through, and the act was over in less than two minutes. There was no preparation of the field for operation. There was no suggestion of any sterilization in gowns or towels or instruments or in the attire of assistants. The wound was left open and packed with oakum saturated with Balsam of Peru. This was a specimen of the surgery of Bellevue Hospital in the year '84."

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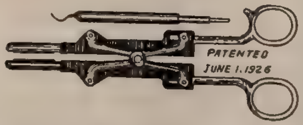

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THE CANCER EXHIBIT OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

By FRANK OVERTON, M.D., PATCHOGUE, N. Y.

A CANCER Demonstration and Exhibit was held by the Medical Society of the State of New York in Niagara Falls on Thursday, May 12, 1927, the last day of the Annual Meeting of the State Medical Society. This Exhibit followed the precedent which was set by the Society in the preceding two years, to have an all-day exhibit devoted to some broad medical topic. That in 1925 in Syracuse was on Tuberculosis; and that in 1926 in New York was on Syphilis, and was the most comprehensive exhibit that had ever been got together on that subject. An account of the exhibit was published in this Journal for June 15, 1926, a whole number being given principally to the subject.

The Demonstration of each year was under the auspices of the Committee on Scientific Work, of the State Society, that of 1927 on Cancer being in the immediate charge of Dr. Burton T. Simpson, Director of the State Institute for the Study of Malignant Disease, in Buffalo. It was held in the Ball Room and an adjoining parlor of the Hotel Niagara, the headquarters of the State Society. It consisted of exhibits of specimens, educational material, and the presentation of papers designed to instruct general practitioners of medicine in the fundamental principles of anti-cancer work. But in order to understand the Exhibit and Demonstration, one should have in mind a general picture of cancer and the lines along which research has been conducted. It has therefore seemed best to prepare a description of the Cancer Demonstration in three parts:

1. An outline of the cancer problem.
2. A description of the State Institute for the Study of Malignant Disease.
3. An account of the Exhibit itself.

THE CANCER PROBLEM

What Cancer Is: The word *Cancer* is a lay term for an abnormal growth of new tissue of a malignant nature, that is, extending indefinitely until it causes the death of the person or animal on which it grows. The new growth is derived from the natural tissues of the body, and consists of the same kinds of cells as those of normal tissue; but they differ from the normal chiefly in the manner in which they grow. When normal tissues are wounded, they heal themselves by the growth of new cells which spring from healthy ones surrounding the wound. But the various groups of cells of the body differ widely in their ability to multiply and grow. Those of epithelium and connective tissue grow with great readiness and rapidity, while those of muscles and nerves grow very slowly or not at all. It is the epithelial and the connective tissue cells that multiply and become cancers, those of epithelium producing carcinomas, and those of connective tissue becoming sarcomas. But normal tissues, especially blood vessels and ordinary connective tissue, also multiply and grow with the cancerous cells.

In a general way it may be said that the degree of malignancy of a cancer may be estimated by the development of the cancer cells toward the nature state,—that is, the more immature the cells are, the more malignant is the new growth.

The scientific recognition of malignant tumors is made by their examination microscopically. This recognition may often be easy, or it may require all the skill of a trained specialist of long experience. This skill is especially required when a tissue, such as the edge of a gastric ulcer, begins to take on a malignant character.

Malignancy depends on two factors:

1. The growing cells.
2. The soil in which they grow, that is, the whole body of the patient.

It is accepted that cancer does not spring from a perfectly healthy area. It is likely to grow on a spot that is irritated or injured. In producing cancers experimentally, the irritation must be long continued. The first experiments to produce cancer in mice and rabbits failed because the irritation was carried on for only a short time.

Some animals will not produce cancers, even after long-continued irritation. The response of the body to an irritation may be compared with that of a horse to an unusual irritation. One of a racing breed will run away at the touch of a whip, while a draught horse remains calm.

The response to irritation may also be illustrated by three brothers. The first one inherits stable cells. He smokes to excess, but the cells of his lip or tongue do not respond to the irritation, and his mouth remains normal

The second brother inherits unstable cells, but he does not smoke or do other things to irritate his tongue, and his mouth, too, remains normal.

The third brother inherits unstable cells. He smokes and develops cancer of his tongue.

Signs of Cancer: What signs are suggestive of cancer? This question may be answered by a consideration of the organs in which cancers develop the most frequently.

The stomach is the most frequent site of cancer. It affects both sexes equally, for both men and women have stomachs and subject them equally to use and abuse. Ten per cent of recognized gastric ulcers develop into cancers.

A stomach cancer develops insidiously, and when it is recognized it is usually too far advanced for removal. It usually produces signs of indigestion, that common American disease. Suggestive signs are, 1, X-ray disclosures; 2, occult blood in the stomach contents; and 3, absence of hydrochloric acid in the gastric juice.

The practical point for a family physician is to have cancer ever in mind whenever he treats a case of indigestion. He may examine and treat dozens and hundreds of cases of indigestion without running across one of cancer; but it is the recognition of the unusual that marks the skilled doctor.

The breast is the second most frequent site of cancer. The male breast seldom becomes cancerous, for it contains only rudimentary tubules, and seldom has secreting glands, which are the parts from which cancer springs.

Much of the experimental work on cancer has been done on cancer developing spontaneously in the breasts of white mice. The Institute has a strain of mice in which half of the females develop cancers of their breasts. When the experimental work was first undertaken some twenty-five years ago, mice with a tendency to breast cancer were difficult to obtain; but the imbreeding of cancerous mice has developed a strain in which many of the females develop cancers. These mice are the subjects of much of the experimental work on cancer.

Irritation of the breasts of the mice hastens the development of metastases from the original cancer. Massaging the breasts will cause a mouse cancer to metastasize three months instead of the usual average of five. This point may be applied to women. Frequently examining and feeling a lump in the breast is an effective means of causing it to spread to other organs.

The incidence of breast cancer in mice is much increased by the removal of the young as soon as they are born. It may be that the failure of American women to nurse their children is a factor in the prevalence of cancer. It is a curious fact that no one has ever reported a cancer in the udder of a cow.

Cancer frequently effects the uterus, especially the cervix, which is peculiarly subject to irritation and chronic inflammation.

Cancer of the intestine is frequent at each end of the large intestine, the caecum and the rectum, both of which are subject to irritation. Cancer is rare elsewhere in the intestine.

These examples illustrate the important part that irritation has in the causing of cancer to develop. A practical point for every physician is to have consciously in his own mind the possibility of cancer when he is confronted with a tumor, or an old ulcer, or any chronic inflammation or irritation.

Malignancy: A characteristic of malignancy is that secondary cancers develop in parts of the body remote from its first site, particles of the original being carried by the blood or lymph. This transportation of the causative agent of cancer from one part of the body to another suggests the possibility of transplanting a cancer from one animal to another. Many forms of cancer may be transplanted from one mouse to another, and the tumors which are produced may grow to a large size and eventually produce death. But there is always this peculiarity of transplanted tumor, it remains merely a graft and does not cause the body of the host to be cancerous. However, there is one form of cancer which may be transferred by inoculation and which causes the inoculated animal to become cancerous. What is known as the "Chicken Sarcoma" of Rous will produce a real sarcoma when it is inoculated into a chicken. This tumor originated from a single specimen of Plymouth Rock fowl that was brought to the Rockefeller Institute, and no other specimen has been discovered. Cultures from this specimen failed to grow at first until they were transferred to Plymouth Rock fowls from the same stock as the first case, but transplants now grow in most varieties of fowl.

Experiments with the chicken sarcoma of Rous have been the bases for alleged reports of the discovery of a living organism that produces cancer; but the State Institute has shown that extracts from a placenta or embryo may be used for the tumor extract in one stage of the experiment.

Curability of Cancer: Is cancer curable? The answer to this question is similar to that regarding what was called "inflammation of the peritoneum" a generation ago, but what we now know to have been appendicitis. Most cases of inflammation of the peritoneum were curable by the removal of the appendix. This fact is now so well known that physicians advise the operation and people accept it without question. But after the appendix has ruptured and extensive peritonitis has set in, inflammation of the peritoneum is as incurable as ever. The removal of the appendix is the only recognized cure for appendicitis.

The removal of the cancerous growth is the only recognized cure for cancer. Surgery is the most efficient method of their removal. But the growths will recur if metastases are left. The prevention of a recurrence depends on an early recognition of the tumor and an operation before metastases have formed.

Most people and some doctors do not consent to operations unless the diagnosis of cancer is positive. A diagnosis in the early stage of cancer is possible only by means of a microscopic examination. It has been the custom to excise a bit of new growth, and sent it to a laboratory for examination and report. This procedure, called biopsy, has been condemned as leading to fatal delays and as opening up the channels for carrying metastases through the body. Biopsy performed with great care is done regularly at the State Institution in order to make certain the diagnosis of every case. If a biopsy is not done and a patient consents to an operation, an immediate examination of the tumor or specimen is done by a modified frozen section method in which a specimen of the tumor is boiled in formalin for one minute, and is then frozen, sectioned, stained, and examined, the whole procedure taking less than ten minutes if it is done by an expert. The operation is then continued according to the indications of the examination.

Next to surgery, radiation offers the best means of curing cancer. The theory of its action is that it will destroy the cancer cells while leaving the normal cells unharmed. It acts with considerable certainty when the cancer cells are reached with the full force of the radiant waves.

Radiant energy is derived from either the X-ray or radium. The agent in both is the same and consists of the so-called gamma rays. While radium is breaking down, it gives off alpha rays which are particles of positive electricity; beta rays, which are particles of negative electricity; and gamma rays, which are not material particles, but are vibrations of short wave lengths like those of the X-ray.

Gamma rays are given off from an ordinary X-ray tube in an amount thousands of times greater than those from the larger capsules of radium used in treatments; but since the effect of the rays varies inversely as the square of the distance of their source, a small amount of radium in contact with the flesh is as powerful as a large amount of X-ray from a tube a foot or more from the flesh.

Radiation is a powerful agent whose effects are known as accurately as those of strychnine or arsenic; and whose dosage must be adjusted to the effects that are desired. Their application by an amateur is as dangerous and ineffective as the administration of strychnine by a layman.

The intelligent treatment of all recognizable cases of cancer by surgery or radiation would cut the present death rate in half. It would not reach one hundred per cent of cure, because many forms of cancer are not recognizable in their early stages by present methods of diagnosis.

It is unfortunate that incipient cancer does not give pain or produce alarming symptoms of illness. If cancer were as painful as toothache, or appendicitis, every person would demand relief in its early stage, and would demand an early operation for its removal.

The Cause of Cancer: The cause of cancer still remains an alluring mystery, whose solution is often prematurely announced. The ordinary principles on which pathology is founded do not apply to cancers. A cancer is not a manifestation of inflammation, or infection, or allergy, or heredity. Yet cancer is curable in the same sense that tuberculosis or "inflammation of the peritoneum" is curable.

The curability of cancer, like that of tuberculosis, depends on two principal factors:

1. Early recognition and treatment.
2. Accessibility.

It is fortunate that the parts of the body on which the majority of cancers are located are accessible to sight or touch and give signs and symptoms early in the disease while it is in a curable state.

The immediate problem in cancer is the education of both physicians and the people so that they will take advantage of the means of cure which are already available.

THE STATE INSTITUTE FOR THE STUDY OF MALIGNANT DISEASE

The Legislature of New York State established the Institute for the Study of Malignant Disease in 1898 by the appropriation of $10,000 upon the advice of Dr. Roswell Park of Buffalo. The medical profession expected that the original appropriation, generous for its time, would enable research workers to discover a specific cause and cure of cancer within a year or two. Although this immediate object has not get been attained, the Institute—the first of its kind in the world, has been the testing station where every conceivable clew concerning cancer has been tried out and the grains of truth separated from the chaff of theory, and exploitation. The work of the Institute is the recognized standard by which all cancer research and methods of treatment are judged. Its work has been expanded until at present the appropriations for maintenance alone is $150,000 annually.

The Institute was originally placed under the Department of Health, and then it was made independent under its own trustees; but within a year it has returned to the jurisdiction of the Department of Health, with its Director practically in full charge of all its activities.

The success of the Institute has been largely due to its Directors, who, fortunately, have never been hindered or impeded in their work. The first Director was Dr. Harvey R. Gaylord, who was peculiarly well fitted for the position by temperament and training. On his death in 1924 he was succeeded by the present Director, Dr. Burton T. Simpson, who had been connected with the Institute almost from 1910, and was in charge of the diagnostic work of the institution.

Another great factor in the success of the Institute has been the cooperation of the physicians throughout the State; and this in turn is the reflection of the friendly attitude of the Staff. Visiting physicians have always been welcomed, and have been given friendly assistance, as they have sought advice and information. The Directors and members of the Staff have always been ready to respond to requests to give papers before medical societies; and have shown the happy ability and inclination to make their addresses simple and practical. The Institute has a friendly attraction for physicians.

The fortunate choice of a Director was a great element in the successful growth of the Institute. Concerning Dr. Gaylord's peculiar adaptability for his position as Director, the Annual Report of the Institute for 1924 contains the following paragraphs written by his successor, Dr. Burton T. Simpson:

"Dr. Gaylord was one of the pioneers in laboratory cancer research. He has left a record of much work accomplished, but to my mind the greatest monument which he has left is the State Institute for the Study of Malignant Disease. Had it not been for his indefatigable and persistent efforts when appropriations were difficult to obtain, the laboratory would have succumbed. Not only did he maintain it, but he built it up to a magnificent institution which is favorably known throughout the scientific world.

"He had a wonderfully broad acquaintance with men throughout the scientific world and had many very warm friendships. He was generous to a fault. Returning from abroad he always brought back a gift for each member of the Institute.

"His whole life was centered about the Institute and even during the last weeks of his illness when he was very low, he was making plans for work which he thought was desirable."

While the Institute was founded primarily for impersonal research, it has extended its field of investigation to include the treatment of cases. One of its great functions is to develop the means by which practising physicians throughout the State can apply the present scientific knowledge effectively in the cure of the disease. The work of suppressing cancer is conducted from three concentric spheres of influence. The central sphere is the Institute, which originates and standardizes the methods. The next sphere is composed of the practicing physicians and their associated helpers, the nurses and other professional assistants. The outer sphere is composed of the people any one of whom may possibly be a cancer patient.

The Institute and similar groups of investigators are the producers of knowledge; physicians are the salesmen; and the people are the buyers and users of the knowledge. The development of the means of educating the people regarding cancer is as important as scientific research into the nature of the disease; and this phase of the cancer problem receives its due share of attention in the Institute.

The Institute is conducted under seven departments, each in charge of a chief.

1. Department of Pathology: The Department of Pathology is conducted by Dr. Alphonse A. Thibaudeau, assisted by Dr. Gerty T. Cori, and five technicians. This Department is the one with which physicians are the most familiar because its diagnostic service is at the disposal of physicians. Any doctor can send a specimen of tumor to the Institute and receive a prompt report regarding its nature. About thirty specimens are received on every working day of the year. Each one is sectioned and stained, and a number of slides from it, are filed away for future reference. Specimens from over 55,000 cases are on file, and include almost every known form of cancer or cancer-like material.

The following table from the yearly report of 1926, shows a summary of the year's work of the Department:

Total number of cases,	7,966	
Malignant:		
Carcinoma	1,371	
Sarcoma	202	1,573
Non-malignant:		
Benign	2,152	
Inflammatory	4,076	
Borderline	117	
Insufficient	48	6,393

The diagnostic work of the Department is constantly increasing at the rate of ten or fifteen per cent yearly. At the same time the larger hospitals are establishing their own pathological departments, and are making their own examinations of tissues which they formerly sent to the Institute. The constantly increasing interest shown by physicians in the diagnosis of cancer is a most favorable indication of the ultimate conquest of the disease.

The procedure of sending a sample of tissue to the Institute for examination is simple. The specimen is to be placed in a solution of one part of commercial formalin in four parts of water, and mailed to the Institute for the Study of Malignant Disease, 113 High Street, Buffalo, N. Y. A brief history of the case should also be sent with the specimen.

The Pathological Department makes complete autopsies on as many cases as possible. During the last year thirty-seven were made on patients who had died in the hospital, and on whom exact observations had been made. These cases have afforded unique opportunities for the study of the effects of treatment on various kinds of tumors.

The Department is always ready to supply microscopic slides and photomicrographs to investigators and teachers, and to welcome physicians who wish to study pathological conditions.

2. The Department of Biological Chemistry and Clinical Pathology: The chemical work of the Institute is conducted by Dr. Carl F. Cori and three technical assistants. This Department carries out the routine analyses of patients in the hospital and dispensary, and makes studies in metabolism and other living processes. The scope of its activities is shown by the following table.

Wassermann reaction	1,200
Kahn precipitation tests	1,200
Neisser tests	600
Urine analysis	3,000
Kidney function tests	65
Sputum analyses	50
Bacteriological examinations	50
Gastric contents	40
Stools	10
Fluids from chest and abdomen	15
Spinal fluids	6

Several papers concerning work done in this department were presented before scientific societies.

During the past year, this Department has made special studies regarding the infectious nature of the chicken sarcoma of Rous, and in the metabolism of tumor cells, especially their utilization of carbohydrates and oxygen.

3. The Department of Biology: The animal experimentation work of the Institute is conducted by Millard C. Marsh, M.S., and two technical assistants. This Department is located on a large farm owned by the State in Springville, thirty miles south of Buffalo. This site was chosen for the special purpose of studying cancer in trout. During the past year the Department has investigated the effects of massage in hastening the development of breast tumors in mice, and has tested the injections of selenium and colloidal lead in the cure of cancer. It has also carried on an extensive series of experiments in which mice are kept in an atmosphere under compression.

The Department is also conducting tests on the effects of dyes injected into the circulation. Those physicians who attended the Exhibit and the State Medical Society will recall the white mice whose ears and feet were brilliantly blue from the injection of methylene blue into the blood. While these experiments have not pointed the way to a cure of cancer, they are valuable as indicating the dosage of various chemicals which a mouse can endure.

4. The Hospital and Dispensary: The examination and treatment of cases of cancer is an important activity of the work of the Institute. This work is in charge of Dr. Bernard F. Schreiner, and a staff consisting of six clinical assistants, Drs. L. C. Kress, J. B. Mulholland, C. C. Herger, C. A. Quinn, R. C. Wende, and J. W. Kohl. Specialists on the staff are Dr. E. M. Watson, Urologist; Dr. L. M. Smith, Laryngologist, and Dr. K. F. Eschelman, Esophagoscopist.

The hospital has twenty-five beds, and is designed for the accommodation of dispensary cases who require continuous observation or treatment. The 1926 report of the Department states:

"During the past year there have been admitted for examination 844 new patients. Of the 884 new patients 186 were not accepted for various reasons. Some of the patients did not have malignant disease. Other cases, with malignant disease, were beyond any possibility of even palliative treatment, while still others would not comply with the regulations required for admission to the Institute. The total number of dispensary visits between January 1, 1926, and December 31, 1926, was 7,600.

"On December 31, 1926, there were on file 5,826 complete case histories of which 1,396 were current ones."

Concerning the advanced or incurable stage in which the patients are often received, the report says:

"Unfortunately, some of the patients that come to the Institute have been inadequately treated by radiation by persons not entirely competent to give this treatment. Ofttimes we are unable to do anything for these patients at the time on account of the radiation they have already had and because of the delay valuable time is lost. It is hoped that by a wide distribution of our methods, as given in our publications, we will obviate this deplorable condition."

Among the special studies made in the hospital during 1926 were the effects of sodium oleate, colloidal lead, liver extracts, and a mistletoe preparation, all of which had been widely reported as cancer cures, and found to be of no benefit. Concerning these experiments, the 1926 report says:

"While it takes only a few words to report on the results of these investigations, yet days and weeks were needed in carrying out the individual experiments."

The hospital staff performed 70 major operations during 1926 and 520 of a minor nature, including the removal of tissue for diagnosis. A great number of treatments with X-ray and radium were also given, and their results carefully recorded.

5. The High-Voltage X-ray Department: Radiation ranks next to surgery as an efficient therapeutic agent in cancer, and is extensively used in the Institute. The Radiation Department is in charge of Dr. Walter L. Mattick, assisted by Dr. Anna M. Schulz and three technicians. Concerning this Department, the report of 1924 says:

"The work of the X-ray Department consists of locating and outlining definitely the malignant lesions, the determination and measurements of the doses and the application of high power X-ray to the patients to whom this type of therapy is most suited.

"Besides the routine treatments, research problems are undertaken in collaboration with other departments of the Institute.

"It is now recognized that there is little or no difference in the biological effect, whether one uses radium or X-ray. The choice resolves itself into a question of the most convenient and efficient method of application."

Radium is applied by means of its emanation, which is taken from the radium salt daily and placed in sealed tubes of glass, platinum, or gold. The strength of each tube is tested so that the dosage of the emanation may be accurately estimated. (See page 1045.)

The work of the X-ray Department is marked by exactness. The penetration of radiant rays and their effects on the skin and tissues have been accurately investigated, and the direction of the application to deep-seated tumors have been plotted so that the exact amount of radiation reaching every part of a tumor and the surrounding tissue may be known. Thus the effects of excessive single doses may be avoided, while effective quantities may be applied.

6. Physics Department: The preparation of radium emanation and the accurate measurement of the output of X-ray bulbs is the work of the Department of Physics. This Department is in charge of M. C. Reinhard, M.S., and three assistants, together with an instrument maker, a mechanic, and a glass blower. These workers have charge of the radium owned by the Institute, and they prepare the tubes or seeds containing the emanation which is used in the treatments.

The workers also test the output of radiant energy of the X-ray machines, and construct elaborate pieces of apparatus for measuring and regulating radiant rays and emanations. Their work is highly technical, and yet practical, and is essential in securing accuracy and uniformity in the dosage of radiant energy.

7. Radiography and Photography: The preparation of photographic records is the work of the Department of Radiography and Photography, which is in charge of Dr. L. C. Kress, assisted by a photographer. This Department makes X-ray plates and films, and photographs patients and tumors, and makes photomicrographs, lantern slides and charts.

The Library: The library of the Institute is in charge of Miss Scheffler. It contains 3,453 volumes, while 48 periodicals are on file. It maintains bibliographies on subjects relating to cancer, and conducts researches into the literature of malignant diseases.

Morale: The usefulness of an institution depends very largely upon the morale of its staff, two elements of which are enthusiasm and generosity. The spontaneous exhibition of these two qualities by the members of its staff is a great element in the maintenance of the universal support which the Institute receives from the physicians of New York State.

THE EXHIBIT AND DEMONSTRATION

To arrange a cancer exhibit that makes a strong appeal to the average physician is difficult for two reasons:

1. The fundamental principles of cancer control are fairly well known to most practitioners of medicine, and physicians are likely to assume a we-have-seen-that-before attitude.

2. Skill in diagnosis and treatment consists largely in attention to a multitude of details whose comprehension requires intensive study.

However, the cancer exhibit of the Medical Society of the State of New York was of great value in illustrating the points which are now being emphasized by the State Institute for the Study of Malignant Diseases, the American Society for the Control of Cancer, and other organizations engaged in cancer control.

The Exhibit was arranged under the following departments:

1. Gross Pathology: An exhibit of gross pathology was furnished by the laboratories of the Buffalo City Hospital under the direction of Drs. William F. Jacobs and Alvin G. Foord. It presented about ninety museum specimens of various organs showing different types of malignant growths. It exhibited most of the malignant tumors commonly found in the various locations, including those in the mouth, throat, chest, abdomen, lymphatic apparatus, cranial cavity and of the bones, all collected from the surgical and autopsy material of the Hospital. Several specimens of lung carcinomata mounted with the entire lung and mediastinum intack were particularly striking.

Various types of carcinoma of the stomach were also shown, including several of the common types: fungating medullary growths, Polypoid types, colloid cancers and scirrhous varieties showed graded degrees of involvement, including some showing extension throughout the entire organ with marked shrinkage of the viscus.

Several primary liver cancers were shown, some of the liver cell variety and others derived from bilary ducts. Livers showing metastatic growths were displayed for comparison.

Carcinomata of the colon and rectum, and several of the uterus, ovary, esophagus, and tongue, composed a large part of the exhibit.

Several brains showing gliomata, and others showing carcinoma or sarcoma metastases, were also shown. Varieties of sarcomata and carcinoma metastases into the vertebral column represented the greater part of the exhibit devoted to malignant tumors of bone. Several lymphosarcoma specimens from the chest and neck and Hodgkin's disease specimens, comprised the display of fatal lymph gland new growths.

The remaining portion of the exhibit of gross specimens consisted of hypernephromata, carcinomata, mixed tumors of the kidney, bladder and prostate cancers, and rare tumors of various organs.

Several bottles of fluids from cases of carcinomatosis of the pleural and abdominal cavities, and specimens of gastric juice from cases of cancer of the stomach, were also on display. Microscopic smears of the sediments of these were demonstrated. Microscopic sections of most of the tumors on display grossly were on hand and some of the same demonstrated.

2. **X-ray Films**: An exhibit from the X-ray Department of the Buffalo City Hospital, under the direction of Dr. Clifford R. Orr, and correlated by Dr. Stewart A. Ver Nooy, was composed of eighty-eight films, displaying malignant tumors in various organs and bones of the body.

In order to correlate the X-ray Exhibit with the pathological specimens on display, nearly all of the films shown were from cases, the gross and microscopic specimens of which were demonstrated by the Pathological Department.

Among the malignancies of bone were films showing periosteal and osteo sarcoma, multiple myeloma, and metastatic processes.

There were about fifty films showing malignant lesions in the gastro-intenstinal tract, the films of the stomach and colon showing particularly a wide divergence in the types of deformity produced by the growths.

Films showing primary and secondary growths in the lung numbered about twenty-five. Three chest films showed lymph sarcoma, two cases being children and one an adult.

There were two very interesting series of chest films, the early roentgenograms in both cases showing the entire hemi-thorax obliterated by fluid. Later roentgenograms, after removal of the fluid and the injection of a small amount of air revealed, in one of the cases, a single large tumor originating from the mediastinum, and in the other cases, numerous circumscribed masses from one to eight centimeters in size of about the same density as bone and apparently originating from the pleura.

Another series of chest films from one patient demonstrated the growth of a lung tumor over a period of seven months.

There were several chest films, showing new growths in the lung of the infiltrating type and several others showing isolated metastatic nodules.

Among the kidney films, there were two pyelograms demonstrating hypernephroma, the chest films from the same individuals showing the metastatic processes in the lungs.

3. **Microscopic Pathology**: A large series of slides illustrating the microscopic pathology of cancer was arranged by Dr. Burton T. Simpson, Director of the State Institute for the Study of Malignant Disease, and Drs. Alvin G. Foord, William F. Jacobs, from the Pathological Department of the Buffalo City Hospital. These were shown on twenty microscopes loaned to the Medical Society of the State of New York by the Spencer Lens Company of Buffalo.

4. **Frozen Sections**: The rapid "Table Diagnosis" of fresh specimens by means of frozen sections was demonstrated by Dr. Alphonse A. Thibaudeau, Chief of the Pathological Department of the State Institute for the Study of Malignant Disease, and his assistants, Miss Irma Miller and Mr. Eugene Burke.

5. **Animal Experimentation**: Methods of investigating cancer on laboratory animals was demonstrated by Millard C. Marsh, Chief of the Department of Biology of the State Institute for the Study of Malignant Disease. A striking demonstration was that of injecting dyes into the circulation through a vein in the tail of a

mouse. The dye would spread through the circulation almost instantly, and would give the ears and feet the brilliant color of the dye used.

6. **Clinical Cases:** Five clinical cases and their X-ray films were shown by Dr. Bernard F. Schreiner, Chief of the Hospital Department of the State Institute for the Study of Malignant Disease.

7. **Radium:** Appliances for radium and radon therapy were shown by the Radium Chemical Company, New York City. This included a demonstration of screening radium element tubes and needles, the use of steel needles and a display of glass, gold and removable platinum implants with the instruments employed to introduce them in tissues.

8. **Endothermy:** Moving pictures showing methods of applying endothermy in the removal of tumors were exhibited by Dr. George A. Wyeth, of New York City.

9. **Popular Movies:** Two moving picture films for popular audiences were shown by Dr. John M. Swan, Rochester, State Chaiman, American Society for the Control of Cancer. One film shows a woman with a suspicious lump on her breast, Her husband heard of a doctor who was good in cancer cases. This doctor applies a salve and advises rubbing. The film ends with a funeral.

The second film shows another woman consulting her doctor who advises an immediate operation. The examination of the tumor is shown with a positive report, and the film ends with the patient well and happy five years afterward.

Statistical charts and specimens of popular literature were also shown.

Papers on Cancer: The afternoon was given over to a series of papers on Cancer. The program was as follows:

"Etiology of Cancer," Burton T. Simpson, M.D., Buffalo, Director State Institute for the Study of Malignant Disease, Buffalo.

Discussion opened by Herbert A. Smith, M.D., Buffalo.

"Cancer Research," William H. Woglom, M.D., New York City, Institute of Cancer Research of Columbia University.

Discussion opened by Burton T. Simpson, M.D., Buffalo.

"Diagnosis and Prevention of Cancer," Isaac Levin, M.D., New York City, Director New York City Cancer Institute, New York.

Discussion opened by William D. Johnson, M.D., Batavia.

"Treatment of Cancer," Bernard F. Schreiner, M.D., Buffalo, State Institute for the Study of Malignant Disease, Buffalo.

Discussion opened by Douglas Quick, M.D., New York City.

These papers are published in this Journal beginning on page 1006.

THE MEMORIAL HOSPITAL

By JAMES EWING, M.D., NEW YORK, N. Y.

THE Memorial Hospital, 2 West 106th Street, New York City, was established in 1886 by Mrs. Astor and Mrs. Cullom, and named the New York Cancer Hospital. The name was later changed to the General Memorial Hospital, and finally to Memorial Hospital for the Study of Cancer and Allied Diseases.

For many years very little work on cancer was done at this hospital, owing to the lack of productive fields of study, but in 1912 Dr. James Douglas gave the institution a considerable endowment and four grams of radium, on condition that cancer work should be resumed and an affiliation established with Cornell University Medical College. The offer was accepted and the systematic development of clinical cancer research was begun. Numerous small, and several substantial bequests have enabled the hospital to gradually increase its equipment and the clinical and laboratory staffs. The latest of these gifts are those of Mr. Edward S. Harkness, of $250,000 for the purchase of four grams of radium, and of Mr. John D. Rockefeller, Jr., of $60,000 a year for five years to enlarge the general activities of the hospital. New buildings added include the Douglas Laboratory, a modern X-ray building and equipment, and a nurses' home given by the Misses Douglas.

The main function of this hospital has been conceived to be the clinical study of cancer and the development of modern service to the cancer patient. The clinical organization takes the form of seven special departments, each conducted by specialists who devote most of their time to the diagnosis and treatment of special varieties of cancer. These departments function under the direction of the Medical Board. The hospital is well equipped for the treatment of cancer by surgery and the physical methods, but the bed capacity is inadequate to meet demands.

The education of medical students is conducted to the fullest extent permissible by medical curricula, but is regarded as still very inadequate.

An effective social and follow-up system have been established at considerable expense, defrayed by a special committee of women.

The laboratory departments include pathology, chemistry, physics and biology, and the total laboratory staff numbers 16. The equipment of these departments is fairly complete but the work is considerably restricted by lack of space. The studies from the departments are collected in volumes published annually.

The total bed capacity of the hospital is about 110. The out-patient service is very large, since most of the favorable stages of cancer are found in walking cases.

INSTITUTE OF CANCER RESEARCH, COLUMBIA UNIVERSITY

By FRANCIS CARTER WOOD, M.D., NEW YORK, N. Y.

THE Institute of Cancer Research was founded by George Crocker. By a will executed February 3, 1910, he left to the Trustees of Columbia College in the City of New York the money which should accrue from the sale of his New York house and his country place at Darlington, New Jersey. The funds obtained from the sale of these two properties amounted to $1,455,000. The terms of the will were that the income "shall be applied in such manner as said Trustees may from time to time determine, in the prosecution of researches as to the cause, prevention and cure of cancer, and should the progress of science at any time make the prosecution of further researches in regard to cancer unnecessary, then the income of said fund may be used as said Trustee may from time to time determine in the prosecution of other researches in medicine and surgery and in the sciences allied thereto, with a view of preventing and curing diseases and of alleviating human suffering."

The Trustees constituted a Board of Managers, directing them to spend the income of the Crocker Fund to carry on the work of cancer research. This Board was composed of the President of the University and Dean of the Medical School ex-officio, two trustees to be elected, two members of the Faculty likewise elected, and the executive officer, at present, Dr. Francis Carter Wood. A building was constructed by the University at 116th Street and Amsterdam Avenue to house the work of the Fund, which was opened in 1913. Since that time investigations on various phases of the cancer problem have been carried out. Among these investigations may be enumerated studies to determine the necessary dose of *x*-ray to kill animal tumors and healthy tissues, and to determine these as a function of the wave-lengths of *x*-ray; and it has been shown that for equal quantities of *x*-ray measured in the usual fashion by an open ionization chamber, all wave-lengths are equally effective. This has also been extended to radium, using the filters ordinarily used in practice. The killing effects of radium and *x*-ray were found to be proportional to the quantity and time of exposure within the limits of one to eight. More recently this work has been confirmed by investigations on the eggs of the fruit-fly *Drosophila*. Other phases of the work have been the investigation of the effect of making a biopsy on an animal tumor, which is shown not to facilitate metastasis, and also to study the effect of massage, which has been found to increase in many instances the number of metastatic particles.

From the beginning, plans were made to investigate the genetic aspect of cancer, and a long series of studies are now in progress on the heredity factors, which may or may not underlie the susceptibility of the white rat to *Cysticercus* sarcomata. In the course of this experiment it was found that the *Cysticercus* could produce seventeen varieties of tumors in the liver, the most frequent being the spindle or polyhedral-cell sarcomas; but chondromas, osteosarcomas, and liposarcomas have also been produced.

A whole series of studies on the relation between ionization measurements and the energy output of tubes have also been made.

In addition, an attack has been made from various angles on the question of the nature and source of immunity which permits an animal to produce a spontaneous cure of its own tumor, in the hope that some practical application might ultimately come to the human race.

Lastly, the Institute of Cancer Research has supplied animal tumors to a large number of laboratories, makes animal tissue diagnoses for those who desire, and has tested on request a variety of quack remedies; and it stands ready at any time to furnish technical information on the subject of cancer to those who need it.

ETIOLOGY OF CANCER*

By **BURTON T. SIMPSON, M.D.**
Director, State Institute for the Study of Malignant Disease, Buffalo, N. Y.

IN every symposium on any subject it is customary to subdivide the subject into its component parts. Therefore, this symposium on cancer would not be classical if we did not start it with a consideration of the etiology. Unfortunately, I am not able to give you a definite specific etiology for this disease. The reason, according to my belief after an intensive study of the disease for 18 years, is that there is no definite specific etiological factor.

The three outstanding theories of the causation of cancer are:

1. Infectious.
2. Cohnheim's.
3. Virchow's.

Cohnheim's theory proposed that cancer originates in groups of misplaced embryonic cells.

Virchow believed that cancer was the result of a chronic insult or injury to normally existing cells.

Naturally, it would simplify the question if we could isolate some microorganism from cancer which would conform to Koch's postulates. In the past 25 years claims have been made by different investigators of having discovered a specific microorganism as the cause of cancer. These claims have not been substantiated by other research workers, and in most cases, the discoverer has been obliged to acknowledge that he was mistaken.

An immense amount of work has been done to prove or disprove that cancer is an infectious disease. Careful analysis of this work forces me to the conclusion that there is no evidence that cancer is caused by a specific organism.

The incidence of the disease, the absence of the usual manifestations of infection, as temperature, blood changes, immune reactions, etc., would seem to argue against cancer being of an infectious nature, besides the inability of anyone to isolate an organism which would stand the scrutiny of subsequent investigation.

While Cohnheim's theory may apply to some rare cases of tumor formation, the majority of cancer as we see it clinically, originates from normally placed cells. Therefore, for practical purposes, Cohnheim's theory can be eliminated from this discussion.

By exclusion we are forced to consider the merits of Virchow's theory and to analyze it to see if we can make it coincide with clinical experience and the findings of cancer research. Undoubtedly, cancer is the result of some effect upon cells which causes them to take on excessive and unlimited growth energy. Primarily, growth was the chief function of cells. But as these cells reach their normal stage, growth capacity decreases and in some cases becomes nil. Secretion or some special activity becomes prominent and according to the degree of special functional activity that the cells assume, reproduction is in inverse proportion. However, all cells retain growth potentiality and if sufficient stimulus is brought to bear upon them they will react by reverting to the growth phase.

The exact mechanism of this is not known. It is probably a complicated biological phenomenon.

The supporter of the parasitic theory believes that an organism invades the cell and in its division, produces some substance which stimulates the cell to divide.

Cohnheim believed that all cancer cells were originally embryonic cells and, therefore easily stimulated to proliferate.

Experimental Cancer

Observation of certain types of clinical cancer lead investigators to try to produce this disease artificially on the lower animals. The fact that a number of the early workers with the X-ray developed cancer upon areas which had been continuously exposed to X-ray radiations suggested this agent as a possible one for the experimental production of cancer. Clunet succeeded in producing sarcoma on the backs of rats by interrupted exposures continued for a long time. However, not all the rats so exposed developed cancer.

Because anilene workers frequently have cancer of the bladder, coal tar, from which aniline products are derived, seemed a logical substance to try. Virchow's theory presupposed a chronic or continued injury to a group of cells. This injury apparently destroys some of the cells and new ones are reproduced to fill in the deficit. This process repeats itself until finally a crop of cells are generated which have tremendous growth capacity and invade the neighboring tissues in all directions. Thus by continued insult, normal cells are aggravated into becoming what we call cancer cells. The injurious agent may be one of several kinds, viz., chemical, toxic, actinic, mechanical, thermic, etc.

For the artificial production of cancer, Yamagiwa, a Japanese investigator, succeeded in producing cancer on the rabbit's ear by painting this organ with coal tar every few days for a period of many months. Since Yamagiwa's report appeared, his work has been reproduced by other investigators in nearly all parts of the world, both on rabbits and mice.

Borrell observed sarcoma of the liver of rats, associated with cysts of this organ, caused by the embryonic stage of the tape worm of a cat. Bullock and Curtis fed rats with eggs of the cat's tape worm and succeeded in producing artificially sarcoma of the liver in a large proportion of the rats so fed.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 12, 1927.

In Egypt, the natives become infested with a hematobium which deposits its eggs in the mucosa of the bladder. Cancer of this organ is relatively frequent in these people. Microscopic examination of sections of these tumors shows the presence of eggs adjacent to the proliferating cancer cells.

Fibiger of Copenhagen has succeeded in producing cancer in the stomach of rats by feeding to these animals cockroaches which were infested with the embryos of a nematode. The embryos when liberated in the rat's stomach burrow into the mucosa and set up a reactive inflammation. In a certain number of these rats the inflammatory reaction is followed by cancer.

Blumenthal has produced tumors by injecting cultures of non-pathogenic bacteria into rats. This procedure must be repeated many times and continued for a long period. However, only a small percentage of the animals treated react by cancer formation.

Narat has produced cancer in mice by long continued painting of their backs with HCl and KOH.

Kazama, using guinea pigs and rabbits, was successful in producing cancer in the gall bladder, stomach and urinary bladder of these animals by a combination of mechanical and chemical irritation. He also succeeded in producing cancer of the gall bladder in guinea pigs, by pure irritation, using human gall stones.

Thus we see that cancer can be produced experimentally by subjecting normal cells to chronic injury. That this injury may be of a variety of types, chemical, actinic, toxic, mechanical, etc. One fact stands out in the experimental production of cancer, as it also does in clinical cancer. That is, that all the animals subjected to any of the various irritants do not become cancerous. We must therefore, conclude that in the animals whose cells do not react to chronic injury by unlimited proliferation, there must be some factor which prevents this reaction.

Considerable work has been done to try to show immune or resistant factors, but this work has been consistently negative. It is most probable that those individuals who become cancerous are born with cells which are unstable, that is, they may be considered as cells that retain the potential growth propensity to a higher degree than do normal cells.

Apparently these susceptible cells are not widespread throughout the body but are usually limited to one viscus as is indicated by the infrequency of multiple cancer. These facts of inherited tendency or susceptibility are sustained by the results obtained in experimental research. It is possible, by inbreeding the offspring of cancerous parents, to obtain a strain of animals in which there is a high incidence of cancer. This is especially true of cancer in the breast of white mice. We have one strain in which the females will show 50% of breast cancer and another strain which shows 94%. The factor of susceptibility is markedly brought out by selective inbreeding.

To summarize these facts, we may say that for practical purposes the majority of clinical cancer is caused by chronic insult or injury to a group of cells, which by virtue of their being unstable, react to injury by unlimited proliferation.

Although in some cases the injury is crude and easily recognized, it should not be concluded, that in others where the injury is not so apparent, it does not exist. For there may be insults to cells which are so subtle that we cannot recognize them with our present methods.

It might be advantageous to consider some concrete cases, to learn if these tally with the above outlined theory of the cause of cancer.

(I)

First we will take the elevated pigmented naevus. Here we have to do with embryonic cells which notoriously react to injury by excessive proliferation. There are two types of pigmented naevi; (1) the flat (2) the elevated. These are both composed of the same type of cells. However, the flat naevus rarely, if ever, undergoes malignant change. The reason is that this type is not commonly subjected to chronic injury. On the other hand, elevated pigmented naevi are often the originating focus of melanosarcoma, and the history usually shows that they were subjected to chronic injury.

(II)

Cancer of the Lip.

This lesion commonly occurs in pipe or cigar smokers and its site usually corresponds to the area where the pipe or cigar is held. Very commonly the malignant change is preceded for a long period by a patch of leucoplacia. The mechanism consists probably of a proliferative reaction on the part of the cells to protect the delicate underlying tissues from the products of the tobacco. Some cases of cancer of the tongue and larynx have a similar etiologic history.

(III)

Cancer of the Tongue.

Malignancy in this organ usually occurs along the margin. Careful examination will nearly always reveal ragged or sharp edged teeth corresponding to the location of the cancer. The sequence of events are as follows. First the ragged edged teeth cause a destruction of the adjacent cells with the production of an ulcer. A new crop of cells is produced. These in turn are likewise destroyed and the process repeats itself until after a while a crop of cells is produced which has tremendous growth capacity and they invade the tissues in all directions; in other words, they have become cancer cells. The same mechanism can be applied to cancer springing from the edges of chronic tubercular, syphilitic or varicose ulcers, or from chronic dermatitis.

(IV)

Cancer of the Breast.

Here the type of insult is not so apparent. Formerly we have laid stress upon the effect of mechanical injury as caused by corset steels, trauma, etc., or have concerned ourselves with the association of chronic mastitis. While this latter condition is very frequently associated with cancer of the breast, it is necessary of course, to learn the cause of chronic mastitis. Some interesting laboratory experiments might be mentioned here. For instance, if we remove the ovaries from the mice of our high cancer strain before puberty, none of them will develop cancer of the breast. This procedure prevents secreting cells to be formed in this organ.

Dr. Bagg of New York has made some interesting observations in regard to breast cancer in mice. He has a strain of mice in which only 5% of the females will develop spontaneous cancer of the breast. If he breeds the mice and immediately removes the young after birth, thus preventing suckling, and repeats this procedure several times, the mice so treated will develop cancer at an incidence as high as 87%. The decomposed stagnant milk remaining in the breast for a long period evidently stimulates the susceptible cells to excessive proliferation.

In this connection it might be stated that no one has ever reported cancer as occurring in the mammary gland in the cow.

Another clinical observation might also be offered in support of this laboratory finding. Cancer of the breast ranks second in malignant disease of English and American women, while it is next to last in Japanese women. It is well known that the Japanese women consistently nurse the offspring.

(V)

Cancer of the Uterus.

Ninety-eight per cent of cervical cancer occurs in women who have borne children. The normal ratio of single to married women in the United States is about one to eight. Therefore, one can see that child birth has some intimate relation to cancer of the cervix. The fundamental factor must be associated with cervical tears. One can easily visualize the loss of continuity of the surface epithelium and its incorporation in the scar tissue. The mechanical action of contracting scar tissue may be an important factor in stimulating the imprisoned cells to proliferate to free themselves.

Undoubtedly, chronic cervicitis and the associated production of low grade toxins is a factor in some cases in stimulating susceptible cells to excessive proliferation.

Adeno-carcinoma of the corpus uteri is intimately associated with mechanical disturbances produced by the presence of fibroid tumors.

The time limit on this paper will not permit me to go into detail concerning all the types of cancer that might be made applicable to this conception of etiology. However, I might mention the relation between gall stones and cancer of the gall bladder, cirrhosis of the liver and hepatic cancer, gastric ulcer and cancer of the stomach. Also that the common sites of intestinal cancer correspond to the constrictions and flexures which are subjected to mechanical injury. The chimney sweep's cancer of the scrotum, aniline worker's cancer of the bladder, and cancer of the mouth due to chewing of the betal nut are also examples which are familiar to you all.

This conception of the etiology of cancer is to my mind a very practical and hopeful one, for it premises, in most cases, a period more or less prolonged, in which we may recognize a pathological condition before it has actually become cancerous, and as the removal of the cause is one of the first principles in medical practice, a recognition and acceptance of the relation of chronic injury to the production of cancer prepares us to practice our art in the highest degree, namely, the prevention of disease.

MODERN CANCER RESEARCH*

By **WM. H. WOGLOM, M.D., NEW YORK, N. Y.**
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AFTER it had been shown that tumors can be transplanted from animal to animal, the observational study of cancer could be supplemented by the experimental method. Almost the first question to be attacked was the vitality of the cancer cell under various conditions such as heat, cold, exposure to different chemicals, and so on, in the hope that some characteristic might be discovered which would give a clue to treatment. All these experiments failed, however, as the microscope had failed, to show any constant appreciable difference between the cancer cell and its normal prototype.

But because the question is so fundamental, experiments of this type have been continued, growing more and more rigorous as time goes on. The most recent in this field are those of Warburg and his associates, who have been investigating the respiration of the cancer cell.

Warburg had previously determined that after fertilization the sea-urchin egg requires six times as much oxygen as sufficed in its resting stage, and it occurred to him that a similar increase in oxygen need might be expected in the case of the cancer cell, to furnish the energy necessary for its vigorous proliferation. But to his great surprise, the amount consumed turned out to be actually smaller than that used by the normal liver and kidney cells with which he had compared it. This result was so startling as to justify the provisional assumption that the Ringer's solution in which the cells had been immersed during their examination did not contain suitable material for combustion. When glucose was added, however, respiration came to a standstill. This, Warburg found, was because lactic acid was produced by a splitting of the glucose, more than a hundred times as much appearing as was set free by most of the normal tissues investigated.

Now lactic acid is produced by normal cells, too, but their respiration suffices to remove it, whereas that of the cancer cell does not. Thus in muscle, for example, the following cycle takes place:—1. Splitting of glucose to lactic acid. 2. Reconversion of lactic acid to glucose in the presence of oxygen. A certain mould investigated by Pasteur acts in the same way, and stops splitting glucose as soon as oxygen becomes available.

The cancer cell behave like neither of these, for oxygen does not stop the splitting reaction; glycolysis and oxidation go on together, as they do in a yeast cell. In this respect the cancer cell may be said to resemble a suffocating normal cell, and Warburg has, in fact, suggested that cancer may originate in a group of cells that have been deprived of sufficient oxygen and have gradually learned to do without it.

Although Warburg's experiments have been confirmed in vivo, by the Coris, there is still considerable doubt of their ultimate significance. At any rate, Murphy and Hawkins were unable to duplicate Warburg's results with every tumor investigated. It may be, too, that this double respiration will prove to be a property of young, growing cells, rather than a characteristic of the cancer cell. Nevertheless, the value and importance of Warburg's work should not be minimized, for any information regarding normal growth may prove to be of use in elucidating the problem of malignant growth.

Another way of approaching the problem of neoplasia is to search for the immediate cause of the disease. Some of the contributing causes, such as age and chronic irritation, are already known, but neither of these is the immediate cause, for not all old people develop cancer, nor all those who have a chronic inflammatory lesion. It has been suggested by innumerable investigators that the immediate cause may be a microorganism, yet after years of search none has been found that will satisfy all the requirements, and the majority of pathologists have been forced to the belief that cancer is probably not a parasitic disease.

But a short time ago a series of new experiments was published by Gye, of London, in which evidence was brought forward to show that certain tumors may be caused by some sort of organism. It is still too early to say just what these experiments really mean; so far, Gye's interpretation of them has not met with universal acceptance, nor have others been able to duplicate them in all their complex details.

His work was carried out with a sarcoma of the chicken, discovered some ten years ago by Dr. Rous, of the Rockefeller Institute, a tumor which differs from mammalian new growths in that it can be transferred from fowl to fowl by means of a cell-free filtrate. The ordinary transplantable neoplasm of the mouse and rat, on the contrary, can be propagated only by the introduction of living and intact cells. Thus there is an agent of some sort in the filtered juice of this sarcoma which is able to cause tumors to develop in the normal tissues of the chicken, and Gye began his work by trying to find out what this might be. He found that something seemed to diffuse into broth cultures, for injection of the broth, even that from the top of the tube, was followed by the development of tumors, provided that it was introduced within the first week of cultivation. After this time, the broth lost its activity.

Although organisms will not live indefinitely in a culture tube, they can usually be depended upon to survive much more than one week, and Gye therefore suspected that the inactivity of old cultures was not due to the death of a living organism, but to the disappearance of a much more unstable substance—perhaps a chemical agent of some sort. He tested this hypothesis by killing the virus in a sand filtrate with chloroform, and adding the fluid to an old and inactive culture. Neither of the two fluids alone would produce a tumor, but when mixed they proved active. Thus he concluded that two factors are necessary for the production of a tumor —a virus, which can be killed by chloroform, and a specific chemical factor.

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The details of his experiments need not be gone into at the present time. It will be enough to say that nobody has yet succeeded in reproducing all of his results, and that the importance of a living virus in the etiology of all tumors still remains to be proved. The most damaging fact so far offered in disproof of his hypothesis is the demonstration that sand filtrates can be reactivated by "cultures" not only of tumors but of various normal tissues as well.

It has been assumed for years that a method of inciting malignant growth at will would go far toward elucidating its ultimate cause, and it is but natural that attempts to produce tumors should have been prosecuted diligently. All were abortive, however, until Fibiger, of Copenhagen, reported that he had been able to produce cancer of the stomach in rats by feeding them on cockroaches infested with the larvae of a certain round worm. The worm settled down in the rat's stomach, and after a period of months a cancer appeared, presumably as a result of the chronic inflammation about the parasite. About the same time, Dr. Bullock, of the Crocker Institute, was experimenting with a tapeworm of the cat, which passes its larval form in the rat's liver. Here, again, the organism sets up a chronic inflammation which is eventually followed by sarcoma, provided the rat lives for the necessary eight months or so after infestation.

Although both of these methods marked an extraordinary advance in our attack upon the cancer problem, they were not ideal, for the tumor was in an internal organ, so that it was impossible to determine just when it originated. A more convenient method, however, soon followed.

It had been known for a long time that laborers who handle soot, tar, or similar substances, are prone to develop cancer on the exposed portions of the body, and this fact was not lost sight of by those who were attempting to produce cancer experimentally. Dogs and rats were painted with tar, but in vain, and in the rabbit the results were no more encouraging. Had the earlier investigators known that not all species are susceptible to tar, and that a long period of painting is necessary before carcinoma appears, even in a susceptible species, the problem could have been solved forty years ago. But as ill luck would have it, those who had inadvertently hit upon the right species did not continue the irritation long enough; and those who kept on applying tar for a sufficient period had chosen the wrong species. It was the good fortune of Yamagiwa and Itchikawa not only to hit on a susceptible animal—the rabbit—but to have the necessary patience to continue their tar applications month after month, without any guarantee that their work would be rewarded. They were finally able to show that if a rabbit be painted with tar three times a week for about a year it will develop a cancer of the skin in the area painted, and Tsutsui soon afterward proved that the white mouse is even more susceptible.

The possibilities opened up by this discovery are obvious. Now, for the first time, it is possible to investigate the importance of age, to measure the intensity of the irritation that is required to produce cancer, to test the importance or unimportance of the endocrine glands, and so on. Furthermore, if it should prove possible to discover what constituent among the several hundred contained in tar is the active one, it may be that a number of industrial cancers can be eliminated. All these questions are under investigation in one laboratory or another, but the work is not far enough advanced to lend itself to a review.

TREATMENT OF MALIGNANT DISEASE*

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In using the above title, I am not unmindful of how great an undertaking it is to try to set forth and elaborate the treatment of all types of cancer, but I will endeavor to correlate the facts which have been gathered from wide experience in the treatment of this disease, as well as the results of other workers. I believe it essential to discuss the treatment of cancer under three separate headings, namely the prophylactic treatment, treatment of localized cancer, and the treatment of disseminated or wide-spread cancer.

Under the heading of prophylactic treatment, we must take into consideration the work which has proved by laboratory experiments that cancer can be produced by chemical, thermal and other irritations. I might here mention kangri stove cancer as caused by a thermal irritant, the irritation cancer caused by tobacco, betel nut, etcetera, and experimental cancer produced by prolonged irritation by the use of coal tar. With this in mind we must give consideration to the correction of all physical defects, so-called benign new growths or lesions due to trauma or irritation. All recognized pre-cancerous lesions, such as warts, naevi, or pigmented moles, chronic ulcers such as varicose ulcers, old lacerations of the female genitals and cervical tears with the accompanying cervicitis, phimosis in the male which does not permit the glands to be kept perfectly clean, hemorrhoids, bad hygienic condition in the mouth such as pyorrhea, decayed teeth, and abscessed roots, should be corrected by the proper treatment, surgically, or in exceptional cases such as warts and naevi, by desiccation, coagulation or irradiation. Tubercular lesions on the skin which result in much scarring and chronic changes in the epidermis may be dealt with in a prophylactic as well as a curative way by improved methods of treatment with Kromeyer lamps, and X-ray. Syphilis and its accompanying lesions, especially those on the mucous membranes, particularly the mouth with the production of leukoplacia, should be dealt with in a prophylactic way. There should be a thorough appreciation of the possibilities of malignant degeneration as a result of these lesions. Proper energetic specific treatment early in the course of syphilis will do much to avoid these scars. After the development of leukoplacias, especially about the oral cavity (thorough elimination of concomitant syphilis being borne in mind) the removal of all forms of irritation from tobacco, however used, should be insisted upon as well as the destruction of thickened leukoplacic areas by means of radium with very light filtration, or destruction by desiccation or even coagulation. This must necessarily be thorough, so as to eliminate the possibility of stirring up a leukoplacia which has already begun to undergo malignant change. It might be added that all forms of chronic disease which are amenable to surgery, such as gall stones, gastric ulcers, varicose ulcers and hemorrhoids should be dealt with surgically in order to eliminate as far as possible, those cases which possibly may undergo malignant change.

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The prophylactic treatment of cancer would not be complete were we not to dwell a little upon the diseases of the breast, which by many are regarded as a menace or a source of danger due to the possibility of development of malignancy. I have particularly in mind the work of Bagg, in which he definitely proved, experimentally, at least, in mice, that the removal of the litters immediately after birth and thus allowing stagnation of the milk in the breast, raised very markedly the incidence of cancer in this organ. These experiments would seem to indicate that the proper hygiene of the breasts during lactation, care of the nipple, the prevention of infections and mastitis with abscesses, are to be encouraged. The removal of all definite tumor formation or nodules in the breast such as cysts, whether papillary or otherwise, fibroadenomata, by proper surgical intervention, the treatment of eczematous condition about the nipple which leads to Paget's disease, by means of radiation, preferably unfiltered X-ray or radium, will do much toward the elimination of many cases of cancer of the breast.

In the treatment of local cancer we must necessarily remember that a variety of treatments will be efficient in eradicating disease, some of which have advantages over others from the standpoint of cosmetic results and no loss of time in the carrying out of treatment. At times two methods are of equal value in the hands of various physicians but one is obliged to choose one or the other in view of the fact that certain localities have a man extremely efficient in one type of treatment. In other localities there may be one familiar with the best technique of another agent. I have in mind radical surgery or endothermy as compared with inefficient X-ray or radium treatment, or the reverse, inefficient surgery with good radiation or endothermy. We will endeavor to discuss the treatment of localized cancer from the standpoint of location, type of growth and ability of the physician in a given locality.

Skin cancer, of which there are two varieties, basal cell epithelioma and the so-called squamous or pearl forming epithelioma, can be dealt with by five different varieties of treatment. I will discuss these methods in the order of their relative values, not being unmindful that there may be exception taken to this by many skilled surgeons. The small basal cell epithelioma is best treated by irradiation, with lightly filtered radium or unfiltered X-rays. I give preference from the standpoint of the ease of application, no loss of time, and the cosmetic result. It is true that desiccation or endothermy is very efficacious if performed thoroughly, being sure to go wide of the diseased area. In some types of basal cell epitheliomy this method may be advantageous, especially where cartilege and fascia are involved. In basal cell epithelioma of the eyelids with involvment of the conjunctiva and even the contents or the orbit, the disease should be thoroughly eradicated by coagulation or endothermy followed with radiation by means of filtered radium or X-rays. Excision of basal cell epithelioma is of undoubted value if one can sacrifice sufficient healthy tissues surrounding the lesion, but as the larger percentage of basal cell epitheliomata occur on the face, where sacrifice of considerable tissue is not warranted or would cause poor cosmetic results, as on the eyelid or ala of the nose, one must give the preference to the two preceding measures. Various kinds of arsenical pastes or caustic pastes are of benefit at times in the treatment of this type of lesion but they are more painful and less desirable so far as the cosmetic result is concerned. The use of carbon dioxide snow has the same draw-back as pastes in the treatment of this type of lesion.

In squamous cell epithelioma of the skin, the same relative value of methods of treatment for the primary lesion exists, but one must keep in mind that the squamous cell or pearl forming variety of epithelioma requires two to three times as much radiation as the ordinary basal cell type. Here again the preference as to radiation, endothermy or surgery is given to the method with which one has had most experience, the preference being for radiation, in some cases diathermy, and in far advanced epithelioma occurring in extremities such as the hands, fingers or legs, surgery may be preferable. One must always keep in mind that no matter which method is pursued, this variety of tumor is prone to metastasize and the regional lymphnodes should be thoroughly radiated even though no metastases are present.

A common site for this variety of epithelioma is on the lower lip at the mucocutaneous junction, where we encounter two varieties, the proliferated type and the infiltrating type. The permanent results following irradiation and surgery, so far as the local lesion is concerned, are equal in our experience, with the exception that better cosmetic results are obtained from radiation treatment. Cancer of the lip in the early stages, can be treated satisfactorily by excision or by means of radiation, radiation giving the better cosmetic result locally. When there are definite metastases in the submaxillary or submental regions, surgery alone does not suffice. It is extremely necessary that the metastases be treated by radiation, implantation alone or combined with external x-radiation. The results from radiation alone compare with the best surgical statistics if the disease is local. If lymphnodes are involved one can expect only about 34 per cent clinical healing by means of radiation and implantation. Cases treated by surgery alone I believe are less satisfactory.

Cancer of the oral cavity and its contents, namely the tongue, floor of mouth, gums and inner cheeks, is without doubt treated best by irradiation, the implantation of radium emanation filtered through gold, keeping in mind always that x-radiation is to be applied over the lymph-bearing areas. Epithelioma of the tonsil and pillars is without doubt handled best by implantation with radium. The round cell sarcoma occuring in the tonsil is preferably treated by means of high voltage X-rays or large radium packs applied externally, as this type of tumor is very susceptible to radiation.

The most common variety of malignant disease of the antrum is carcinoma, which if early is best treated by radium implantation, or radium tubes inserted into the antrum through the roof of the mouth. This is productive of healing in about 25 per cent of the cases. When further advanced, involving the cheek and with metastases in the neck, the results have only been palliative.

Spindle cell sarcoma and myxo-sarcoma, which occasionally occur in the antrum, have yielded practically no curative results by any known method of treatment.

Giant cell tumor involving the antrum is best treated by surgery combined with radium. This has yielded very good results in a few cases treated.

Cancer of the oesophagus, in early cases, has been treated surgically by resection with, I believe, two cases that have lived. Radiation up to the present time has offered nothing but palliation, but in this locality we are confronted with two problems, namely, the cancerous disease itself, and as a result of this the mechanics which lead to starvation, where without doubt gastrostomy should be performed early.

Carcinoma of the stomach is best treated by surgery, performing resection where the lesion is favorably located, if at the lower end of the stomach, pyloric region, or by the combined method of gastroenterostomy where there is obstruction at the pyloris, and the implantation of emanation into the primary growth. I have successfully done this in two cases, the patients living 2½ and 2 years respectively; it is of course unnecessary to remind you that this procedure is only applicable when there are no metastases in the liver at the time of operation.

Cancer of the cecum and colon is best treated when operable, by resection because of the stenosis and obstruction which is an accompanying part of the malignant disease. Where these lesions are inoperable, on account of invasion of the surrounding tissue, palliation can be offered by means of high voltage X-ray, or radium packs. For lesions located in the sigmoid, the two stage operation of Mikulicz is productive of very good results.

Cancer of the rectum is exceedingly discouraging from the standpoint of surgery and all other forms of treatment. One cannot deny that in selected cases in which the tumor is movable, and occurring in the lower two to three inches of the rectum, it can be removed surgically through the anal canal as described by E. R. McGuire, and others. By far the larger percentage of cancer of the rectum is inoperable on account of fixation and involvement of contiguous tissues, which renders surgery inadvisable except in a palliative way, in the performing of a colostomy. These lesions when local and low down are best treated by the implantation of gold seeds of emanation, and when higher up tandem tubes, of radium emanation in the lumen of the stricture, supplemented with high voltage X-rays from the outside, the question of colostomy being left until the mechanical obstruction is almost complete. This is contrary to the opinion of many, who think that on account of the continued irritation due to the stools passing over this ulcerating area and thus causing irritation, colostomy should be done to avoid this irritation. It is my conclusion reached after the observation of many patients who have had colostomy performed with this idea in mind, that after this operation they had two sources of annoyance, the discharge from the rectum as well as the care of the colostomy opening itself. One can expect about eight to nine per cent clinical healing from this form of treatment.

Cancer of the female genitals: The most frequent type of cancer involving the female genitals is epithelioma or squamous cell carcinoma involving the cervix. There is no doubt that the treatment of choice in this lesion, which is concurred in by all gynecologists of note, is radiation. The results of radiation treatment, as to healing, are in direct proportion to the length of time the disease has existed. In order to grasp what has been accomplished in this type of cancer, it is necessary to divide it into groups according to the anatomical involvement. (Early cases confined to the cervix are designated as Group I, where there is obliteration of one or the other fornix with invasion of the mucous membrane of the vagina Group II; beginning invasion of the broad ligament areas Group III, and complete fixation of the uterus and possibly involvment of the bladder and rectal walls Group IV.) By combined treatment with radium inserted into the cervical canal and supplemented with high voltage X-rays externally, one can expect in the early cases results which far surpass surgical results. This is indicated by the fact that we have had twenty-two out of twenty-three cases which have been healed from periods of 2 to 7 years, one case having recurred and died 2½ years after treatment. In the Group II cases about 50 per cent have remained well for periods up to 5 years; in Group III about 24 per cent. In Group IV palliations have lasted as long as 3 to 5 years.

Another type of lesion that occurs in the cervical canal, is adenocarcinoma. This type seems to be much more malignant and the results of treatment are not as good as with epithelioma. While this lesion is less frequent we have observed sixteen cases. In the early ones, in which the lesion was confined to the cervical canal we have obtained about 57 per cent clinical healing. In the far advanced cases, treatment has been the means of prolonging life.

Carcinoma of the fundus, if early and confined to the uterus, is considered a surgical disease and results are extremely gratifying, various authors claiming 75 per cent of healing over periods of 5 years. Many times, however, there are contraindications to operation, such as old age, myocardial disease, diabetes, and refusal on the part of the patient to submit to operation. We have collected records of fifty-six cases treated by radiation alone, with the gratifying result that 72 per cent remained well and free from the disease 2 to 5 years. The far advanced and inoperable carcinoma of the fundus of the uterus has been treated by radiation with only palliative results from 1 to 3 years. Recurrences occurring locally in the vault of the vagina and broad ligament areas treated by combined method of radium and X-ray have resulted in healing 32 per cent from 2 to 5 years.

Cancer of the ovary is best treated when local, by the combined method with surgery, the removal of all the pelvic organs, or when this is not possible, the removal of as much of the diseased tissue as possible, this to be followed by external radiation. While the clinical healings or cures in this type of malignant disease are few, the average length of life has been increased up to periods of 5 to 6 years.

Cancer of the vagina is a hopeless disease from the standpoint of surgery, because of the difficulties of mechanical removal of such growths, as well as the fact that the majority of cases are advanced locally by continuity of tissue so that the bladder and rectal walls are involved. Our only means of attack at the present time is by thorough radiation. This is naturally limited because of the mechanical difficulties and the liability of the production of fistula, either bladder or rectal. In the early cases, we have succeeded by radiation in effecting a healing in half of them from 2 to 4 years and in the advanced cases two out of twenty-one have been well 3 to 5 years.

Malignancy of the female external genitals, clitoris and vulva, is exceedingly painful and difficult in effecting a healing. After an experience with thirty-one cases of cancer of the clitoris and vulva we have come to the conclusion that the best way of handling these cases is by the combined method of radium implantation locally and at times into the metastatic growths in the groins, with electro coagulation and destruction of the whole vulva and clitoris. This has been the means of rendering these patients much more comfortable and effecting clinical healing for period of 1 to 3 years. Cancer of the external genitals is prone to recur locally and the metastases to become intractable.

Male genitals: I am of the belief, after careful study of forty-eight cases of cancer of the penis, that in selected cases where the growth is papillary and local, it can be dealt with effectually and healed by pure radiation, using unfiltered X-rays and radium implantations. Because of the mechanical difficulties arising, it is often wiser to resort to radical operation with dissection of both groins, and the transplantation of the urethra into the perineum, this to be followed by external radiation. Authorities differ as to the necessity of castration at the time of radical operation. Some authorities do not believe it necessary or desirable. However we have had one case in which there was found a metastatic deposit in the testacle. True it is that surgery alone rarely, if ever, cures cancer of the penis in cases where there are definite metastases in the lymph nodes of the groins. By implantation of radium emanation into the metastatic nodules we have seen the disease apparently healed, 3½ years after treatment.

Early cancer of the breast, as a rule, is best treated by combination or radical surgery to be followed by high voltage X-rays, with some exceptions where implantation of radium, and radium packs have proven of absolute benefit in a curative way. Theoretically, it would be of material benefit to subject all cases to pre-operative radiation by means of high voltage X-rays, were it not for the fact that frequently there is experienced great difficulty in the healing of wounds. We have been carrying on work to establish whether it is possible to radiate, in divided doses, beginning before operation and carrying it through the time of wound healing and still expect an improvement in the results.

Our statistics show definitely that results in operable cases are best obtained by radical operation followed with radiation, although in some instances, radiation alone has proven of value in a curative way. The palliations obtained by radiation in the hopeless, inoperable cases of breast cancer have been instrumental in making the remaining days of the patient more comfortable.

Sarcoma, of which there are many varieties histologically as well as clinically, may be, for the sake of convenience, divided into several large groups. Lymphosarcoma: should never be dealt with surgically except for the establishment of an absolute diagnosis as to the type of tumor with which we are dealing. This tumor is extremely susceptible to radiation, frequently melting away in a remarkably short period of time. One is obliged to remember that lymphosarcoma is a disease of the lymph tissue throughout the body and therefore crops out in various places. If local the disease is curable, patients having lived without any evidence of recurrence up to 8 years.

Spindle cell sarcoma of the fascia plane is best treated by removal when possible, followed by radiation.

Giant cell tumor occurring in the bone and in tendon sheaths may be dealt with surgically by enucleation or curetting out and at times resecting portions of bone or joints and in some cases it has been successfully treated by radiation alone.

Myxosarcoma is primarily a surgical disease, which necessitates extremely radical procedures, and where favorably located on limbs or extremities, amputation is almost the only means of effecting a cure. This tumor recurs locally and leads to death by impairment of function. It is very resistant to any form of radiation, although in two cases we were able to render palliation by radiation up to 3 years.

Osteogenetic sarcoma is an extremely fatal disease, because of its early metastases which occur, especially into the lungs. It should be dealt with by means of radiation as a palliative measure and at times surgically, for the alleviation of pain and ulcerating lesions. The prognosis is invariably bad. I know of no case that has remained well 3 years from any form of treatment.

There is at present no means of curing disseminated cancer. Radiation, whether by radium or X-ray, is limited in so far as one can thoroughly treat a given area in which there is cancerous tissue. Surgery is useless except in a palliative way as for the relief of pain or hygienic reasons. From time to time numerous investigators have suggested medicaments of various types in the treatment of wide-spread cancer. Among these may be mentioned that of Blair Bell who used colloidal lead and reported good results in a curative way on cancer patients. After Bell's original article in 1923 we treated a few cases with colloidal lead but abandoned it as there were no clinical results noted. Again in 1926 we undertook an investigation in nineteen cases in which the lead treatment was carried out as near as possible according to Bell's methods. All these cases have since died of the disease with the exception of one, who is now moribund. The severe anemias produced by the use of colloidal lead and lack of improvement clinically in the local lesions, was cause enough for the rejection of this method of treatment as being ineffectual. Sodium oleate and arsenical medications seem to be of benefit in a general way. Numerous physicians have proposed serum and specific antitoxins as well as colloidal preparations like gold, all of which have proven of little or no value.

PREVENTION AND DIAGNOSIS OF CANCER

By ISAAC LEVIN, M.D., NEW YORK, N. Y.

THE methods of prevention of a disease must of necessity vary with the variations of its etiology. In infectious diseases, for instance, prevention means isolation of the patient and the prevention of the spread of the microorganism into the community. In cardiovascular diseases prevention may mean the regulation of the mode life. In inheritable diseases it may mean control of mating, and so on.

It would seem *a priori* that in cancer the etiology of which is not clear today, prevention is entirely impossible. In reality, however, the pathological, experimental and clinical studies of the last thirty years have elucidated many phases in the etiology and particularly in the pathogenesis of cancer. As a result, as will be shown later, the term *prevention of cancer* has a very important practical meaning and will produce ever better practical results as cancer research both experimental and clinical, progresses.

Pathogenesis of Cancer.—The general impression of the public and the assumption by some members of the medical profession that cancer from its very inception is either an infectious, systemic or a nutritional disease is contrary to all evidence in scientific medicine.

Clinically the beginning of cancer manifests itself always by the formation of a local tumor without any accompanying disturbance in the organism. Indeed, the lack of general symptoms is one of the main reasons for the late recognition of the disease. Throughout the whole course of cancer its malignancy is most generally due to local destruction of some vital organ by a primary or a secondary metastatic tumor. Unlike any known systemic or parasitic disease the main characteristic of which is regression and inhibition of cellular growth and function, cancer is always characterized by new growth, progressive multiplication of cells and increased cellular metabolism. Massive malignant tumors may absorb most of the nutrition taken in by the individual and throw into circulation the products of its own cellular functions which are toxic to the organism, and so create *emaciation, anemia* and *cachexia.* All these manifestations, however, are secondary and of far less importance in malignancy than the local destruction of vital organs.

The development of a malignant tumor is undoubtedly due to two factors: (1) the presence of a group of peculiarly changed cells and (2) the condition in the tissues or organ surrounding this group of cells which is favorable to the multiplication and the development of these changed (cancer) cells. Ribbert who for years maintained that only the second factor is needed for the formation of cancer and that otherwise every normal organ or tissue cell is potentially a cancer cell, in his latest publication also admits the existence of the two factors described above. He maintains now that the changes in the subepithelial connective tissue, which formerly served as the basis for his theory of the formation of cancer, appear frequently without a subsequent development of cancer. According to his latest conception, therefore, only certain specific kinds of subepithelial inflammatory processes may induce the formation of cancer. This specific *precancerous inflammation* of connective tissue is caused by products of the degenerative changes in the same epithelial cells, which subsequently lose their differentiation and acquire the proliferating power. In other words, they become *cancer cells.*

There has been gathered in the last quarter of a century a mass of clinical and experimental data which supports the view that a group of potential cancer cells will not develop a cancer unless there exists somewhere in the organism an area which through disease, abnormality or constant irritation becomes susceptible to formation of cancer. In other words, enters into a *precancerous state.*

Precancerous Conditions

Experimental Studies of Precancerous Conditions.—In 1913 Fibiger reported on a series of experiments which consisted in feeding rats with cockroaches infected with a nematode (threadworm). These rats developed in the stomach inflammatory conditions, papillomata and in a certain number of cases a true carcinoma with formation of metastases. This carcinoma he succeeded in inoculating into normal rats.

About the same time Yamagiwa and Ichikawa, two Japanese investigators, reported that they succeeded in artificially producing malignant epitheliomata of the skin by painting the skin of the animals—rabbits and rats—with coal tar and its derivatives. Since then a great deal of similar work is being done all over the world.

Two factors stand out prominently in all these experiments. (1) That the irritation must be continued for a long time. Eight months of treatment of a rat corresponds to about twenty-five years of treatment in a human, since the life cycle of a rat is only two years. (2) Only a small fraction of the number of animals experimented upon (10 per cent to 25 per cent) develop true maligant tumors, while the rest of the animals show at best only precancerous conditions. The significance of these two facts will be discussed later.

In the ultimate analysis the results consist in the following: The parasitic or chemical irritants produce a precancerous condition or in other words a favorable soil on which either an inoculable or a spontaneous malignant tumor develops. In this respect the results are analogous to an artificial production of a precancerous state which the writer reported in 1912. The research consisted in inoculation of various types of carcinoma and sarcoma of the white rat into different organs of normal animals. A "Flexner-Jobling" type of carcinoma of the white rat grows readily when inoculated subcutaneously or in any other organ, but does not grow when inoculated in the testicle.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, May 12, 1927.

In a series of animals the writer treated the testicles before the inoculation of the tumor with injection of a solution of Scharlach-R in Oil or with a 40% mixture of sulfuric ether in water. As a result of this treatment there was noted an injury of the parenchymatous tissues of the organ and formation of inflammatory connective tissue. The subsequent inoculation of the Flexner-Jobling carcinoma in such testicles was successful. In these experiments, like in the experiments with parasites or the coal tar products, the soil was made favorable for the development of cancer, a precancerous condition was created.

Clinical Studies of Precancerous Conditions.—There has accumulated, of recent years, much clinical evidence of a direct relationship between chronic irritations continued for years and the formation of cancer. East Indians in Kashmir who use *Kangri coal stoves,* develop epithelioma of the skin of the abdomen on the basis of a dermatitis produced by the heat of the stove. The Eastern women, who constantly chew *betel-nut,* develop epitheliomata of the cheek in the area in which the betel-nut was kept. Dr. A. Scott made an exhaustive study of the occupational dematoses of the paraffin workers of the Scottish *shale oil industry.* A certain number of the workers develop epithelioma following these occupational dermatoses. Workers in anilin dye factories develop cystitis and subsequently carcinoma of the bladder. Carcinoma of the bladder infected with *bilharzia, Paget's disease of the nipple,* epithelioma arising on the basis of an *X-Ray dermatosis* are other instances of the same kind. This clinical evidence leaves no doubt that continued chronic irritation acts as a precancerous condition and prepares a favorable soil for the development of cancer. A very interesting case came to New York City Cancer Institute recently in which an epithelioma developed on the basis of a tubercular skin ulcer. The case was reported elsewhere. The writer has shown in his clinical investigations that Hodgkin's disease begins as an infectious granuloma and then subsequently develops into a true lymphosarcoma. In some instances both conditions may be found in the same microscopical section.

The relationship between the formation of cancer of the *lip, tongue, mucous membrane of the mouth* and precancerous inflammatory conditions due to smoking, bad teeth, faulty dentures, plates or bridges, tuberculous or syphilitic conditions is also fairly evident. It is somewhat more difficult to trace this direct relationship in the development of other types of cancer, though the precancerous inflammatory conditions and cancer are noticed side by side. Cancer of the breast frequently can be shown to have developed on the basis of chronic mastitis. Lacerations and erosions of the cervix are followed by cervical carcinoma. The writer has observed several instances in which carcinoma developed on the wall of a tubercular cavity in the lung. Many more instances may be cited in which such correlation is present.

The relationship between carcinoma of the stomach and a gastric ulcer is still a matter of dispute. Pathologists maintain that there is no relationship between the two conditions while clinicians of wide experience claim that there is no doubt of the existence of such relationship. One must take into consideration the fact that like in all precancerous conditions cancer develops only in a small percentage of cases of gastric ulcer. Furthermore, the clinical history of the case may show the pre-existence of an ulcer and at an operation an early cancer may be found. But by the time the case comes to autopsy the advanced carcinoma may have destroyed all evidence of a former ulcer.

The same two factors which were shown to be of importance for the chronic irritation produced artificially in animals; namely, that the irritations must continue for a long period of time, and that only in small percentage of cases does cancer actually develop, are true in precancerous conditions in the human. The irritations must continue uninterruptedly for years and only in a small percentage of cases does cancer actually develop.

Precancerous Conditions and the Parasitic Theory of Cancer.—The search for a specific microorganism as the etiological factor in cancer began forty years ago immediately upon the discovery of the parasitic origin of infectious diseases. An amazing amount of work was done on the subject. In the majority of instances the specific organism upon further investigation proved to be an innocent saprophyte. It is impossible to attempt here to analyze all these investigations. One instance may serve to illustrate the point. Scheuerlen reported in 1887 that he obtained in pure culture grown on potato the specific microrganism of cancer. It has taken the work of many investigators for several years to show that the bacillus was an ordinary potato bacillus—a harmless saphophyte.

Every known type of plant or animal parasite was considered specific for cancer. Occasionally commercialism obscured the problem. Several years ago Otto Schmidt claimed not only to have discovered the specific cancer agent, the so-called Mucor racemosus, but to have also obtained a specific curative agent called *aristem*. The whole subject was thoroughly discredited by scientists at the time. However, a few weeks ago a German sales agent approached the writer with a request to try a new edition of the remedy which had just arrived from Germany under the name of *novaristem*.

All the former conceptions of the parasitic origin of cancer were purely hypothetical and the opinion of the majority of the scientific investigators including Virchow and his school of pathologists, was against it. With the advent of experimental cancer research, however, the question of the parasitic theory became again the order of the day.

In 1907 Dr. E. F. Smith showed that the disease of plants called Crown-gall—tumor-like in nature—could be reproduced artificially by an inoculation of a normal plant with a pure culture of a bacillus which he called Bacterium tumefaciens. Smith maintained that Crown-gall is a true plant cancer. In his estimation this tumor is practically identical biologically with animal and human cancer. Since Crown-gall is caused by the action of the bacterium tumefaciens, he concluded in one of his recent articles that "to a biologist the conclusion is almost irresistible that human cancer must be due to a parasite and that one parasite may well be the cause of the most diverse forms, as we have seen to be the case in plants." This deduction is so sweeping in character, so far reaching in its generalization, and the results of Dr. Smith's work have become so widely known and quoted by the medical profession, that it has seemed to the writer to be desirable to renew his investigations and to analyze the material from the viewpoint of animal pathology and to attempt to determine the true analogy between the Crown-gall and animal cancer. The investigation was done in collaboration with a botanist, M. Levine.

The results obtained may be briefly summarized as follows: Crown-gall is undoubtedly a neoplastic disease and the pathogenesis of the condition consists in an abnormal proliferation of a group of cells.

In order to formulate clearly, however, the position which the Crown-gall occupies among the neoplastic diseases, one must take into consideration the fact that the Crown-gall is usually a benign condition and only rarely does it act in a manner analogous to a malignant tumor in an animal.

The malignant type of Crown-gall is undoubtedly quite analogous to animal cancer. This malignant transformation occurs, however, rarely, and is not related to the function of bacterium tumefaciens.

The possibility of omnipresence of a specific micoorganism causing the formation of all types of cancer cannot be denied offhand. However, the behavior of such hypothetical organism would have to be different from that of any parasite known to date. All pathogenic microorganisms investigated thus far produce a destructive degenerative effect on the cells of the invaded tissues. This effect may be accompanied by reactive neoplasia of the lymphoid tissue. It is conceivable that such a purposeful reactive neoplasia may gradually change into malignant neoplasia of the local connective tissue when the soil of the host is favorable. The pathogenesis of sarcomata, particularly lymphosarcoma, Rous' chicken sarcoma, as well as the plant tumors, as was shown above, may be closely related to the pre-existing reactive neoplasia caused by a parasite. In other words, it is difficult to prove that in connective tissue cancers the secondary tumors are metastatic and are not created anew in the distant regions through the action of an invisible parasite on the connective tissues of the new location. A metastatic adenocarcinoma of the rectum in the brain from a primary in the rectum, however, cannot be conceivably created from any of the cells of the latter organ.

The action of a hypothetical cancer microorganism can be conceived only in one of the following two ways: Either the organism acts on the first group of organ cells, changes them into cancer cells and then ceases its function. In this case the action of the parasite would be subordinate to the cellular function and would not differ from a non-specific chemical irritant. The proliferative power of cancer cell itself would be the true cause of cancer. Else the constant presence and action of the parasite is needed for the formation of the primary as well as the secondary malignant tumors. Such a parasite would have to live in symbiosis with the cancer cell, divide simultaneously with the latter and migrate together throughout the organism of the host, in a word, must submerge its life and function with the life of the cancer cell.

Precancerous Conditions and Inheritance in Cancer.—An analysis of all the available data of the causation of cancer indicates that the formation of a malignant tumor is the resultant of three factors. (1) The innate power of every normal cell to proliferate. This fact, that any normal cell relieved of the restraint of the rest of the organ begins to proliferate has been conclusively proven by the successful cultivation of normal as well as cancer cells in vitro. (2) An irritant which initiates the proliferation of cells for the purposes of protection and repair. (3) Lack or weakness of those inhibiting powers of an adult organism which keep in check all its normal tissue cells against purposeless malignant proliferation.

While the second factor is extrinsic in its nature, the first and third factors are inherent characteristics of all living organisms. It is plausible to suppose a priori, therefore, that these latter factors in causation of cancer may be characteristics transmitted by inheritance to subsequent generations.

The problem of inheritance in cancer has been occupying the minds of investigators for a long time. The results were rather unsatisfactory. With the advent of the modern science of genetics, which is based on the fundamental laws of inheritance discovered by Mendel in 1865, the subject of inheritance of cancer was taken up anew.

The writer has shown in 1910, in a series of experiments, that the offspring of rats immune against the inoculation of a tumor is partly immune and partly susceptible to the inoculation. The ratio between the number of resistant and susceptible animals seemed to correspond with the Mendelian laws and also seemed to indicate that the inherited power of resistance is a dominant unit character in accordance with the terminology of Mendelian genetics. Similar conclusions were arrived at by Maud Sly in her studies of inheritance of spontaneous tumors of mice. Th. H. Morgan and his pupils have discovered a malignant tumor of the fruit fly (Drosophila melanogastes) which is transferred by inheritance in conformity with Mendelian laws. The writer made a study of the influence of heredity in human cancer by the aid of an analysis of the collected data in accordance with the Mendelian laws of eugenics. A number of families were studied for several generations back. The analysis of the material shows that the incidence of cancer in these families is not greater numerically than would be found among the population of the community as a whole.

The further conclusion may be thus drawn from the analysis of the results obtained that *resistance to cancer is a dominant character whose absence creates the susceptibility to cancer.*

The most important result of the investigation thus far consists in the fact that it shows the importance of the presence of an inherited resistance to cancer growth. It may be of the greatest benefit for the future study of the subject of cancer to bear in mind not the fact that out of ten persons who reach the cancer age one suffers from the disease, but that nine out of ten remain immune.

It is very significant in this connection that an analysis of all the material experimental as well as clinical, obtained in the study of the relation of chemical or parasitic irritants on the formation of cancer, show the same results. Namely, of the whole number of animals used or the clinical cases investigated, only a comparatively small percentage develops cancers. This successful fraction generally ranges somewhere between 10% and 25%. This is rather close to the main fundamental Mendelian law that in the second generation there appear 75% with dominant unit characters and 25% recessive.

The sum total of our knowledge of the causation of cancer to date make the following conceptions to be the most plausible. (1) Attempts at formation of cancer in any organism is frequent but the greatest number of people (not less than 75%) have an inherited capacity to resist the formation of cancer. (2) The human society is so inbred that every family has a certain number of members in one generation or another with an inherited susceptibility and further intermarriage cannot alter the situation. Consequently, in reality inheritance does not increase the chances of an individual to develop cancer. (3) Without an additional local irritation of some kind, cancer may not develop even in a susceptible individual.

THE MEANING OF PREVENTION IN CANCER

Cancer is a disease of advanced age. An irritation due to occupation or improper mode of life must continue, as was indicated above, for a number of years before a cancer will develop in a susceptible individual. It is impossible to foretell who are the susceptible individuals in a group of a hundred men who are engaged in X-ray work or in shale oil industry or neglect the rules of oral hygiene. But were all the hundred men properly protected in their industries or in their modes of life, the susceptible individuals would not contract this special type of cancer and thus may be enabled to pass their normal span of life without developing any type of malignancy.

It is self evident that prevention in cancer means to prevent by the aid of protective or correcting measures the development of precancerous conditions and to correct and cure these conditions before they have developed into true cancers.

In certain very important types of cancer, namely, those of the gastro-intestinal tract, the breast, the uterus and the genito-urinary organs, the true nature of the precancerous conditions is not certain, and the matter requires further investigation. This is a subject for *clinical cancer research* and must be pursued on large clinical material very painstakingly and thoroughly treated.

Prevention of Cancer means recognition of precancerous conditions and the resulting early stages of cancer and the prompt and efficient treatment of these conditions. Consequently, *prevention of cancer means early diagnosis of cancer.*

CANCER DIAGNOSIS

Many attempts were made to apply the serological methods of diagnosis which are of such importance in parasitic diseases, to the diagnosis of cancer, but with uniformly negative results. Of greatest promise seemed to be for a time the so-called Abderhalden test. The writer in cooperation with Van Slyke has definitely proven the method to be of no value.

Pathological Diagnosis.—At the beginning of the pathological study of cancer the fine morphological differences, as observed under the microscope, did not seem to have any bearings on the clinical condition, had only an academic interest, so to speak, and seemed to be of much less intrinsic value than the descriptive botanical classification of plants, for instance. However, the clinical study of cancer kept pace with the progress of clinical medicine, and with the development of the more and more refined methods of diagnosis of the diseases of the various organs and systems of the organism. It was soon noticed that in order to obtain a correct estimation of the clinical course of a malignant tumor and of the consequent method of treatment and prognosis both the morphological structure of the tumor and the place of its derivation has to be considered. For instance, adenocarcinoma of the cervix has a different clinical course, requires a different method of treatment and gives a different prognosis than a similar adenocarcinoma of the body of the uterus.

W. S. Lindsay has further demonstrated very recently that the carcinoma of the body of the uterus itself has to be divided into two groups; one, adenoma malignum which is of low grade malignancy and is very readily influenced by radiotherapy without any surgical intervention, and adenocarcinoma of the body of the uterus which is a highly malignant type of disease.

On the other hand, two tumors of the same organ but with a different microscopical structure, carcinoma and lymphosarcoma of the tonsil, for instance, have an entirely different clinical course and present a different prognosis. At the same time on clinical analysis without the aid of the microscope these two conditions frequently cannot be differentiated from each other. The investigations of A. C. Broders seem to indicate that grades of malignancy and consequent therapeutic results may be differentiated through the study of morphological differences even in the same type of a malignant tumor.

Of particular value is the pathological research in connection with the relationship between the morphological structure of malignant tumors and the therapeutic results obtained. It has been shown that radium and the X-rays act differently not only on tumor tissues as compared with normal tissue but also give better results on certain morphological types of malignant tumor tissue. The same must be true as regards the ultimate results of surgical therapy.

Influence of Early Diagnosis on Therapeutic Results.—The perusal of therapeutic results obtained in cancer by the aid of surgery, radium and X-rays shows a situation apparently paradoxical. On the one hand, in selected cases not less than 50 per cent of the cases operated upon may be cured by surgery alone. Radium and the X-rays produce such striking results in even hopeless inoperable cases that with a proper coordination of surgery, radium and X-ray therapy undoubtedly a larger percentage than 50 may be cured of the selected group of cases. On the other hand, only a small percentage of all the cancer patients of a community is cured of cancer with all the therapeutic methods at our command. What is the reason? The patients are coming too late for treatment. The chart shown here gives the difference between the surgical results in cases that come for treatment early as compared with those that come for treatment late.

	% of the total No. of Cancer Patients	% of possible S'g'c'l Cures	% Cured of total No. of Cancer Patients	% Act'ly Cured Surgically	% Act'ly Cured of Total No. Can. Pts.
Intraoral Cancer..	4	75	3	20	0.8
Stomach	30	25	7.5	3	0.9
Rectum	10	30	3	9	0.9
Uterus	15	50	7.5	10	1.5
Breast	10	70	7	20	2
Skin	3	100	3	..	3
	—	—	—	—	—
	72		31		9.1

R. Peterson in a paper on the radical abdominal operation for cancer of the cervix reports that 59 per cent of all the cases that he operated were permanently cured. However, of 380 patients suffering from cancer of the cervix who came to him for treatment only 60 or about 15 per cent were found to be operable; all the others, or 85 per cent came too late for treatment. Dr. Gibson, reporting on 110 cancer patients cared for at the New York Hospital from February 1913 shows again that 84.5 per cent entered the hospital in a late hopeless condition. Fully half of these late cases were treated by physicians for months without a recognition of the true nature of the disease. In the experience of the writer, both in the hospital and private work, nearly 75 per cent of the cancer patients were treated by physicians for a longer or shorter period of time without a diagnosis of malignancy. The fault does not lie in the lack of therapeutic measures, of a "cancer cure." Treatment that succeeds in over half of a selected group of cases ought to be able to take care of most cases of cancer. Nor is there any weakness in diagnostic methods. With the aid of *pathological* and *chemical laboratories, roentgenography, illuminating methods* (laryngoscopy, oesophagoscopy, proctoscopy, cystoscopy, bronchoscopy) and a *thorough clinical investigation*, very few cases of early cancer should escape detection.

Cancer Diagnosis and Periodic Health Examination

The real difficulty in cancer diagnosis lies in the fact that at the beginning and the early development of the disease it is not accompanied by symptoms sufficiently characteristic to cause the patient to consult a physician. What makes the situation graver still is the fact that when the physician is already consulted the symptoms are so vague that on their basis a tentative diagnosis of malignancy cannot be made. The physician whom the patient consults first, the family physician, is a general practitioner. The tendency of the latter is usually to use therapeutic measures and relieve the urgent symptoms, the discomfort of the patients, rather than to make a thorough diagnostic analysis of the case. The result is a temporary relief of the symptoms and a continued unabated development of the malignant growth. A woman may be relieved temporarily of her uterine bleeding and offensive vaginal discharge by appropriate medication, though the cause of both is a uterine malignant growth. Symptoms of dyspepsia may be relieved temporarily though the cause of it may be an early cancer of the stomach, and so on.

It is of the utmost importance for the practitioner in medicine to realize that a complete and thorough examination of the whole organism of the patient is the prerequisite for the detection of the early stages of cancer. Furthermore, real progress in the early diagnosis of cancer will only take place when the general public becomes educated to the necessity of periodic health examinations. This education can be done efficiently only by each practitioner in his own lay circle.

Cancer Diagnosis and Group Practice of Medicine

Periodic health examination means an analysis of every organ and system of the organism of the patient. This is particularly important for the detection of early malignancy. The writer had occasion to examine many patients whose chief complaints gave suspicion of malignancy in a certain organ. The findings in this organ were negative, but an entirely different organ showed early malignancy though there were no symptoms indicating it.

It is impossible for one individual physician to master all specialties, therefore, periodic health examinations will become a success only when even in small communities the physicians will group together, each one become proficient in one specialty though not relinquishing the general practice of medicine.

The Need of Cancer Centers

The medical profession and particularly the surgical specialists maintain that the diagnosis and therapy of cancer do not constitute a specialty and that a well equipped general hospital is fully capable of taking care of cancer patients. This in spite of the fact that specialization in medicine is drawn so fine today that, for instance, we do not only have laryngologists, but tonsilologists and special tonsil hospitals. It is impossible to conceive that cancer, a chapter in medicine which presents the most complex and difficult problems, as regards research, diagnosis and therapy, is not a specialty. While admitting that an individual surgical clinician of experience may be able to take care of any cancer patient in a correct manner, there are many reasons which make the organization of special Cancer Centers or Hospitals indispensable. Such Cancer Centers must not only take care of cancer research but also must actively care for and treat cancer patients. The following are some of the reasons which make the establishment of Cancer Centers the most important step in the solution of the Cancer Problem.

1. At present there is no question that the great majority of lay people fear the knife and hope that their particular cancer—and many of the cancer patients suspect if they do not actually know that they suffer from the disease—can be cured by another remedy than the surgical intervention.

In the course of many years of clinical work at the Montefiore Hospital and particularly at the New York City Cancer Institute, which is known to be a clinic and hospital for cancer patients only, the writer has made over and over again the following observation: A cancer patient who refused to be operated upon at the advice of a general surgeon and enters the New York City Cancer Institute with the hope of finding another remedy, readily undergoes the operation when so advised at the Institute. On the other hand, if recognized cancer institutions were nonexistent, this would play into the hands of commercial establishments like the Koch Cancer Foundation, and many similar fake organizations who actually advertise their antitoxins, serums or what not, and claim to cure all cases of cancer. They bear pseudo scientific names, claim to have special scientific departments, have physicians' names on their literature which simulates in form real medical literature, and use all the slogans of scientific institutions. If scientific medicine refuses to maintain cancer hospitals and cancer institutes then cancer patients will be thrown to the mercy of these quack institutes. That is undoubtedly a very important reason for the need of a cencer center.

2. The other reason for having Cancer Centers is the educational influence which their mere existence would exert on the general public. The fact that a number of scientific institutions are organized for the treatment of cancer, will impress the public as proof that cancer cannot be a hopeless condition since otherwise there would exist only homes for incurables to which cancer patients would be sent to die.

3. The third and most important function of a Cancer Center is the following: A few sur-

geons of experience may know all the phases of Clinical Cancer but the profession at large recognizes only the late hopeless stage of the disease and misses the early hopeful stage with a resultant pessimistic attitude to the whole problem. Unfortunately this is true even when it concerns the physicians' own families. A young surgeon who obtains his training in a fully equipped cancer hospital and clinic has an opportunity to see side by side all types of cancer patients. Clinically, I divide all cancer patients in the following three groups: Class A patients are either in a pre-cancerous state or in so early a stage of the disease that it takes little effort to control it. The class B patients are the so-called operable or border-line cases for which there is a good chance of arresting the disease. Finally, the class C patients are hopeless cases, who cannot possibly be taken care of in an acute surgical hospital because they require too long a period of hospitalization. When the young doctor becomes accustomed to seeing all the three types of cancer patients in the same institution he will be able in future practice to visualize in his mind a picture of Class C when he sees a patient in Class A, and therefore he will take seriously every Class A patient and will not wait with therapy until the patient reaches the stage C. At the New York City Cancer Institute, I consider this training and education, not only of the young resident staff, but of all physicians who visit the Institute or refer their patients to it, our most important function.

POPULAR EDUCATION AS A FACTOR IN THE CANCER PROBLEM*

By JOHN M. SWAN, M.D., ROCHESTER, N. Y.
Chairman of the New York State Committee of the American Society for the Control of Cancer.

At the International Conference on Cancer Control held at Lake Mohonk in September, 1926, the students of the cancer problem, who there discussed ways and means, agreed to a statement of facts and opinions on the methods to be followed. Among these statements occur the following: "3. The control of cancer, as far as this subject can be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent cooperation of the patient and physician.

"4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease, in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

"7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject and induced to seek competent medical attention when any of these indications are believed to be present.

"14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowldge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

"15. Efforts toward the control of cancer should be made in two principal directions: (1) the promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay."

I find many physicians in the State of New York who believe that no information should be given to the public because, first, we do not know the cause of cancer; second, we have no treatment to offer, that will cure cancer; third, we will create many cases of cancerphobia by talking about cancer to groups of lay people.

These physicians either have forgotten or do not know of the result of the education of the public in the facts about tuberculosis. In 1903 the death rate from tuberculosis in the registration area of the United States was 201.9 per 100,000 population; in 1923 it was 93.6 (mortality statistics, 1923. Twenty-fourth Annual Report, Bureau of the Census, 1926: 37).

In New York State the death rate from tuberculosis per 100,000 in 1900 was 213.7; in 1925 it was 90.9 (supplement to the Monthly Vital Statistics Review, New York State Department of Health, 1926, 6:209). These results have been achieved very largely through popular education.

We do not know the cause of cancer; but General Gorgas and his co-workers, through the application of the facts determined by the U. S. Army Board for the Study of Yellow Fever, was able to banish yellow fever from the Canal Zone many years before Noguchi isolated the spirochete.

Many of us are of the opinion that surgery, radium or X-rays property applied and resorted to early will cure cancer. If we can convince lay people and physicians that chronic irritations and low grade inflammatory processes ought to be considered as potentially malignant and treated by appropriate methods until cured, the annual crop of malignant tumors ought to be lessened. The sore that does not heal readily, the persistent indigestion with loss of weight after middle life, the chronic discharge from any of the hollow organs, particularly if it is hemorrhagic, the lump in the female breast, the pigmented mole demand serious consideration as precancerous lesions. We cannot treat these lesions unless the patient calls them to our attention. When they are brought to our attention they merit serious consideration, even though they are resistant to our first efforts. The patient becomes weary of the necessary treatment; the doctor becomes discouraged at the apparent lack of results.

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

Cancerphobia is common now. Talking about cancer will not produce more cases; it will bring more cases out into the open and a sound appreciation of the situation will definitely reduce the number.

Many of us are convinced of the practicability of attacking the cancer situation by popular education. Let me quote the opinion of some of the leading students of the cancer problem in the United States: "On account of the great interest manifested by the public in cancer (and in fact in everything pertaining to the subject of disease and health) diagnosis is made earlier and operations are consequently more successful on external cancers that can be observed or felt by the physician or the patient himself. This shows the advantage of the public discussion on cancer, cancer week talks, and the effectiveness of newspapers in aiding in this work of education. The surgical treatment of cancer is now much more effective than it was twenty years ago; the operations are much more thorough; and fixed and locally advanced growths involving the primary and secondary lymphatics and those with contact growths or metastases are treated with radiation or other nonsurgical measures, and thus reduce unnecessary surgical mortality" (Charles H. Mayo and William A. Hendricks Ann. Surg. 1926, 83:357).

"As we have enlightened the public and as the public has come to understand our messages, the percentage of inoperable and hopeless cancer has fallen: in the records of the Johns Hopkins Hospital from more than 50 per cent, previous to 1900 to less than 5 per cent since 1920" (Joseph Colt Bloodgood, Jour. Am. Med. Ass., 1927, 88:1022).

"Most of the clinical articles on cancer in Medical Journals comment on the late stages in which cases come to treatment. The authors frequently deplore the situation. In this situation there is no more valuable instrument to use than the daily newspaper. Its ceaseless activity, its wide human interest, its tremendous appeal, reaching the entire community, both lay and professional, can be made to tell the whole story of cancer—how to treat it" (Harry C. Saltzstein, Jour. Am. Med. Ass., 1926, 87:347).

"Unless, therefore a patient knows something of the antecedent conditions of cancer, of its early manifestations, of the importance of early treatment, how is he to realize that a medical man should be consulted without the delay of one single day? In Yorkshire I have the happiness to command a band of brothers. The medical and scientific committee of the Yorkshire council has appointed a propaganda sub-committee under the chairmanship of Dr. Hillman. This sub-committee will endeavor to instruct the public in such matters as it is essential for them to know if they are to help us, and will teach them to realize that the only hope of amelioration or of cure in cases of accessible cancer rests upon early diagnosis and skilled surgical treatment." (Sir Berkeley Moynihan, President of the Royal College of Surgeons, England. American Society for the Control of Cancer, 1927:6).

"The American Society for the Control of Cancer has bravely continued its splendid work of disseminating the known facts about cancer and also in making valuable statistical compilations." (John G. Clark, Progressive Med. 1926, 2:195).

"The laity must be taught by an intensive and continuous nationwide campagin to report all minor lesions, signs or symptoms at the earliest moment and physicians must learn that all cancers begin in so-called minor lesions and become alert to their possibilities so that the laity may expect their potentially cancerous lesions to be removed before they become cancerous.

"On account of the over emphasis on research and the neglect of practical clinical considerations, the medical profession is like a reserve army waiting in the rear for the research generals to give the order to advance, while the enemy is busy at the front dealing torture and death. Every physician should be constantly on guard to prevent the enemy from becoming intrenched." (Carl E. Black, Jour. Am. Med. Ass., 1926, 87:1941).

Popular education seems to be a method at hand and practicable in the attack on the cancer problem. The New York State Committee of the American Society for the Control of Cancer feels that it would be equivalent to missing an opportunity if it waited until the cause of cancer is discovered before using an available method which might be successful in reducing the mortality from malignant disease.

RADIUM TREATMENT IN ANGIOMAS*

By G. ALLEN ROBINSON, M.D., NEW YORK, N. Y.

DURING the past seven years I have treated 276 cases of angiomas with radium. There were 188 females and 88 males, a proportion of a little more than two to one. It is believed, however, that girls are no more prone to angiomas than boys, but that there is more concern about the cosmetic appearance of the girls.

Seventy-seven children were under six months of age; thirty-nine between six months and one year; twenty-five between one and two years, while forty-nine patients were over twelve years of age.

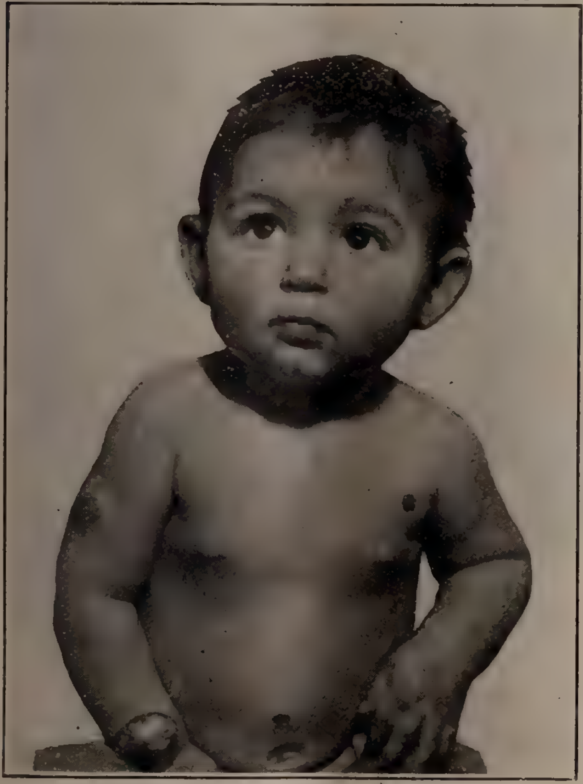

Fig. 1. Multiple Angiomas Showing Ulceration.

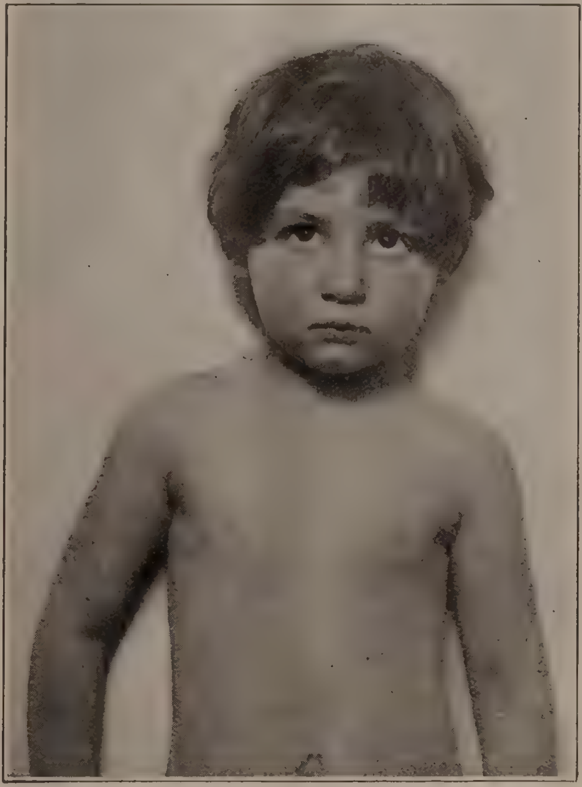

Fig. 2. Lesions Healed after Radium Treatment.

In a few cases there were multiple tumors and in others the lesion was very extensive. In one case with twelve separate angiomas, three had ulcerated.

The location of the lesions treated are as follows:

Forehead and Scalp	56
Eyelids	16
Eyeball	5
Ear	6
Nose	33
Cheek	64
Upper Lip	19
Lower Lip	14
Neck	13
Trunk	32
Upper Extremities	26
Lower Extremities	13
Total number lesions treated	297

The action of radium on vascular tumors is summarized by A. E. H. Pinch of the Radium Institute, London, as follows:

"Prolonged intensive radiation of blood vessels with radium is productive of proliferation, vacuolation, and degeneration of the endothelial cells, with leucocytic infiltration of the walls and subsequent distortion of their caliber. If however, the radiation be of mild degree, acting for a short time at prolonged intervals, multiplication of endothelial cells with increased fibrosis of the vessel wall occurs. These changes result in a definite narrowing, perhaps even obliteration of the smaller vessels and it is in this fashion that the cure of angiomas is induced."

Radium exerts a definite specific selective action on the abnormal endothelial cells lining the blood vessels which are at fault in the process. Apparently this is not true of any other therapeutic agent at our command.

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* Read before the Section of Pediatrics, Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, May 11, 1927.

The radium dosage and method of application depends upon the type and size of the lesion. There were twenty-three cases of portwine marks in this series. Mild or suberythema doses with beta and gamma radiation are used. The interval between treatments should be from four to six weeks. Great care must be taken to avoid in inflammatory reaction, which would be liable to produce irregular discoloration of the lesion, scarring and telangiectasia. After six to ten treatments there should be a distinct fading in the color of the lesion and the skin remains apparently normal. Complete removal of portwine marks, as in raised vascular nevi, is not to be expected, but with the lesion two or three shades lighter than originally, together with the use of cosmetics, fairly satisfactory results are achieved.

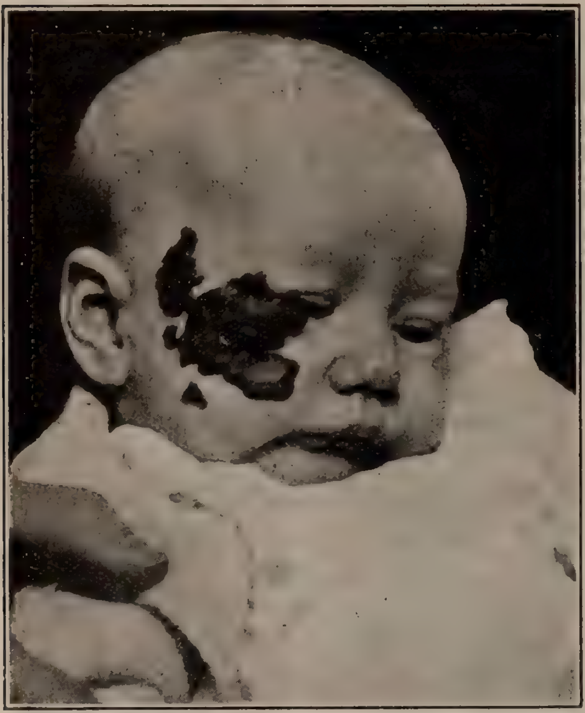

Fig. 3. Extensive Angioma Right Side of Face.

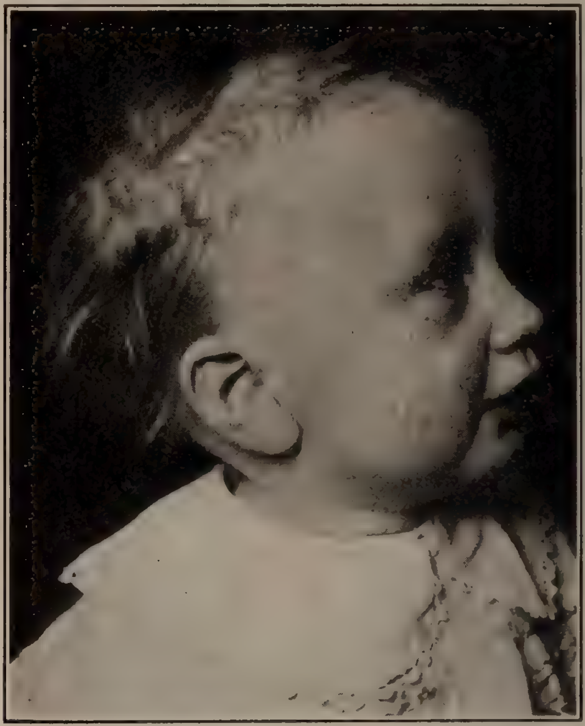

Fig. 4. Twenty-two Months after Radium Treatment.

The tuberous angiomas varied from a superficial, slightly elevated or strawberry mark to massive infiltrating pulsating growths. In the small flat lesions a 50 milligram radium tube screened with one millimeter of brass and one millimeter of rubber may be applied to the surface of the lesion for one-half hour, or a standard 10 milligram radium placque properly screened may be used. The treatments are repeated at intervals of from three to four weeks. In small cavernous angiomas the insertion of 10 milligram platinum radium needles one-half centimeter apart and allowed to remain for our hour gives splendid results. In several cases, particularly of the lip, in which plaque radiation had failed, the lesion responded easily to the interstitial method. In cavernous angiomas 2 to 4 centimeters in diameter radiation at one centimeter distance is advised in order to obtain a proper depth dosage, and to avoid over action at the surface of the tumor. One hundred milligrams of gamma radiation at one centimeter distance may be applied to an area five centimeters square for three hours. In huge cavernous angiomas radiation at three to five centimeters distance with a larger amount of radium is necessary to affect the deeper portions of the growth.

The majority of angiomas are present at birth or shortly afterwards. The results indicate that the lesions should be exposed to treatment in the first six months of life, as the walls of the blood vessels become thicker and more organized in the older groups and are, therefore, more refractory to radiation. Bleeding and ulceration were apparently no contraindications to treatment. These conditions were very much decreased after the first application of radium.

The number of applications varied from three to five in small angiomas, to twenty to thirty in the most extensive cases. There were no untoward after effects following the treatments. The final results, except in a few instances, may be described as excellent. In one case, a young man, the entire left cheek—skin, muscles, mucosa and antrum—were involved with widely dilated blood vessels. The result in this case was not satisfactory. In another case, a girl fifteen years of age, with a large cavernous angioma of the orbit, there was danger of over radiation to the eyeball.

In general, however, radium may be considered the treatment of choice in angiomas, and supplants in a large measure the scapel, carbondioxide snow, caustics and caudery.

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CERTAIN PATHOLOGICAL CONDITIONS OF THE CERVIX UTERI TENDING TOWARD CANCER*

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HUXLEY said: "Sit down before a fact as a little child. Give up every preconception and prejudice. Be ready to follow wherever fact may lead, or you will learn nothing." No subject of research requires this spirit more than that of cancer. We must get the facts and follow where they lead.

A brief epitome of the history of cancer research and a comparison of former views with those of the present is helpful.

We might say that the modern conception of cancer began with Laennec 1804. Cancer of the breast was carefully studied by Lobsten, Cruvelhier, Velpeau, Astley Cooper and others. In 1838 the cell theory was established by Schleiden and Schumann 1839; and had been applied to tumors by Johannes Muller 1838, who attributed cancer to new specific cell formation within the connective tissue of an organ, with profound affection of the whole system. He was the first to demonstrate nuclear epithelium in cancerous tissues.

Following these discoveries came the attempt to discover specific cells.

From 1847-1852 valuable contributions were made by von Bruns who stressed the role of the lymphatics in spreading cancer; by Hanover who named and described epithelioma; and by Bidder who described and named cylinder epithelioma.

Remak 1841-52 established the growth of new tissues by the division of pre-existing cells. This knowledge was applied to pathological formations by Virchow, who in 1885 described cancroid, and later cancer and heteroplastic tumors as proliferations of connective tissue cells, due primarily, both in cancer and its metastases, to some irritating element or secretion. Virchow's description thus stands to-day with the riddle unsolved.

In 1872 Conheim advanced the theory of tumor formation from a rest or group of misplaced foetal cells, which became activated through some cause unknown. The adoption of this theory has been a serious hindrance to the advancement of cancer research.

Hausemann Ribbert and others about 1904-11, insisted upon a modification of Conheim's theory to the effect that undifferentiated epithelium may proliferate into cancer.

(1) "Arthur Hanan of Zurich made the real start in 1889 in experimental transplantation of epithelioma in white rats. His work was preceded by Novinsky in 1876, Weber in 1878, Cornil and others, but remained unrecognized until its confirmation by Moran 1894 and Barel 1903.

"Inoculability of sarcoma in rats was established by Leo Loeb in America 1901, and Jenson in Denmark 1903, who carried rat sarcoma through forty generations of rodents without change in microscopic structure.

"In 1911-14 Peyton Rous demonstrated the specific character of sarcoma in the mesoderm of Plymouth Rock chickens by experimental transplants and inoculation of cell free filtrates. Extravital cultivation of malignant tissues was established by Carrel and Burroughs 1911, extended to an indefinite period by feeding the culture with chicken muscle by A. Fischer 1925, while Drew showed that malignant tumor cells produce a growth inducing substance (Carrel's trephone) as in the case of injured normal cells.

"Bazon 1912, Yamagiwe and Ichagawa 1916 produced epithelioma in rabbits by injection of tar products. Leitch produced carcinoma, epithelioma and sarcoma in animals by potassium arsenate paraffin and other substances. X-ray and radium have produced cancer. Nematode worms have produced cancer as first noticed by Borel 1910 and demonstrated by Fibiger in 1914.

"Rhodenburg got sarcoma in rats by feeding with cystocercus fasciolarus.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 10, 1927.

"Other experiments have proved the development of cancer through chronic irritation. This, however, leaves the subject wide open for chronic irritation is a factor composed of many puzzling elements. Cystology seems to offer the most promising field for the solution of the problem."

(2) Montrose Burrows states that: "The actual neoplastic change of normal cells into cancer cells is the essence of the cancer problem. Further, cancer in the light of certain facts cannot be a reversion of the cell to an embryonal type, but rather the return of the cell to its more primitive state or a release of it from those forces dominating it in the organism.

"The present view of cancer abrogates the theory of Conheim for this type of tumor. The writer has long felt that one of the factors in the causation of cancer of all forms is one or more specific microorganisms.

"There are close analogies in the development of certain tumors in which specific microorganisms are known factors. Some of these are the gumatous tumors (syphilis), tubercles (tuberculosis), tubercles of leprosy, condylomata (gonorrhea and syphilis), and other tumorous developments from known specific infections.

"The writer believes that light may be thrown upon the cancer problem by further study of cell reactions in the above class of cases.

"The existence of cancer localities of special family susceptibility of chronic irritations as factors, point strongly to a specific cause. The great variety which chronic irritation takes is no argument against a specific agent, as the chronic irritation may produce some condition or substance favorable to the entrance of the specific cause.

"The fact that metastases are all the same type as the mother tumor, is also no argument against specificity, as the migrated cancer cells would doubtless be infected. The problems affecting cancer and non-malignant growths are to some extent identical but differ in important particulars. The finding of a specific organism for cancer would not solve the problems of benign growths, nor would the finding of an organism for one type of malignant disease necessarily solve the problem for other types, but it would go a long way toward doing so.

"The above views are not those of a majority of cancer researchers."

(3). A quotation from Willy Meyer's presidential address to the Cancer Research Society will give a fair expression of the majority of views of the present:

1. "From all the uncertainties that still surround the problem of cancer, there stands out at least one observation which, by general agreement has been universally accepted as a definitely established fact, that the cancer cell was at one time a normal cell,—a cell of that particular tissue in which the cancer arises.

2. "To the process of transformation of the cells from one state to the other non specific factors such as mechanical, thermal, actinic, chemical, endocrine, heredity, stand as inciting but incidental causes.

3. "Current experimental production of primary cancer by various non specific means makes the search for the specific cancer agent appear as no longer advised, and seems to prove that irritation is ordinarily the starting point of processes tending in the direction of cancer.

4. "As nearly as anything can be certain in medicine there is no cancer contagion, i.e., infection.

5. "Observations seem to prove that cancer is in every instance an individual experience.

6. "More than one individual may receive a non specific inciting factor from the same source and, then, independently by reason of the same, may or may not develop cancer.

7. "Around a source disseminating directly or indirectly through intermediate hosts, one or more inciting factors, cancer houses, cancer towns, cancer districts, may grow up."

Other conclusions in this article relate to treatment. In the opinion of the writer the work of Gye and Barnard, Peyton Rous, John Nuzum, and others shows a serious and more or less successful attempt to establish a specific cause for cancer.

The outlook is most hopeful of solving the problem, but there is ample room for more research both in cytology and bacteriology.

The means for research have made great strides; the ability to create animal cancer at will for purposes of study; the ability to cultivate living cells outside the body, where they may be independently studied; the improved methods of microphotography; the advances in biochemistry; the increased facilities in bacteriological technique,—all tend to make possible investigations which should make the advance much more rapid than in the past. Up until the present time the practical outcome of all the investigations is a limited and unsatisfactory treatment and we have (4) to expect one out of every eight women, and one out of every twelve men to die a miserable and lingering death from cancer. The prevention therefore, becomes one of the most important and serious problems of mankind. Cancer of the uterus and especially of the cervix uteri, is one of the common forms met and it is the belief of the writer that there is here one of the largest and most satisfactory fields of cancer prevention, and that this useful field of endeavor is much neglected.

Laceration of the cervix and its accompanying hypertrophic changes and reparative efforts seems to be one of the most important factors in the chronic irritation of that organ, and if anything is proved in cancer development it is that chronic irritation is a factor. The following statistics strongly support this view:

Some interesting facts are revealed by statistics in 200 cases of carcinoma of the cervix which the writer has gathered at the New York Post-Graduate Hospital, being his own cases and those of several other surgeons.

The age incidence is as follows:

20—30 yrs.	10 cases or	5%
30—40 yrs.	50 cases or	25%
40—50 yrs.	74 cases or	37%
60—70 yrs.	19 cases or	9½%
over 70 yrs.	1 case.	
50-60 yrs	46 "	= 23%

It will be seen from the above that after 40 years, 140 cases—or 74%—occurred. In regard to social state, 26 were single (13%). In regard to maternity, 58 had never been pregnant (29%). This includes single cases as well as sterile married women. This is a revelation to the writer as 74% of cases occurred after 40 years of age, and it is to be assumed that a large majority of women are married at that time so that it would indicate that single women (nulliparæ) are as susceptible to cancer of the cervix as married women, which is contrary to the usual belief and would require more study and further statistics before being accepted.

The 200 cases had 330 children;—rather a small average. One woman bore 14 children and one 10, but the rule is small number or sterility. Sixty married women had no children.

(5). Lynch: "The great majority of cases of cancer of the cervix occur in women who have borne children. Occasionally they occur in virgins, but usually in women who have had dilatation of the cervix. Sampson found that in 412 uterine carcinomata only 3% were nulliparæ. Williams in 334 cases found 4% were in nulliparæ. Cullen found that in 64 cases of carcinoma of the cervix, 7 had not borne children."

Gusserow gives the age distribution in cancer of the uterus in 3,471 cases as follows:

40—50 yrs.	1196
50—60 yrs.	856
30—40 yrs.	770
60—70 yrs.	340
70 and over	193
20—30 yrs.	114
17—19 yrs.	2

This brings out the interesting fact that after 40 years of age 2,822 out of 3,471 cases of cancer of the uterus, occur more than two-thirds of all the cases.

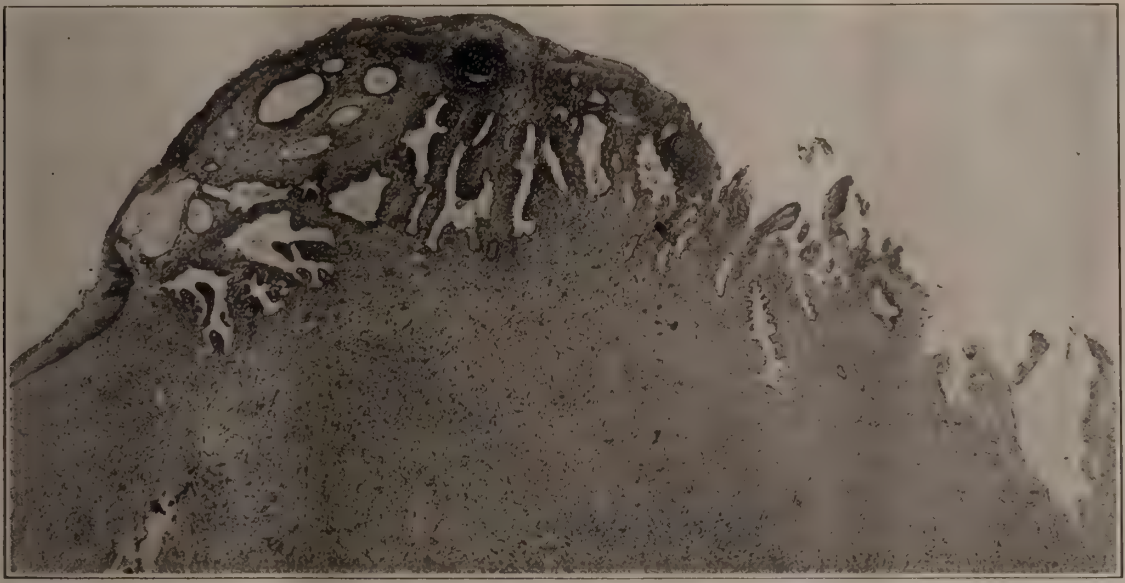

Fig. I.—A low power photomicrograph of a cervix whose right edge shows an ulceration or erosion.

Then why not give every woman a searching examination at 40 years of age with the determination to correct any existing possible cause of cancer?

The writer might report a large series of cases of the same type but one will suffice. It is as follows:

July 12, 1920. Mrs. H. R., age 49 yrs. Married 33 yrs. 11 children; 7 living. No instrumental deliveries. No operations. Menstrual history: Regular, 28 day type, flows 7 days freely. This has always been the type. Two years ago began to bleed whenever she had intercourse. One year ago began to have treatment and improved in that particular. Has had severe itching about the vulva at times. *Diagnosis*: Lacerated cervix and perineum. Part of the cervix—posterior and right—suspicious of malignancy. Operation advised. Frozen section of diseased cervix to be made to determine whether to do amputation or hysterectomy. *Operation,* Aug. 2, 1920:—Emmet amputation of the cervix and author's repair of perineum.

Pathological report by Dr. Ward J. MacNeal: Frozen section: No evidence of malignancy. Gross: one piece of cervix amputated by circular incision 55 x 40 x 22 mm. External os patulous 20 x 15 mm. irregular; on one side the mucous membrane is red and contains several translucent cysts 2-5 mm. in diameter. On section a cyst 12 mm. in diameter is exposed. Microscopic: Squamous cell epithelium, thickened and somewhat irregular. Glands are dilated and cystic; quite marked chronic inflammatory reaction; some hemorrhagic areas. No evidence of malignancy. *Diagnosis*: Erosion and chronic cervixitis.

Examination: February 15, 1921, negative. No erosion of cervix. No more metrorrhagia or bleeding on coitus. To have another examination in six months.

Examination: June 28, 1921: patient fears she is pregnant. No evidence of it. Cervix looks healthy. To come again for examination of cervix. December 10, 1926, patient came for examination. Patient had menopause 4 years ago. Examination shows cervix to be perfectly healthy.

I herewith present some microphotographs of a cervix of this type, which, right or wrong, the writer terms precancerous.

This case is presented in full for the purpose of illustrating what may and should be done in view of our present knowledge of cancer. Such cases are very common but should not be allowed to come to such a danger point. The writer advocates Emmett's amputation in all cases of the type of cervix above described.

The pathological processes which gradually occur make lacerated cervix a much more dangerous source of cancer than simple endocervicitis. Though the latter may become the chronic irritating factor in cancer causation, this has seldom occurred in the writer's experience. The early repair of lacerated cervix is probably one of the most important prophylactic measures against cancer.

(6) In regard to this M. H. Williams, Los Angeles, Cal., in a study of 200 recent deliveries found 86% of lacerations of the cervix and advocated repair from the 7th to the 9th day. Coffey has chosen the 9th day post par tem for a number of years as the time of choice. Hirst recom-

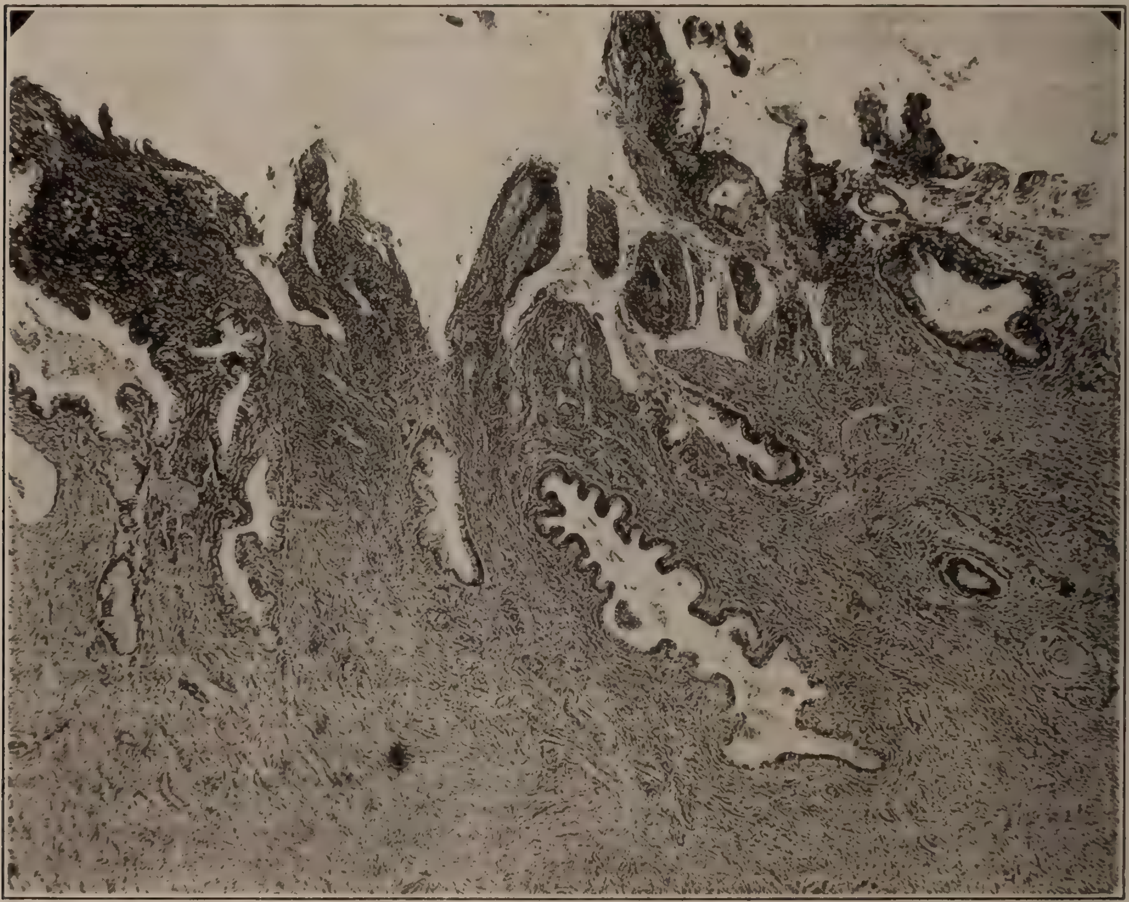

Fig. II.—A high power view of the ulcerated area of Fig. I, showing papillomatous developments and an invasion of glands with epithelium into the tissue.

mends repair on the 6th day. Both are enthusiastic about the ease with which repair can be done and the results.

The writer does not feel that the proper time for repair of the cervix is a settled question but thinks that both cervix and perineum should be repaired within the first three months, and advocates immediate repair of the perineum.

If the perineum has been repaired immediately it would not bear the strain of the speculum used in repairing the cervix on the 9th day.

Endocervicitis: Opinions vary widely as to what extent this condition is a factor in producing cancer. In endocervicitis, uncomplicated by laceration, the writer's observations do not suggest that it is a very important factor. Lynn L. Fulkerson (7) in a clinical study of 1,039 cases of endocervicitis treated at the Cornell Clinic remarks in his summary: "Clinically no evidence was found that endocervicitis is a precancerous lesion." One case of cancer was found.

(8) On the other hand Sturmdorf believes that it is a most important cause of cancer and of various pelvic inflammatory conditions, and has advised his operation of tracheloplasty for its relief.

There is no doubt, however, in the mind of the writer, that endocervicitis alone may bring about a condition (rarely) favoring the development of cancer. Such a case was seen recently where the patient was a nullipara. Notwithstanding treatment for endocervicitis, a papillomatous condition around the os developed which was cauterized. In a short time the same appearance recurred. An amputation was done about a year ago and a recent examination showed a healthy vaginal vault and a cessation of the leucorrhea.

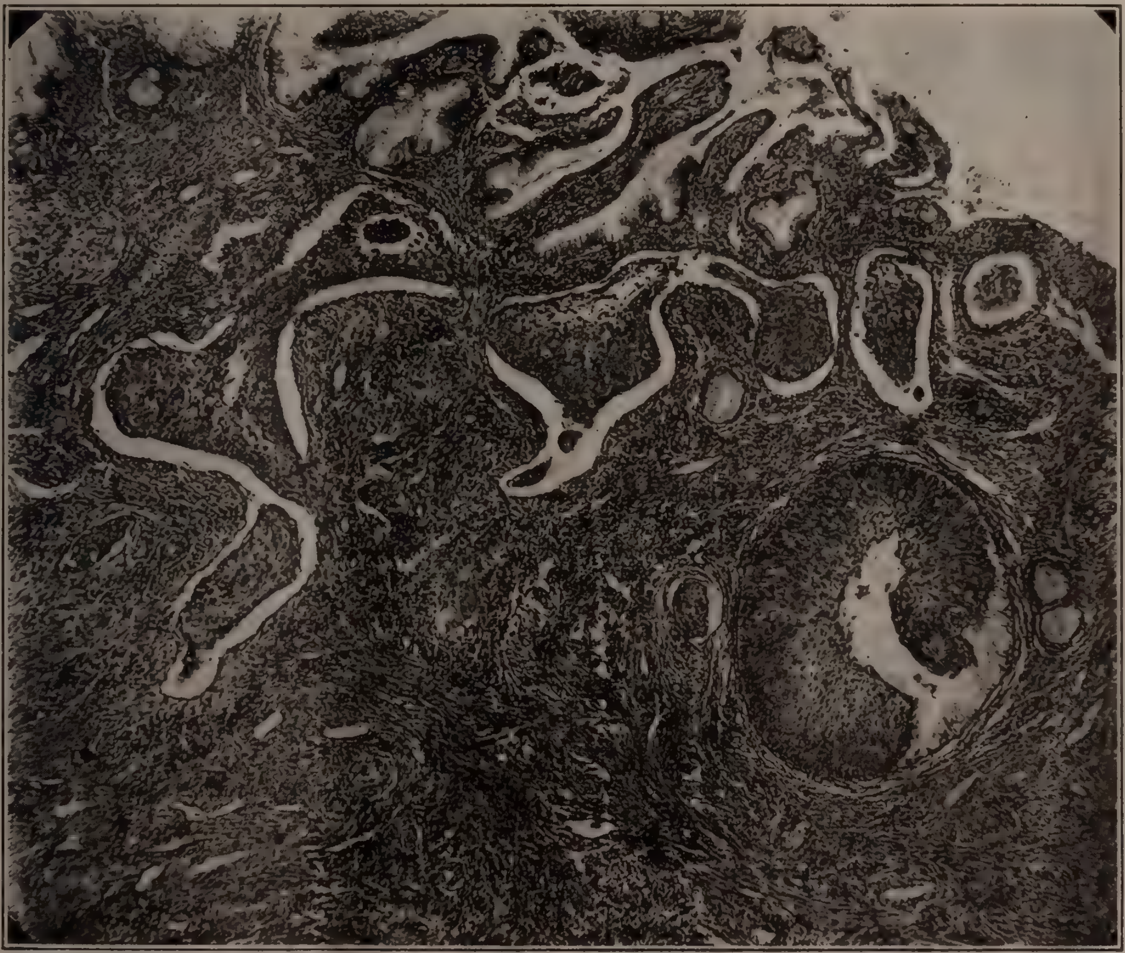

Fig. III.—Papillomatous development in the ulcerated area, and early carcinomatous invasion of the tissue as indicated by the large circle filled with epithelial cells.

Endocervicitis undoubtedly forms a difficult problem and one which up to the present time, offers no uniform method of cure. The chief methods of relief offered are: local antiphlogistic treatment;—packing the cervix up to the internal os with gauze saturated with 20% argyrol, 2% mercurochrome or other antiseptic;—suction instruments with antiseptic spray;—peripheral tissue injections with antiseptics; — a diathermy, electric cautery, and operations—amputation or tracheloplasty.

In regard to the latter, Harvey B. Matthews (9) has presented some interesting statistics in which the results of his tracheloplasty cases with the amputations done for the same reason by another surgeon and shows about the same number of cures.

The writer has had cases where erosions and endocervicitis have disappeared after an operation for retroversion, in which local treatment had failed to cure. Thus indicating that at times disturbed circulation may be the important factor.

Acute gonorrheal endocervicitis will often clear up quickly through packing the cervix with gauze soaked with 30% argyrol solution.

Cervical polypi may be a source of chronic irritation and frequently cause more or less continuous bleeding. They may take the form of fibromyomatous polypi; adenomatous and sarcomatous polypi. In any case they should be removed and subjected to microscopic examination.

The commonest form is so-called mucous polyp, which often shows a microscopic structure closely resembling malignancy.

The writer has removed many of these in the course of the last thirty years and does not recall any case in which malignant growth afterward occurred in the uterus.

Elliott Bishop (10) reporting a case of malignancy in a cervical polyp, states that Dickinson reports 106 recorded cases of cervical polyp in private practice, most of which had histologic examinations. Only one was malignant and this was cured by amputation of the cervix by the Byrne cautery method. Dr. S. H. Geist reports that as a result of routine examination of all cervical polypi at the Mt. Sinai Hospital malignant development is extremely rare. Sarcomatous polyp of the cervix is rare but very fatal. The writer has seen two cases—one in the service of Dr. B. Emmet about 20 years ago, while acting as his assistant. The first operation consisted in removal of the polyp, which quickly recurred; on the second removal the specimen was subjected to histologic examination and found to be sarcoma. This was immediately followed by hysterectomy. The patient died in a few months from recurrence in lungs.

The second case was that of the writer and the sarcomatous nature of the polypus was immediately discovered and hysterectomy performed. This patient also died in a few months from recurrence in the lungs.

Other causes of irritation in the vagina are foreign bodies, pessaries, stems, etc., which no doubt sometimes cause cancer. Another cause of chronic irritation at times is vaginal bands, especially those which are congenital.

CONCLUSIONS

1. Finally the writer would say that it is particularly important that women past thirty-eight years of age should have periodic health examinations, not only to determine their general condition, but in particular the condition of their pelvic organs.
2. That lesions of childbirth should receive early attention and not be allowed to go until the time when the woman is supposed to have finished her childbearing.
3. That those cases which have extensively diseased conditions of the cervix as a result of lacerations and endocervicitis, should have amputation of the cervix, preferably by the Emmet method. The amputation in those who have passed the childbearing period should extend to the internal os, and those who may yet bear children should have one-third of an inch of the cervix below the internal os left.
4. If all women past forty could have their cervices put in healthy condition, perhaps two-thirds of the cases of carcinoma of the cervix could be prevented.
5. Removal of the cervical polypi and relief of chronic irritations of the cervix and vagina should receive prompt and effective attention.

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Pediatrics
Chairman—William H. Donnelly, M.D..............Brooklyn
Vice-Chairman—Carl G. Leo-Wolf, M.D.......Niagara Falls
Secretary—John Aikman, M.D......................Rochester

Eye, Ear, Nose and Throat
Chairman—William A. Krieger, M.D...........Poughkeepsie
Secretary—Harry M. Weed, M.D.......................Buffalo

Public Health, Hygiene and Sanitation
Chairman—Leo F. Schiff, M.D.....................Plattsburg
Secretary—William L. Munson, M.D................Granville

Neurology and Psychiatry
Chairman—Thomas K. Davis, M.D..................New York
Secretary—David C. Wilson, M.D............Clifton Springs

Dermatology
Chairman—Howard Fox, M.D......................New York
Secretary—Earl D. Osborne, M.D....................Buffalo

Industrial Medicine
Chairman—Benjamin J. Slater, M.D................Rochester
Secretary—M. Webster Stofer, M. D.,...............Norwich

For list of officers of County Medical Societies, see this issue, advertising page xxvi.

THE CANCER EXHIBIT

The Cancer Exhibit of the Medical Society of the State of New York, described on page 997 of this Journal, demonstrated that there is but little of the spectacular connected with the disease, but much that calls for patience and for skill of the highest order. The disease is insidious, and no germ or serum or characteristic sign betrays its presence. Only the microscope makes an obvious revelation of its existence in the early stages when it is curable. Yet to the keen physician, guarding the health of confiding patients, there appear signs and symptoms which cause him to redouble his watchfulness, and to apply every possible means for recognizing and expelling the disease in its beginning.

The elementary principles of cancer knowledge are few in number and easy to comprehend when they are compared with those of other diseases—tuberculosis or syphilis, for example; yet the diagnosis and treatment of no other disease calls for more knowledge of detail and broader experience. Fortunately the means of diagnosis and treatment are available to every physician and patient of New York State. The great lesson of the Cancer Exhibit is that general practitioners, when they are confronted with uncertain diagnoses, should always have cancer in mind instead of a possible diagnosis of last resort, and should take prompt steps to secure an early diagnosis and prompt treatment.

A NEW DEPARTMENT

A new department called Medical Ware begins in this issue of the JOURNAL. It will be devoted to wares that are sold especially to physicians. The word wares has an Anglo-Saxon lineage that is both ancient and honorable, and means anything that is a common article of trade. Some articles, such as microscopes and cystoscopes are products of long development and calculations in the higher mathematics; and others, such as insulin and radon seeds, are the crowning results of the most skilled scientific research. But these products are sold to physicians just as other wares are sold; and physicians often use them while giving little thought to their origin, whether it be the inventive mind of a mill hand, or the result of long research by the highly trained postgraduate physicist.

A modern doctor could not practice medicine if he could not obtain every variety of medical ware in the open market; and manufacturers could not afford to develop the means of producing and distributing standardized products if the physicians did not buy or prescribe their wares. The new department is designed to bring about a mutual understanding between physicians and manufacturers. Physicians are always interested in the processes by which medical wares are made, and in the methods by which their standards are determined and maintained.

Manufacturers have shown a deep interest in the new department, and those who have been approached have given the editors every possible facility for observing the preparation of their products, and ascertaining the scientific principles of their manufacture and use.

The first article of the series appears on p. 1045 and is on radon seeds, which contain exact doses of the radiations or emanations of radium. The availability of radon seeds will doubtless be a great stimulus to the early diagnosis and treat- of cancer, for physicians can now feel that radium is within the reach of every patient. Moreover, when patients come to know more about the availability of radium treatment, they will be the more ready to seek an early diagnosis and treatment.

THE CATTARAUGUS COUNTY HEALTH DEPARTMENT

The Supervisors of Cattaraugus County established the only County Health Department in New York State five years ago under an agreement that the Trustees of the Milbank Memorial Fund should contribute the greater part of the cost of the Department, and that the State Charities Aid Association should have a dominant part in directing its activities. The Department was conducted along the lines of the modern Health Department of a city with the stated purpose of demonstrating a working plan which other counties might follow in establishing county health departments.

The Department was divided into ten bureaus, as follows:

1. General Administration.
2. Records and Vital Statistics.
3. Public Health Nursing.
4. Tuberculosis.
5. Laboratories and Communicable Diseases.
6. Maternity, Infancy, and Child Hygiene.
7. Health Education.
8. Nutrition.
9. Venereal Diseases.
10. Sanitary Inspection.

The County Health Department also supervised the examination of school children in cooperation with the school physicians appointed by the school districts. The supervisor of the work is paid by the Milbank Fund.

Cattaraugus County also has a County Tuberculosis Hospital which is operated by its own special board and under an appropriation which is separate from that of the County Department of Health. The appropriation last year was $40,000.00 for maintenance and $4,000.00 for repairs.

Cattaraugus also continued the system of a local health officer in each city, village, and township, according to the methods of conducting public health work in the other counties of New York State. There were 25 local health officers in Cattaraugus County and these all continued to function, and were important factors in the public health work in the County. The reports of the accomplishments of the Cattaraugus County Health Department have usually included the results attained by the local health officers who still bear the greater part of the burden of communicable disease control and sanitary inspection.

The cost of the Cattaraugus County Health

Department for the year 1926 is stated in the Annual Report of the Board of Supervisors as follows:

"Your Board last year appropriated $56,060—one-half of which, or $28,030—was refunded to the County and the State. Therefore, the net cost of the Board of Health to the County was $28,030. Your appropriation of $28,030—brought to the County not only an equal sum from the State, but secured for Cattaraugus County from the Milbank Memorial Fund the sum of $97,000—which was allocated to the various agencies for health work in the County."

This report indicates that the County Health Department cost $153,060—during the year 1926. No figures are available regarding the cost of the local boards of health.

The sum of $44,000 appropriated to the Tuberculosis Hospital should be added to the net cost of the County Health Department so that $72,000 of public funds were paid for the public health work conducted by the county.

The five-year agreement of Cattaraugus County with the Milbank Memorial Fund and the State Charities Aid Association expires on December 31, 1927, and there is much discussion in regard to its renewal. The Cattaraugus County Medical Society considered the general proposition of a County Health Department at a special meeting held on August 4, 1927, and a report of its action is printed on page 1041 of this JOURNAL. A careful reading of that report shows that the physicians of Cattaraugus County are in favor of broad activities in public health, and that specifically they favor the following activities:

1. A County Health Department to be conducted entirely by the people of the county.

2. A rearrangement of the bureaus, and especially the continuation of the laboratory, and the tuberculosis and venereal disease work by the county.

3. The continuation of the system of local boards of health and health officers.

4. A greater participation of the general practitioners in the practice of public health.

The plan of the physicians of Cattaraugus County does not differ greatly from that proposed by other progressive rural counties—for example, that of Suffolk County, printed on page 563 of the May 15th issue of this JOURNAL. The most hopeful element in public health work in Cattaraugus County is the statement in the official Bulletin of the County Medical Society that "The Committee on Public Health and Public Relations is at present hard at work on a comprehensive program of sound and economical public health work for this County." Doubtless it will work out a satisfactory program.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Cancer of the Breast.—The fundamental principles of the surgical treatment of cancer were well understood two decades ago; and at that time a wealth of experience over a period of years had been accumulated to demonstrate the efficiency of surgery when a new growth was removed early and completely.

The results of operation for cancer of the breast were discussed editorially in this JOURNAL for September 1907, as follows:

"The treatment of cancer of the breast has been brought to a position of much hopefulness and satisfaction, notwithstanding the many discouragements through which it has passed. Surgeons are agreed as to the therapy, and all wise physicians cooperate with them. The results now secured in this, once nearly hopeless disease, stand as one of the great triumphs of modern medicine. The fatalities are among those who have deferred too long, but even for these surgery attempts something. In the discussion upon this subject before the American Surgical Association at its last meeting, it was shown that the duration of the disease exerts much influence on prognosis, that extensive operations with wide removal of skin gave the greatest freedom from local recurrence, and that incomplete operations in early cases yield better results than extensive operations in cases which are well advanced.

"The improved results secured in the treatment of this disease have not been so much the triumph of antiseptic surgery, as has been the case in so many diseases, but rather in the greater extent and completeness of the operation as now practiced. Surgeons now report eighty per cent of cases operated upon remaining cured beyond the three-year limit. The technic of the treatment of this disease has reached a high state of perfection; further hope in reducing the mortality depends upon the education of the general practitioner and of the public to the necessity of early operation, and the elimination of those delusive practices which can be called by no more genteel name than the criminal puttering with cancer of the breast."

MEDICAL PROGRESS

Malignant Diphtheria.—Sanitary Councillor Canon of Berlin discusses in the *Deutsche medizinische Wochenschrift,* July 8, 1927, under the title "Septic Diphtheria," a type of the disease in which the mortality is high and serum inactive; this is regarded by some as hypertoxic while others look upon it as a mixed diphtheria-streptococcus infection. He recalls an episode of this kind in 1892-3 in which in the beginning half of the children died and medicine seemed powerless. It was just at this juncture that the Behring serum received its first tryout (in the Moabit Hospital). The combined use of serum and tracheotomy appeared to produce some improvement in the mortality, but control figures showed that the virulence was already waning. The first use of the serum was in absurdly small doses of course. We seem now, Canon says, on the verge of another of these waves of highly virulent diphtheria, and several physicians after exhibition of large serum doses appear to be discouraged with the result; but blood tests made now, like those in 1892-3, show the presence of virulent hemolytic streptococci which, of course, cannot be antagonized by the diphtheria serum. The children really perish of streptococcic sepsis and not from the action of the diphtheria toxin. For the treatment of these cases convalescent serum should be our sheet anchor, and if this is not obtainable a polyvalent streptococcus serum, in the author's opinion, is not indicated but rather a vaccine made from cultures obtained from the throat of the patient. In the meantime a diphtheria-streptococcus antiserum, calculated to meet the situation should be prepared. There is no allusion to a trial of scarlet fever serum or of any other univalent streptococcus serum although we know that different strains of these hemolytic cocci may sometimes give positive results even if theoretically not indicated.

According to H. Finkelstein and E. Königsberger of the Berlin Children's Hospital, writing in the same journal for July 15, there is nothing new about the type for it is our familiar mixed infection with streptococci which was formerly pronounced to be an illusion, but quite recently has been rehabilitated by the discovery at autopsy of hemolytic streptococci in the organs. With this changed viewpoint there has been a movement to treat these cases with streptococcus serum and in the form of a special antitoxin, for devising which Meyer and Joseph claim the credit, they having been at work on this idea for about 5 years. The authors have used this preparation along with ordinary diphtheria antitoxin in nine selected cases treated in the past 6 months. Nine others received only ordinary diphtheria serum. In the series treated with both sera, seven of the nine recovered, while with the diphtheria serum alone there was but one recovery. All of the cases in this test were of the gravest type with much fetor and cervical swelling, signs of renal implication and, in a minority, acute and profuse hemorrhages. In the successful series the serum was not applied until the second week, while in the unfavorable one the antitoxin was injected in the first week. Ordinarily under the present epidemic conditions these patients should all have succumbed.

Natural Immunity to Infection as Observed in Natives of the Tropics.—Writing in the *Southern Medical Journal,* July, 1927 (xx, 7), R. W. Mendelson argues that natural immunity to infection is developed by persons living in a highly infected environment under natural conditions. The tropical native has a far richer intestinal flora than has one living under modern sanitary conditions. This has so increased his resistance that he is able successfully to overcome a tendency to acute appendicitis, and in surgical operations he survives infection which would ordinarily result fatally. A ten years' sojourn in Bangkok has enabled the author to compare the typhoid fever ratio of the first three years of this period with the last three years; this he found to be as 1 to 10, and the same applied to dysenteries and cholera. The city of Bangkok is evenly divided by a large river. The east side of the city has been supplied with pure water since October, 1914, while the west side has always had polluted water. In the 1919 epidemic of cholera, though the mortality per thousand was higher on the west side, the chances of infection being greater, the case mortality was actually lower. The explanation is that the people who were provided with pure water gradually lost their natural immunity to pathological intestinal bacteria. In regard to typhoid infection, an endeavor was made to determine to what extent the native Siamese harbored immune bodies in the blood. To this end the author examined some six hundred patients in a Bangkok institution, with the finding that 15.5 per cent of these subjects possessed agglutinins in their blood. In this institution about 60 per cent of the inmates are permanent and have lived under very good sanitary conditions for years. Practically 99 per cent of the positive reactions were in new patients, indicating that the older inmates had lost their one-time natural immunity to typhoid. The author concludes that clinical experience in the tropics indicates that the newborn inherits sufficient general-infection immunity to protect it until more specific immunity is developed as the result of a more or less continuous vaccination with infected food and water. He suggests that when instituting sanitary reforms in a virgin field, both food and water should come under control at the same time; otherwise there is danger of increasing the susceptibility to intestinal infection as a result of decreasing natural immunity. Although a material degree of protection is acquired as a result of living in a highly infected environment under natural conditions, degenerative diseases develop earlier. They result from overtaxation of the bodily tissues in developing and maintaining general-infection immunity.

Amebiasis.—J. H. Musser, writing in the *American Journal of the Medical Sciences,* July, 1927 (clxxiv, 1), analyzes a series of 51 cases of amebiasis occurring in the Charity Hospital in New Orleans during the past year. Among these cases the greatest incidence occurred in the age period from 31 to 40 years. The disease is very rare in patients under 16 and over 60, and is a clinical curiosity in a child. Of the 51 patients 46 were males. The majority of the patients apparently contracted the disease in Louisiana. They complained quite regularly of diarrhea lasting from three to twelve years, in one case thirty years. Proctoscopic examination was carried out in all cases, and revealed the usual typical picture of proctitis, thus showing the relation of dysentery to ulcerated rectum. Various types of treatment were employed — yatren, stovarsol, emetine, and ipecac alone and in combination with stovarsol. Yatren was most successful and was employed in 24 cases. The author follows the classification of Dobell and Low, which divides the disease into four clinical groups: carrier, general amebiasis, amebic diarrhea, and amebic dysentery. Carriers without symptoms are more numerous than individuals having diarrhea or dysentery, and as they are more or less continuously passing cysts they constitute the main source of infection. In general amebiasis there may for a long time be no definite symptoms, merely easy fatiguability, absence of a feeling of well-being, and a consciousness of the intestines. There is often arthritis and sometimes definite fixation of terminal phalangeal joints without pain. Kofoid and his coworkers have suggested that most cases of arthritis are due to amebiasis. When a patient with general amebiasis develops well marked intestinal symptoms he passes into the amebic diarrhea group, and at this stage liver abscess often develops. The author states that transmission of the disease by flies is supposed to be rare, but viable amebæ have been found on the fly and in its intestinal tract. This insect may, therefore, be a more common vector than has generally been thought. Amebiasis is undoubtedly common in the South and, also in some of its manifestations at least, is more frequent in the North than is generally recognized. The infestation is difficult of diagnosis; its detection requires a competent protozoologist.

Angina Pectoris.—Chaille Jamison, after discussing the etiology and classification of cases of angina pectoris, emphasizes the importance of differentiating the various types of angina, and particularly the angina of coronary thrombosis, for the reason that the same treatment is not applicable to all forms of the affection. A grave mistake has been made in teaching that angina is a disease in which treatment is of no avail. As is well known, amyl nitrite by inhalation, or a nitroglycerin tablet under the tongue or hypodermically, will relieve attacks, and often thereby save life. The patient known to have angina pectoris should never be without one of these remedies, and should use them at the first intimation of trouble. The angina of effort, in which there is evidence of exhaustion of the heart muscle, should be treated by at least four to six weeks' rest in bed, the administration of potassium iodide in as full dosage as the patient will tolerate, the eradication of foci of infection, and the elimination of tobacco. After the initial rest period the patient should be permitted to be up only a few hours a day, business should be pursued only during the morning hours, and an hour or two in the afternoon should be given to complete rest. When there is general arteriosclerosis, with hypertension and hypertrophy of the heart, in addition to the measures above advocated, a course of Nauheim baths, which can readily be given at home, is of distinct value; of even greater value when hypertension is marked is the twenty-minute hot bath followed by a rest of an hour or two. In the course of time patients of this type may be allowed limited exercise of a mild nature (walking or golf on level ground). Whiskey well diluted or light wine may be allowed. Where coronary disease is present (and it is present in the majority of cases) digitalis seems to do more harm than good. If there is evidence of accompanying failure of the right heart, then digitalis probably should be used, though the pain of angina usually disappears when frank heart failure sets in. Where syphilis is proved, antiluetic treatment should, of course, be instituted, but never intravenous medication. The treatment of the angina of decubitus does not materially differ from that of the angina of effort, except that greater diligence is necessary. Coronary thrombosis, during the immediate attack, should be treated by large doses of morphine by needle. When the attack has subsided, bed rest must be absolute, and an ice-cap must be applied continuously to the pericardium. No definite rules for the use of digitalis can be formulated. The writer questions whether sympathectomy may not do more harm than good, as the pain is a protective process, warning the patient that he must rest.

Twilight Sleep in Major Surgery with Scopolamine-Morphine and Scopolamine-Ephedrine.—F. Lubitz of Graz refers to cases especially of gastric ulcer and cancer in which, owing to some complication, general narcosis is contraindicated. Originally he employed the scopolamine-morphine combination, giving a first injection of both alkaloids two hours before operation, then a quarter hour later a second one of morphine alone followed in an hour by a third one of scopolamine alone. There was no fixed pattern, the aim being to individualize the method and dose for each case and give each in divided dose. The total amount given per operation was 3-100 gram of morphine and 1-1000 gram of scopolamine (roughly half a grain of morphine and 1-65 grain of scopolamine). Tested in 15 cases the method failed in 5 and presumably general narcosis was substituted although the author is silent on this point. Last December Kreitmair recommended a combination of scopolamine with ephedrine, an alkaloid obtained from *Ephedra vulgaris* which is closely allied to adrenalin. The claim was that the ephedrine virtually detoxicated scopolamine so that it could be given in larger doses with a superior narcotic effect. The author has now made trial of this association in 14 cases. From 20 to 30 decigrams of scopolamine are divided into ampoules with the addition of enough ephedrine hydrochloride to give each ampoule 1 mgm. of scopolamine and 2.5 mgm. of ephedrine, but the dose is divided as before into two to three separate injections, preceded also by two injections of morphine. The smallest total amount of scopolamine required was about 1-40 grain but the narcosis was complete and there were none of the drawbacks of ether narcosis such as vomiting and bronchitis. Ephedrine has been made by synthesis, but the author has tested only the natural product.—*Münchener medizinische Wochenschrift,* June 16, 1927.

Typical Laboratory Infection with Asiatic Cholera.—Prof. A. Sata of Osaka speaks of the epidemic of cholera which reached some of the Japanese cities in 1925, having been brought in from Shanghai. In the following year there was no true epidemic but a few scattered cases occurred, none of them in Osaka. In December, 1926, Dr. Matsusaki of Osaka began some experiments with cultures of cholera vibrios and other pathogenic organisms. In January, after having worked incessantly day and night and becoming run down, he suddenly developed a persistent diarrhea, without griping but with vomiting and at once suspected an artificial infection with cholera. Dr. Kumagai, an authority, confirmed this diagnosis—a case of medium severity. The patient was isolated in the city institute for infectious diseases and through the incessant diarrhea and vomiting was brought very near death. He was treated with numerous intravenous injections of saline solution and glucose, with digalen and camphor, and passed the danger point on the third day, convalescing slowly. The cultures had been growing for a year and a half and the experiments had consisted apparently of pencilling them thinly on the natural skin, upon which they grew luxuriantly. Every precaution in use was taken to prevent contagion by the stomach and lungs. In the skin experiment it was decided that the vibrios could penetrate the intact skin and reach the lymph-nodes and blood, but it is not clear from the brief communication whether the patient and his colleagues made these experiments on themselves or merely on laboratory animals. This conclusion had evidently been reached as a result of experiment before the accidental inoculation of the patient. The same positive results were obtained with the typhoid bacillus and the dysentery bacillus. — *Deutsche medizinische Wochenschrift,* June 17, 1927.

The False Leprosy (Punedos) of Guatemala.—R. Robles, a physician of Guatemala, gives a description of a virtually new and unplaced disease which occurs among the aborigines and whites of his country and which has for many years been confused with true leprosy. It is incurable, papillomatous, and tends to appear in successive outbreaks; there is also a foul odor about the patient which in any case would lead to his isolation or segregation. Nothing is known of the cause, but the malady appears in childhood in those heretofore healthy, the primary lesions showing in the feet as if some sort of insect had conveyed the malady, yet nothing like a bite or abrasion has ever been recognized. The early lesions are erythematous, circumscribed, red or livid in hue, and tender to touch and are first seen in the region of the instep, going higher or lower at times but always on the anterior surface. At the same time, the patient shows signs of a general infection, has general malaise, fever, prostration, headache, and joint pains, a picture not unlike that of grippe, with the alternative of a malarial infection. The attack passes off and some months later returns with more spots and an edema of the lower extremities which becomes in time chronic. The affected skin chaps and now papillomatous lesions are superposed. However the attack is self limited and another but shorter period of comparative health sets in. After several of these outbreaks the papillomatous feature, which has limited itself largely to the toes, becomes a source of deformity and disability, the digits being in time completely effaced. Other portions of the foot may be involved but thus far no lesions outside the feet have been noted, with the exception of secondary inguinal adenopathy. Extensive studies, some of which have been made by Noguchi, have failed to reveal any pathogenic agent.—*Bulletin de l'Académie de Médecine de Paris,* June 7, 1927.

Forensic Cinematography.—Professor H. Matti of Berne refers first to the approved applications of cinematography to medicine and proposes to extend these in connection with damage suits, with particular reference to limitation of natural motion. He has for some years been especially interested in the alleged crippling, following spondylitis, which includes so-called painful inhibition. He has had numerous motion pictures made of these cases and has noted a marked discrepancy between the actual movements and the painful sensations of which the patients complained. It is often desirable for the patient to be coached psychologically, in order that he may, if sincere, cooperate with the examiner; and often he takes the liveliest interest in the procedure. It may be shown beautifully that an active muscular fixation of the spine may take place in simulators, aggravators, and neurotics. Cinematograms of patients with actual rigidity of the spine which results from severe organic alterations are necessary for the control of the preceding. It is of the greatest importance to take follow-up pictures of patients and compare them with the originals. By taking several series of pictures it soon becomes apparent that simulation cannot be consistently kept up, whereas in an organic case constancy is seen. The author does not set himself against the ordinary methods of the neurologist and makes it a rule to obtain testimony from both the neurologist and the orthopedist as a control of his pictorial method of exploration. It is of course of great importance for therapeutic progress to follow up these cases pictorially but the author is interested here only in the forensic aspects of the procedure.—*Schweizerische medizinische Wochenschrift,* June 4, 1927.

Clinical and Therapeutic Aspects of Influenza from 1889 to 1927; The Value of Salicin in Treatment.—E. B. Turner, writing in the *British Medical Journal,* July 16, ii, 3471, records his experience in the treatment of some 3,600 to 3,900 cases of influenza in the various epidemics, beginning with that of 1889. In combating this disease he has found salicin a most valuable medicament. During the severe epidemics of December, 1918, and March, 1919, he treated over 700 cases with salicin, and in the entire number had no complications, no bronchitis, no pneumonia, and not a single death. The essentials of the salicin treatment consist in giving the drug as soon as there is a definite rise of temperature and keeping the patient warm in bed on light simple food. Twenty grains of salicin are given every hour for the first twelve hours, then 20 grains every two hours for the next twelve hours; in many cases this is sufficient, but if not, the dose of 20 grains may be repeated from four to eight times a day, as may be necessary. For young persons the dose is one grain for every year plus an extra grain. Large and frequently repeated doses are necessary because the drug is eliminated with extreme rapidity. Turner, in his thirty-eight years' experience found that no infection spread from anyone who commenced taking salicin as soon after the onset of the illness as it was possible to give it. The sooner the treatment is begun the quicker do the symptoms subside. The more acute the symptoms and the higher the temperature the more quickly does it yield to treatment. When the temperature has dropped, before allowing the patient out of bed 60 drops of sal volatile are administered three or four times a day; if a tonic is required strychnine and nitroglycerin are given. Salicin not only shortens the duration of the disease, but abolishes the numerous sequelæ. The drug is not so rapidly effective in cases in which there is a treble or quadruple infection. Many cases of catarrh and fever yield to this treatment, though it is not necessary to give the large doses of salicin so often. In the prevention of influenza, Turner has found the army vaccine of mixed bacilli more effectual than that made from the supposed microbe of influenza.

The Pfeiffer Bacillus and the Pseudo-Pfeiffer Bacillus.—B. Trambusti of Genoa has recently made a special study of these organisms as such and apparently without any bearing on the allied question of the etiology of influenza. The true Pfeiffer organism is especially toxigenic while the other is characterized especially by the production of aggressins. The two agree well in their morphology and the mechanism of their pathogenic activities is similar. The difference between the two which was first mentioned is related to differences in leucotropism, which is marked in the true organism and nearly absent in the false. This behavior of the former is noted in all the highly toxic strains examined and likewise in the less virulent. The leucocytes are able to destroy the true organism in a very short time—a few hours after its introduction into the animal economy, with production of certain endotoxins which are rapidly eliminated. —*Lo Sperimentale,* June 10, 1927.

LEGAL

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THE PREVENTION OF OPHTHALMIA NEONATORUM

It is both the moral and the legal duty of the physician to use for the benefit of his patient the accepted results of scientific medical study. Not only must he possess "that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices, and which is ordinarily regarded by those conversant with the employment as necessary to qualify him to engage in the business of practicing medicine and surgery,"—not only is it his duty to use reasonable care and diligence in the exercise of his skill and the application of his learning to accomplish the purpose for which he was employed, but as the Court of Appeals has declared: "He is bound to keep abreast of the times, and a departure from approved methods in general use, if it injures the patient, will render him liable, however good his intentions may have been."

There are few fields of medical practice in which the necessity of keeping abreast of the times is more important than that of obstetrics.

For many years it has been the recognized practice to instill in the eyes of the new-born child immediately after delivery a one per cent solution of nitrate of silver or an equally effective agent in order to prevent the development of ophthalmia neonatorum.

In his authoritative work on the *Practice of Obstetrics,* J. Clifton Edgar declares that "As soon as the child is born its face must be carefully washed, special attention being given to the eyes, and even when infection is not suspected one or two drops of a 1 per cent silver-nitrate solution should be dropped into each conjunctival sac. This may be washed away in a moment or two with salt solution if desired. It has now become with most obstetricians in maternity service a matter of routine practice to use this 1 per cent solution in the eyes of all infants, and since the method was introduced the number of cases of ophthalmia neonatorum has decreased enormously. As an illustration, we may cite the experience of Credé, who suggested the method. At his Lying-in-Asylum, at Leipsic, before the use of silver nitrate, this form of ophthalmia occurred in 10.8 per cent of all infants; after the treatment was systematically carried out the percentage fell to 0.1 or 0.2 per cent. Other similar experiences have been reported. The methods of procedure will almost invariably cure or protect the infant from this infection, but we have the further duty of protecting nurses, relatives and physicians. It is hardly necessary to point out the extremely infectious character of the discharge from the eyes of a patient with gonorrheal opththalmia or to emphasize the importance of avoiding the chance of infecting a clean eye."

So universally recognized did the use of this nitrate of silver solution become that on August 10, 1922, there was added to the Sanitary Code of the City of New York Section 201, which provides:

"Precautions to be observed by physicians, nurses, midwives and other attendants for the prevention of ophthalmia neonatorum in the eyes of all new-born children. It shall be the duty of every physician, nurse, midwife or other person in attendance on a confinement case, to instill in the eyes of the new-born child, immediately after delivery, and before the expulsion of the afterbirth, a one (1%) per cent solution of nitrate of silver or an equally effective agent in order to prevent the development of ophthalmia neonatorum in the eyes of all new-born children."

Further emphasizing the importance of this procedure, the Department of Health of the City of New York prepared *"Instructions to Midwives for the Care of the Eyes of New-Born Babies"* and arranged for the preparation and distribution of capsules containing a silver nitrate solution for use in obsetrical cases. In these instructions the Board of Health declared:

"As soon as the baby is born, carefully clean the eyelids with water that has been boiled, using a fresh piece of soft linen cloth or clean absorbent cotton for each eye. Wipe the lids, from the nose outward, without opening the lids. Then the eyelids must be separated and three drops of a 1 per cent solution of silver nitrate dropped into each eye.

"The enclosed capsules each contain a sufficient quantity of the 1 per cent solution of silver nitrate for each case. . . .

"Keep the capsules in a warm room for a while before using. If they are very cold they may break when squeezed."

Outside of the City of New York the State Department of Health has jurisdiction. The State Department established a Sanitary Code by which the necessity for the use of nitrate of silver is likewise recognized. By Regulation 10 of Chapter 2 of that Code, added on February 7, 1922, it is provided:

"Precautions to be observed for the prevention of ophthalmia neonatorum. It shall be the duty of the attending physician, midwife, nurse or other person in attendance on a confinement case to use at the time of the delivery prophylactic measures such as the instillation into both eyes of one per cent solution of nitrate of silver, or an equally efficient agent, to prevent ophthalmia neonatorum or the development of sore eyes in the infant due to infection at birth."

Under the authority of this regulation, the State Department of Health, through its Division of Laboratories, distributes a one per cent nitrate of silver solution, enough of the same being contained in a wax ampule, which together with printed directions for the use of the same are enclosed in a small wooden box. The printed instructions bear in part the following: "1 per cent nitrate of silver solution for the care of the eyes of new born babies" and then follow directions for its use.

In a leaflet issued by the Division of Child Hygiene of the State Department of Health on the care of new born babies, the following instructions with respect to the care of the eyes are contained:

"The eyes should be carefully cleansed with a saturated solution of boric acid, and into each eye the physician or nurse should put two or three drops of a one per cent solution of nitrate of silver to prevent sore eyes and possible blindness."

In addition to all these authorities we cite from Dr. Hobart A. Hare's work on *Practical Therapeutics* (18th ed.) where speaking of the use of nitrate of silver he says at p. 393:

"As a prophylactic for ophthalmia neonatorum it is invaluable, and in most cases a 1 per cent solution is adequate. If infection is present, 2 per cent should be used."

So universally recognized has the use of silver of nitrate solution or other equally effective agent in the care of infants' eyes become that it is obviously with no thought of presenting anything new to the profession that this article is written, but rather to call attention to the principle of law that requires the physician "to keep abreast of the times, and a departure from approved methods in general use, if it injures the patient, will render him liable, however good his intentions may have been."

STILL BIRTH CLAIMED DUE TO QUININE AND MORPHINE

In an action against a physician the complaint charged that he was engaged in August to attend the plaintiff and to take care of her during the period of her pregnancy and deliver her of her then unborn child; that in October, immediately preceding the plaintiff's confinement the defendant did not use reasonable care or skill in the first stages of labor but unskillfully and negligently during that period administered 20 grains of quinine to the plaintiff and then permitted her to remain unattended for a period of approximately eight hours; that he further negligently administered a hypodermic of morphine when labor pains were in progress and again left the patient unattended; and that he further failed and neglected to administer a proper cleansing of the patient after her delivery; that by reason of these acts of alleged negligence upon the part of the defendant physician it is claimed that the plaintiff's child was born dead and that she suffered bodily and mental pain and anguish and also incurred expenses for medical and surgical care and medicines. Plaintiff asked for $25,000.00 damages.

The plaintiff had been a patient of the defendant for several years, and during her period of pregnancy had been under the defendant's care, being given the necessary examinations and advice during the prenatal period.

On October 16th, at about 2 A. M., the patient by telephone advised the defendant that she was having pains. He advised her to enter the hospital where she had made reservations. At about 9:30 A. M. he visited her at the hospital. The pains were weak and infrequent and an examination revealed a live foetus. There was no engagement of the head and the cervix was but one finger dilated. He saw her again at about 4 P. M. on the same day at which time the pains were stronger and more regular. At this time he ordered a nurse to administer 20 grains of quinine and one ounce of castor oil. Examination made at this time disclosed that the head was engaged but the cervix was still only one finger dilated. He saw her again at 9 P. M. of the same day; her pains were stronger but not severe, and there being no unfavorable reaction from the previous administration of quinine, twenty grains more were ordered administered. At midnight of October 16th she was having regular severe pains and was in active labor; examination disclosed two fingers dilation.

The defendant had returned to his office, and at about 2 A. M., October 17th, the supervising nurse, over the telephone, advised that the patient was having strong, regular pains and that the cervix was dilated about 2½ fingers. The defendant then ordered morphine sulphate grains ¼, atropine sulphate grains 1/150 if pains became unbearable, and told the nurse to call him again within a few hours. At 4 A. M., October 17th, the nurse telephoned that the patient's pains were strong and very regular, that she was about three fingers dilated and was complaining on account of her pain. At 6 A. M. of that morning the defendant was advised that the patient was ready for delivery and was having very severe pains. The physician reached the hospital at about 6:20 A. M. and on examination found that the patient was from 3½ to 4 fingers dilated, fetal heart sounds were heard and the patient's condition was good. She was, however, complaining of the pains and requesting an anaesthesia. Under the defendant's direction the patient was given a whiff of ether to relieve the severity of the pains, and an anaesthetist was called. The anaesthetist arrived at about 7 A. M. At that time the cervix was completely dilated and the fetal heart sounds were heard by both the defendant and the anaesthetist. The head was low down. Gas oxygen was administered and patient was also given 3 m. of pituitrin hypodermically. At 7:20 A. M. she gave birth to a still born female. The cord was pulseless and artificial respiration was resorted to. On squeezing the chest and lungs during the artificial respiration a large amount of yellow and brown fluid was expelled from the infant. The defendant and the anaesthetist continued to work over the baby for about two hours without being successful. The defendant ascribed the cause of the death of the baby to premature respiration (fetal) while in uterus, causing inspiration of amniotic fluid and asphyxia.

The plaintiff remained at the hospital for about ten days and made an uneventful recovery. During her stay at the hospital she had accepted the loss of her baby philosophically and did not blame the defendant. After she had been home two days the defendant visited her, at which time she became abusive and charged the defendant with being responsible for the death of the child. When the defendant called at the patient's home a few days later he was told that the patient was not in. This was the last that he had seen or heard of the patient until this action was instituted against him. She refused to pay defendant for his services and when he instituted an action to collect for the same he was met with a malpractice action against him. This action was never pressed for trial by the plaintiff and was eventually discontinued, terminating the matter favorably to the defendant.

UTERINE BLEEDING—CLAIMED ABORTION

In this action it was charged that the defendant physician had been engaged on the 15th of December to attend the plaintiff and that he treated her from time to time until the 17th of the following March; that he failed to exercise the proper care and skill in his treatment and that by reason of his improper treatment the patient's health and constitution were injured and she was obliged to expend large sums of money in an attempt to be cured of the injuries caused by the physician's negligence.

About the beginning of November the patient had called at the physician's office complaining of pains in the pelvic region and upon examination she was found to be suffering from an inflamed cervix. At this time he painted the inflamed area with a solution of silver nitrate and packed her with gauze. When she returned on the following day the physician found that the packing had been removed and that she had had uterine bleeding. Another physician was then called in who took charge of the patient and packed her with sterile gauze. She subsequently returned to the office of the first physician who says that the patient stated to him that she was pregnant and requested that he abort her which he refused to do and refused to either attend or treat her. That he saw or heard nothing further of the patient until this action was instituted against him.

The physician who had been called in consultation about six months later was called to the plaintiff's home and upon his arrival he found her in bed and she exhibited to him a dead fetus of about five months and asked that this physician attend and treat her. This physician likewise refused to attend and treat the plaintff or to give her a death certificate of the fetus. The next he heard from the patient was the institution of a suit against him.

The plaintiff failing to prosecute the action, on motion of the defendants the same was dismissed for lack of prosecution.

NEWS NOTES

THE CATTARAUGUS COUNTY MEDICAL SOCIETY

A special meeting of the Cattaraugus County Medical Society was held on August 4, 1927, in in the Olean House, Olean, N. Y., to consider the report of the Committee on Public Health and Public Relations of the Cattaraugus County Medical Society. This report was as follows:

To the Cattaraugus County Medical Society:

Your Committee on Public Health on Public Relations has requested your Secretary to call this special meeting for the purpose of considering public health in this County, a matter which is of vital importance to the physicians and the citizens in general.

For the past four and one-half years there has existed in Cattaraugus County a county Board of Health, created by the Board of Supervisors to make possible participation by the county in the Rural Health Demonstration of the Milbank Memorial Fund. The Milbank Memorial Fund, and its agent, the State Charities Aid Association, following the creation of the county Board of Health, entered into some form of agreement with the county to supply, for a period of five years, part of the funds necessary for the activities which the Board of Health would undertake. It also offered its services in the determination of the various activities, and the amounts to be expended for each activity.

The period of five years, for which this agreement runs, expires at the end of this year. Judging from correspondence received from the Milbank Memorial Fund by physicians and others in the county, it has become apparent that the Milbank Fund is quite desirous of extending the period of its demonstration in this county. Within the past two weeks the newspapers have reported an action by the City Council of Salamanca, endorsing the Demonstration and requesting its continuation. We are informed that the Executive Committee of the County Tuberculosis and Public Health Association has before it at this time a similar proposal.

As yet the Medical Society itself has not been approached, nor has its approval as an organization been solicited.

However, your Committee has considered the advisability of determining the feeling of the physicians of the county, and more particularly the members of the County Medical Society, relative to an endorsement by the Medical Society of the continuation of the Demonstration.

The essential relationship of the practicing physician to public health, and his particular fitness to judge its benefits, its efficiency, and its worth, make it important that his opinion in regard to the particular plan of public health work in existence in this county, be made available at this time, when a consideration is being given to its continuation and extension.

We have felt that this opinion might be of value and assistance to the officials of the county, the members of the county Board of Health, and the staff of the Milbank Memorial Fund and State Charities Aid Association.

The efficiency of questionnaires in the accumulation of frank opinions is well known. Your Committee, after mature deliberation, determined to send to each physician in the county, whether a member of the Society or not, a clear cut and concise questionnaire, dealing with the Demonstration. This has been done. It is for a consideration of the data so obtained, and for appropriate action thereon, that this meeting is being held tonight.

Briefly, the manner of procedure in the questionnaire was as follows:

Questionnaires were prepared containing questions with which you are already familiar. Each question was stated in such a way that the answer would be brief and definite. After the preparation of the questionnaires, 64 copies were signed and sealed by a notary. The cards sent to non-members were signed by the notary in red ink, and those sent to members, in blue-black ink. With this exception there was no mark of identification on the cards.

The names and addresses of the physicians were then carefully checked by a clerk, and the 64 copies were mailed by the notary and an assistant to the 64 practicing physicians in the county.

A notation on each questionnaire stated that the physician's signature was not necessary. This was thought advisable, in order to obtain the fullest and frankest opinion.

Of the 64 questionnaires sent out, 52 have been returned. When the questionnaires were received they were checked by the notary, and identified as the questionnaires sent out. It was necessary to send out three additional questionnaires, two physicians losing theirs, and one having made mistakes in filling his out.

Following the checking of the returned questionnaires, a summary was made by the notary, of the answers. This summary is hereby submitted.

Total number of questionnaires sent out: 64.
Total number returned: 52.

Number received from non-members (red signature).10
Number received from members (blue-black).......42

Of the 52 cards received, 18 were from local health officers.

Summary of Answers.

Question No. 1.

In the event that the present Health Demonstration were to consider remaining in this County for another 5 years, would you favor the County Medical Society endorsing and requesting such a move?

Answered "yes" non-members 2, members 10, total 12
Answered "no" non-members 8, members 30, total 38
Indefinite answers 2

Question No. 2.

In the event that the Demonstration withdraws at the end of this year would you favor the continuation of the County Board of Health?

Answered "yes" non-members 5, members 22, total 27
Answered "no" non-members 5, members 18, total 23
Indefinite answers 2

Question No. 3.

Do you approve of the County Health Unit idea as developed and demonstrated in *this* County?

Answered "yes" non-members 4, members 15, total 19
Answered "no" non-members 6, members 23, total 29
Indefinite answers 4

Question No. 4.

Do you favor the cooperation of lay and unofficial bodies (such as the Milbank Fund and the State Charities Aid Ass'n) in the official health work of this County?

Answered "yes" non-members 3, members 9, total 12
Answered "no" non-members 7, members 32, total 39
Indefinite answer 1

Question No. 5.

Has the present Health Demonstration affected your practice?

Answered "none at all"	26
Answered "favorably"	12
Answered "adversely"	11
Indefinite answer	3

Question No. 6.

Do you believe that the present Demonstration is having a pauperizing effect on the people of the County?

Answered "yes"	35
Answered "no"	14
Indefinite	3

Question No. 7.

Do you think that the present Demonstration has increased or lessened respect for the practicing physician in the County?

Answered "increased"	12
Answered "lessened"	32
Indefinite answer	8

Question No. 8.

What part or parts of the work of the present Demonstration do you think have proved of most value?

Tuberculosis work	39
Laboratory	39
Venereal disease clinics	26
Health, education and publicity	16
Sanitation	11
Nursing	11
Infancy, maternity and child hygiene	9
Communicable disease control	4

Question No. 9.

What age group are you in?

20 to 40 years: 14 40 to 60 years: 25
Over 60 years: 12 not answered: 1

Question No. 10.

Are you a local health officer?

Yes: 18 No: 34

Question No. 11.

Do you think that the people of the County have had "value received" for the County's expenditures in the County Board of Health?

Answered "yes" non-members 3, members 12, total 15
Answered "no" non-members 6, members 28, total 34
Indefinite answers 3

It is evident from a study of the above answers that 52 out of 64 physicians, or over 81% of the physicians, thought the questionnaire deserved consideration.

It is evident also, that 38 physicians in this county, much more than half of the total number in the county, definitely do not want to see the present demonstration continue. Only 12 are definitely in favor of its continuation.

In the event that the demonstration withdraws at the end of the present year 27 physicians would like to see the county Board of Health continue, but only 18 would have it continue in the way it has been developed and demonstrated so far.

Only 12 physicians in the county record themselves as favoring the entrance of lay and unofficial bodies such as the Milbank Fund and the State Charities Aid Association into the health work of this county.

In answer to the oft repeated assertion that the demonstration is helping the physician, 26 answer that they have experienced no such effect, and 11 report an adverse effect.

That the present demonstration is pauperizing the public is stated definitely by 35 doctors, and it is interesting to note, in a study of the questionnaire cards, that one of the physicians recording himself as favoring the demonstration, nevertheless reports this tendency.

It is an undisputed fact that the backbone of all effective public health endeavor is the family physician, yet 32 physicians record themselves as believing that the present demonstration is lessening respect for the practicing physician.

A study of the answers brings out likewise the fact that these opinions are held by non-members of the Society to as great an extent as by members.

Tuberculosis work, the laboratory, and venereal disease clinics meet with much more approval from the physicians than the other branches of the work, with communicable disease control, infancy, maternity and child hygiene, and public health nursing, as they have been conducted in *this* county, meeting with very little approval. Those activities which have been successful are those which have been proved elsewhere, are not experimental, and not subject to unofficial interference.

A study of the answers, tabulated by age groups of those answering, shows that opposition to the demonstration is not confined to the older men, but is just as acute in the younger group.

To the question as to whether the county has had its money's worth, for the money the county itself has expended, 34 physicians give "no" as their opinion. The opinion of the physicians on this question is one which is of great interest due to their peculiar and fitting position to judge. No expert, no matter how competent, and regardless of where he is from, can, in a few days' study of the situation here, form an opinion as valuable as that expressed by 34 physicians who have seen the demonstration at first hand, and clearly, for nearly five years.

Your Committee is of the opinion, after a careful study of the questionnaires, and after conference with medical men in this county, that the Cattaraugus County Medical Society should go on record as opposing a continuation of the present health demonstration after the endof the present year. We feel that five years of the Milbank Demonstration has demonstrated little that affects this county favorably, and it is in this county that we are interested. Rather has the Demonstration demonstrated that, wherever lay bodies have attempted to interfere with and guide official health work, the result has been inefficiency and chaos. We, therefore, wish the Society to put itself on record as favoring a county Board of Health, but not the type of county board of health that Cattaraugus County has experienced during the past four and one-half years. We wish to record ourselves as favoring separate municipal health departments in the two cities of the county. We wish the Society to put itself on record as favoring and pledging its support to official health workers, not guided by the whims and fads of at times inexpert lay experts. To quote the words of a writer in the July 2, 1927, issue of the *Journal of the American Medical Association*:

"We have every confidence in all those specialists in public health who are legitimately specialists. We have a quite natural suspicion of those lawyers, politicians, business men, preachers, and otherwise unoccupied ladies, grouped so loosely and thoughtlessly as "social workers" who have not had basic training or understanding of those subjects to which we have so seriously and with single hearted zeal devoted our whole preparation and life."

And further quoting the same writer:

"We are back of every sensible measure of accredited preventive medicine. We are more than willing to play our essential part in the program of public medicine. We are not, however, a class prone to accept without due consideration the vaporings of every volunteer amateur Moses."

We wish the Society to oppose any tendency to build up in this county an expensive and unwieldy health machine. We feel that there are limits to the amount of money that can be spent with profit for public health, and limits to the numbers in personnel which a county of this size should support. We feel that the farmers of this county, whom we recognize as its backbone, should not be asked to support the large number of public health nurses which they now, through state and county taxes, are supporting. We feel that public health work, like other public works, is ruled by a law of diminishing returns, and that increasing expenditures are not necessarily followed by corresponding increasing returns.

We further feel that the County Medical Society should frown on efforts on the part of any organization to inject politics and political considerations into the public health situation in this county.

We, the members of your Committee, feel that there has been a good deal of propaganda dealing with "experts" and "expertness" which has reflected on the county, its people, and its medical men.

We feel that a good public health nurse must be primarily a good general nurse, and a good public health official primarily a good practitioner. One must first have experience in the disease, before one can effectively and with cooperation practice prevention.

We resent also the continuous campaign of glorification which has been a part of the present demonstration. We can see no more reason for such a campaign of praise of the workers of the county Board of Health than there is for similar adulation of any other officials of the county or the cities who are doing their duty, and we resent the efforts of interested persons to exploit the profession in which we are engaged.

We disapprove of premature and overenthusiastic reports in general. We resent in particular reports reflecting directly or indirectly, purposely or otherwise, on the practicing physician. We feel that the Demonstration has no monopoly on philanthropy. Physicians in this county year after year unostentatiously do a vast amount of progressive preventive medicine. They did so before the arrival of the Demonstration, and they will do so after its departure.

Your Committee therefore, moves the adoption of the following resolutions:

Resolved: that the Cattaraugus County Medical Society go on record as desiring the withdrawal of the Milbank Demonstration from this county, and opposing any request for its continuation after the termination of this year.

Further resolved: that the Cattaraugus County Medical Society go on record as favoring and supporting a county board of health, conducted on a modest and practical scale, and operated without interference from the State Charities Aid Association or other unofficial bodies.

Further resolved: that the Cattaraugus County Medical Society, while expressing its appreciation to the Milbank Memorial Fund for its Cattaraugus County effort, records its opinion that this experiment has demonstrated the ineptitude of lay bodies to bring about properly the transfer of the theoretical to the practical.

Further resolved: that a copy of this report be sent to the Committee on Public Relations of the New York State Medical Society, and that a copy of the minutes of this meting be sent to our State Medical Journal.

The motion was carried, the vote being yeas 26, nays 5.

THE CATTARAUGUS COUNTY "BULLETIN"

The Cattaraugus County Medical Society has issued its Bulletin number 2, dated August 20, 1927. It gives the resolution passed on August 4, at the special meeting of the Society, and continues:

"A complete report of the action of the society at this meeting, together with a verbatim copy of the report of the Committee on Public Health and Public Relations, is in process of printing, and will be mailed to each physician in the county within a few days.

"*Important*: Your Committee on Public Health and Public Relations is at present hard at work on a comprehensive program of sound and economical public health work for this county. The Committee will make a report at the next meeting of the Society. But, in the meantime, the Committee wants suggestions from every physician in the county. Please send yours in."

"Do you read the Salamanca 'Republican-Press'? If not, why not. Sometimes on the same pages with advertisements for chiropractors and kidneys ills and pills, one finds copious adulation of the health demonstration, and unkind remarks about the Medical Society. One physician wrote a letter to this paper defending somewhat the health demonstration, and the end of his letter was placed to the right and slightly above the ad. which read: 'Kidney Trouble Cured' . . . Dr. Nelson has given me a course of adjustments . . . R. F. Nelson Health Service."

THE ALLEGANY COUNTY MEDICAL SOCIETY

The Allegany County Medical Society held its mid-summer meeting on Thursday, July 28, at the Hotel Joyce, Andover, with the president, Dr. H. E. Cooley, presiding and twelve members present.

The following Committee on Public Health and Public Relations was appointed: Dr. L. C. Lewis, Belmont, Chairman; Dr. N. H. Fuller, of Friendship, and Dr. F. E. Comstock, Wellsville.

Dr. Sadlier, President of the Medical Society of the State of New York, addressed the meeting on the standards and activities of a county medical society.

Dr. Archibald E. Dean, District State Health Officer, discussed the relation of the Board of Supervisors to Public Health Nursing.

The scientific part of the program consisted of a paper on "Some Original Blood Pressure Observations," by Dr. Virgil C. Kinney, Superintendent of the Wellsville Sanitarium.

MEDICAL WARES

RADON SEEDS

Radium has been used in therpeutics since its discovery in 1898 by Madam Curie. It has also served to unlock the secrets of the constitution of the atom, and to explain the ultimate composition of matter. Every practicing physician has a deep interest in radium, for it is one of the trinity of measures used in the effective treatment of cancer—surgery, the *x*-ray, and radium. Each of these forms of treatment has been standardized, and the means of their application have been made available to every physician.

It is a general principle in the treatment of cancer that the order of choice of the three methods shall be as follows:

1. Surgery for the complete removal of the new growth.
2. The *x*-ray for growths on the surface which can be readily removed.
3. Radium for deep growths.

Radium is enormously expensive—about $70,000 per gram. It was produced first in Europe from ores containing only a small per cent of uranium. Then large deposits containing a very considerable quantity of uranium were discovered in Colorado. The Belgians later discovered a higher grade of ore in Africa, and now the principal source of supply of radium is Belgium. However, the amount of radium that the world needs is much less than that which was at first supposed, because the standard means of applying radium is to collect its "emanation" in tubes which are sent to a doctor in exact doses. Since it is the active deposit from the emanation which is the therapeutic agent, the radium itself is kept in a lead box from which its emanation is pumped off as it is needed. A few grams of radium is therefore sufficient to treat a number of persons at one time.

The peculiar property of radium is that it breaks down into a series of other elements like a stream of water flowing down a series of cascades or rapids, the final element of its transformation being lead. While nearly all the disintegration products are solids, one is a gas called *Radon*. This gas or emanation is used in therapeutics, because its decay products are the same as those from radium.

Radon is used in the form of small sealed tubes, called *Radon Seeds*. A solution of radium promide in water containing hydrochloric acid is placed in a box of lead. The gas from this box is pumped out once or twice a day and is purified by the removal of its air, water, hydrochloric acid and other undesirable products. It is then sealed in tubes of glass, platinum, gold, or other material, which are then ready for application to the surface of the body, or for insertion into a tumor. This method of applying radium was first discovered in 1913; but in recent years it has been developed on a commercial scale, and has been brought within the reach of every physician.

Commercial radon tubes are usually from 3 to 10 milimeters long, and about one half a millimeter in diameter.

In order to comprehend the dosage of radon or radium, one must know something about the newer conception of the composition of matter. An atom is composed of particles of positive charge, around which particles of negative charge (electrons) revolve at distances which are very great compared with the diameters of the particles. An atom of hydrogen consists of one positively charged particle, and one negatively charged particle. The other elementary substances form a series containing an increasing number of particles of both kinds of electricity until the limit of the number of particles is reached in radium and uranium. The number of charged particles and the complexity of their arrangements in the atom of radium are so great that the atom is somewhat unstable, and continually gives off particles of electricity, both positive and negative, with the result that radium itself slowly changes its nature, producing other elements, the last one of the series being lead.

The negative particles flying off from the atom with a speed almost as great as that of light, give rise to vibrations which are analogous to those of light or the *x*-ray.

There are therefore three radiations from radium: 1. Particles of positive charge, called *Alpha Rays;* 2. Particles of negative charge, called *Beta Rays;* 3. Electro-magnetic waves, called *Gamma Rays*.

The gamma rays are similar to the *x*-rays, and are the ones which have the principal therapeutic effects. The alpha and beta rays are largely undesirable, but the greater proportion of them may be excluded by a thin sheet of glass or metal. The thickness of the glass, gold, or platinum out of which radon seeds are made, is adjusted to permit the passage of a definite amount of alpha or beta rays, while allowing practically all the gamma rays to pass out.

The intensity of radiation given off by a radon seed is expressed in *Millecuries*, one of which is the amount which is constantly given off by a milligram of radium. This definition is by no means scientifically correct, but it will enable a physician to visualize the strength of the radiations indicated by a radon seed. A millecurie of radon gives off the same energy as a milligram of radium in unit time.

The dosage of radium which a physician wishes to prescribe is expressed in *millecurie hours*. One millecurie of radon applied to a tumor for 100 hours gives off the same amount of radiation as 100 millecuries applied for one hour. Each package of radon seeds is marked with the millecurie content of emanation, so that a physician who buys the seeds gets the equivalent of a known quantity of radium.

The emanation contained in a radon seed is evanescent in comparison with that of radium. A period of 1,700 years will elapse before the rate of the emission of the emanation of radium is reduced to one-half its original rate. Radon loses one-half of its emanation in 3.85 days, and one-half the remainder in 3.85 more days. A radon seed left in the tissues for two weeks has exhausted 90 per cent of its strength. Radon seeds therefore soon become inert, and may not need to be removed from the tissues, except that they are foreign bodies.

The strength of the radiation from a radon seed and from all other radio-active substances, is estimated by means of an *electroscope*. An electroscope is an instrument of marvellous simplicity when its great delicacy and accuracy is considered. It consists of a piece of gold leaf about 1/16 inch wide and two inches long, one end of which is attached to an upright, insulated metal rod about the size of a lead pencil, so that the leaf hangs down beside the rod. The gold leaf and rod are enclosed in a case containing a window through which the gold leaf may be observed.

The observer charges the rod with frictional electricity by rubbing a piece of glass or sealing wax and touching it to the projecting part of the rod of the electroscope. The electricity causes the gold leaf to be repelled from the rod and to stand out at an angle from it.

When a radio-active substance is brought near the electroscope, the rays discharge the electricity and the gold leaf falls toward the rod. The rate of the fall as shown on a scale indicates the radio-activity of the substance that is tested.

Radon is applied by insertion into cavities of the body, such as the cervical canal, or by its implantation into the tissues by special applicators resembling small trochars. If a seed is to be left in place for only a short time, a thread is attached to it so that it may be removed. When an ulcerative effect is desired, the tubes come away when the tissues break down; but they may often be left in the tissues indefinitely without harm.

The dosage and distribution of radium implanted in a diseased tissue on a scientific basis requires considerable knowledge and experience. It is a general rule that one implant is required for every cubic centimeter of tissue. The size and shape of the tumor must therefore be known, and the extent of its ramification. One must also consider the effects of the radiation, and the pain, and inflammation, and destruction which it causes. Tables for the application of radon are published by the manufacturers, and professional advice is supplied to inquiring physicians. The manufacturers of the seeds supply a standard product whose potency may be compared to that of strychnine. A physician who buys strychnine in tablet form is supposed to understand its dosage and to use it with skill so as to secure effective results, and avoid its poisonous effects. The manufacturers of radon enable a physician to secure the effect of $100,000 worth of radium at the price of one-twentieth of one per cent of its value.

Radium is also used for producing phosphorescence on a commercial scale. When zinc sulphide is exposed to the sunlight, it glows with a greenish light which persists for a few moments when it is placed in a dark place. Radium mixed with the zinc sulphide also causes the substance to glow, and to give off light continually. The activated sulphide is made into paint and is spread on the dials of clocks and watches. A few cents worth of radium will activate sufficient zinc sulphide to coat several dials.

Luminous paint was formerly made from mesothorium, which is a radio-active element derived principally from the waste material of Welsbach gas mantles; but very little is now produced on a commercial scale. Much of the activity of the meso-thorium formerly produced was due to the radium which was always associated with it.

THE DAILY PRESS

ELECTRONS IN COMMON THOUGHT

The conception of electrons has penetrated into the common thought of the people to such an extent that an editorial writer, in the New York *Herald Tribune* of August 18, uses it in describing how electrons, racing from New York, lighted the great Jefferson searchlight in Charlottesville, Virginia. The writer says:

"Their job began with the thought in Miss Gibboney's brain when the button of the flashlight was to be pressed. Electrons carried this thought message down the nerves to the muscles that did the pressing. Other electrons inside the fibers of these muscles forced the motion. When the switch of the flashlight was closed, still other electrons leaped by millions between the bits of brass that came in contact, flowed through the small wire of the lamp and heated it.

"Then came the first part of the race in which electrons were not the runners. The ray from the lamp was a light ray. Whatever light may be, it is not electrons. But the selenium cell on the small statue which the flashlight illuminated used electrons again. Each atom of this selenium contains thirty-four movable electrons. Two or three of these are rather loose. The light ray from the flashlight knocked out a few billion of these. Thus a feeble electric current was made through the selenium device. Then the electron relay race began. Those knocked out of the selenium flowed through a wire and passed the impulse to other electrons in a device called, quite appropriately, a relay. These new electrons took up the baton and passed it to an enormous army of their fellows waiting all along the miles of wire between New York and Virginia.

"Finally the impulse reached Charlottesville. There waited another team of electrons to carry it to the power circuit supplying the searchlight. This power also was electrons, a vast assemblage of them, that rushed across between the carbons of the great arc lamp, generating the light ray visible fifteen miles away. The Westinghouse engineers who arranged all this may not have thought of themselves as race promoters, but that is what they were. It was a race by the smallest and fastest runners in the world; for billions of electrons can stand like mediæval angels on the point of a needle, and the whole race, from Miss Gibboney's brain to the searchlight beam of Monticello, probably took no longer than a hundredth of a second."

DYES AS GERMICIDES

The daily newspapers are spreaders of medical knowledge to an extent that few readers are aware, unless they watch for health items. The New York *Herald Tribune,* for August 30, discusses the effects of dyes on bacteria in the body in an editorial which is a model of popular scientific writing. The following extracts reveal the style of the writer:

"To the average sick man it probably is not a matter of grave concern whether the bacteria which inhabit him are dyed pale pink or bright purple, but it seems to matter hugely to the germs. This is the implication of the discussion on dyes as medicinal agents which Professor Hugh H. Young, of Johns Hopkins University, expects to open this week at the meeting of the American Chemical Society at Detroit. The use of dyestuffs to color the interior of the body as well as its habiliments is one of the newest phases of the science of chemotherapy.

"The value of a dye in medicine appears to be that it seizes hold of the bacteria against which it is directed and holds fast to those tiny creatures until it poisons them or otherwise incommodes them into dying. No one knows just why the dyed germs decline to live. Perhaps they catch sight of their newly-decorated features and expire from shock.

"Old-fashioned germicides like carbolic acid or corrosive sublimate are too successful as poisons. Not only do they kill any unwary germs, but they also do enormous damage to the healthy living cells of the body. Sometimes this is inevitable: some of the healthy cells may have to be sacrificed to repel the germ invaders, as the general of an army may throw away troops of his own to help keep an enemy out. But it is better, if possible, to kill the germ and to let the body cell live. This, it is hoped, is where the new multi-covered germicides will find their best use. As some dyes are fast on wool but refuse to attach themselves at all to silk or cotton, so it is found that there are some which delight to color up bacteria but leave the body cells severely alone. It is this selective attack, not the accident of turning germs mauve or cerise, that gives the new dye therapy its place."

OUR NEIGHBORS

THE DANGER OF INTRA-NASAL ADMINISTRATION OF OILS

The danger of exciting a fatal pneumonia in infants by the inhalation of baby powders is well known to physicians. It is not so widely known that oils given intra-nasally may also cause death. This fact is developed in an editorial comment in the May 26th issue of the *Boston Medical and Surgical Journal,* which says:

"One of the therapeutic measures in common use is the instillation of a few drops of oil into the nostrils of infants suffering from various conditions which give rise to congestion of the mucosa or to nasal discharge. Evidence has been accumulating to prove that this is not an entirely safe procedure. Recently Pinkerton (Pinkerton, H.: *Am. Jour. Dis. Chil.,* 1927, vol. xxxiii, pp. 259-285) has published the results of a careful study of the behavior of oils aspirated into the lungs of infants, based on six autopsied cases in which the aspiration of oil was the underlying cause of death. The oily material encountered in several cases was identified as that administered as nose drops. In one the oil, through the history and typical color reactions in sections, was determined to be cod liver oil.

"The condition apparently is not so rare as has been assumed, and there is considerable evidence that oils and fatty substances given to infants by mouth or introduced into the nose, either for purposes of medication or for food, find their way into the lungs. The removal of oily material from the alveoli and the absorption of the oil is a comparatively slow process, and the end result is similar to the reaction to any other inert foreign body.

"An acute infectious pneumonic process is usually super-imposed and according to Pinkerton is probably the immediate cause of death. As regards the clinical diagnosis, it may be possible to diagnose the condition by finding oil-laden phagocytes in the sputum. However, the difficulty of obtaining the sputum from infants is sometimes extreme. Clinical and X-ray evidence yield no definite characteristics of diagnostic value.

"The means of avoiding such dangers as this condition presents are obvious, such as keeping to a minimum the amount of oil used for nose drops, incorporating oily substances used for medication directly into the food, and the use of the greatest possible care in tube feeding."

THE FULL-TIME SECRETARY

Many State Medical Societies are considering the employment of a full-time secretary, who would also edit the Journal of the Society. The Colorado State Medical Society has the appointment of such an officer under serious consideration. The June issue of *Colorado Medicine* has the following editorial comment on the plan by the Secretary, Dr. F. B. Stephenson.

"Can we finance a full-time secretary?

"The answer is yes, if we are willing to contribute individually a yearly trifle.

"Having conferred with other State Societies, I have learned that a suitable man likely cannot be obtained for less than $5,000 per year, some societies paying $6,000 or more besides maintaining offices and paying traveling and other expense.

"Our present financial status would at first sight seem to prohibit the undertaking. The income to our General Fund is now about $2,200 ($2.00 per member), and to *Colorado Medicine* a like amount, making a total of $4,400 in addition to which $1,100 ($1.00 per member) goes to the Special Fund for Education of the Public in Medical Affairs. It is plain that with the present distribution of dues, and with the present membership, more money would be needed for the plan. The two means of raising money besides raising the dues are —first, increasing the advertising and subscription of our Journal, and second, bringing in new members. The secretary and the editor are agreed that a secretary-business manager, employing his whole time, could make *Colorado Medicine* pay its own way; and records of doctors located in Colorado show a roundly large number of eligibles who do not now belong to the State Medical Society.

"Pay the officer a salary of $4,000 plus traveling and incidental expenses for the first year and let him devote his time largely to stimulating constituent society activities, increasing membership, and putting *Colorado Medicine* on a self-supporting basis. Consider a raise in dues of $1.00 as a tentative measure, making $5,500 available the first year, then allow the new executive to work out his own salvation in this manner.

"The plan given contemplates dues of $6.00

(*Continued on page* 1050, *adv. xii*)

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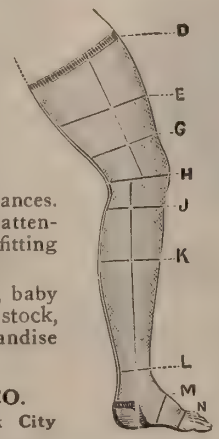

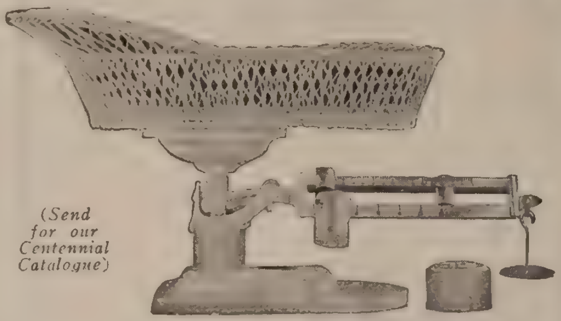

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(*Continued from page* 1048)

per member, of which $1.00 would continue 1 go to the Special Fund. If the Society wishe to do away with further accumulations in tl Special Fund, leaving the present nest-egg ($6,811.82 for several years, the above plan coul be followed with no change in amount of du until such time in the future as the need aro for replenishing the Special Fund.

"In view of the fact that the State Societ does not now and never has paid rental (service charge to Denver on the score of tl library, it might be arranged to house the ne executive in the library and pay the Denv Society, say $600.00 per year for rental ar library service. This would be a part of tl expense included in the estimate above. would allow the Denver Society to pay i $6.00 per member to the State Society and st maintain the library on the present basis.

"Is our Society worth as much to us Rotary, or Elks, or Chamber of Commerce a to their members? Aren't our dues real paltry considering the importance of our o ganization?"

PULMONARY EMBOLISM OF POST OPERATIVE ORIGIN

The July issue of the *Nebraska State Medic Journal* contains an article on Post Operati Pulmonary Embolism. From the following a stract is taken:

The incidence of fatal cases in five large hc pitals has varied from one in 600 cases unde going operation to one in 2,000 cases. About t times that number of non-fatal cases occur. T condition is therefore fairly common, and is ever present risk in operative surgery.

The curve of frequency is very low for cas under 40 years of age, and reaches its maximu from 60 to 70 years. It is most frequent on t 8th day after operation, but may occur from t first minutes up to the 8th week.

Dyspnoea is the most constant symptom, degree varying with the extent of the lung ar from which blood is excluded.

Pain in the lower chest is another consta symptom.

"When pulmonary embolism occurs the da gerous period is the first few minutes, and the patients can survive the first ten minut they survive oftener than not, provided that s ondary pneumonia does not intervene and ev if it does, more get well than die.

"In the non-fatal cases the dyspnoea so wears off, the pain in the chest subsides, the te perature rises and a cough soon develops. D ing the next few days the sputum may streaked with blood. Chest examination reve

(*Continued on page* 1051, *adv. xiii*)

(*Continued from page* 1051, *adv. xiii*)

an area of dullness and tubular breathing. The sounds may be absent if the infarction is distant from the surface. Symptoms pass off in from a week to ten days. Embolism differs from an ordinary pneumonia in its mode of onset, its lesser severity and shorter duration.

"A patient aged 49 at our hospital started to get out of bed 14 days after a perforated gastric ulcer had been excised and a gastroenterostomy performed, to put on his clothes preparatory to going home. He fell back in bed and died without speaking. Such cases may be due to a fragment of clot reaching the medulla, although with a massive clot the strain on the heart may be sufficient to cause an immediate dilatation of the heart.

"The primary condition is the formation of an intravascular clot. The situation of this primary clot is in the internal and external iliac veins or at the point where they join to form the inferior venae cavae as shown by the few cases in which complete reports are available. Many writers have assumed that the clot originated at or near the site of operative interference but little or no proof has been discovered post mortem. When we consider that more than half of the cases are comprised of gall-bladder, stomach and appendix cases, all of which have their veins draining into the portal system, yet the embolus which caused death passed into the right auricle and plugged the pulmonary artery; the thrombus, therefore, was not formed in the operative area but almost certainly in the iliac veins or inferior venae cava.

"Operations above the diaphragm rarely result in pulmonary embolus because venous stasis cannot occur in the superior venae cavae. Operations upon the pelvic organs more frequently result in embolism than operations in other parts, due to the large veins which may be injured by the position used in such operations, by the presence of retractors and packs in the pelvis in the proximity of veins, and by the immobility of the patient after operation. It is further noted in favor of venous stasis as the chief cause of thrombosis that it occurs much more frequently in patients whose circulation is poor from toxemia, anemia or any cause.

"There is a very prevalent belief that embolism is due to sepsis, but this seems an untenable theory.

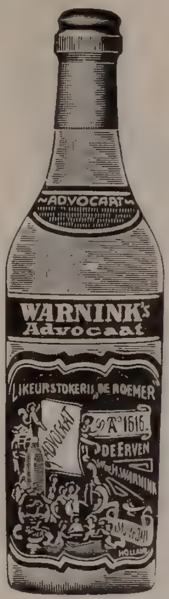
"Before thrombosis can occur two factors must be present:

"1. A certain amount of thrombokinase derived from the tissues and liberated by the wound must be present in the blood.

"2. There must be venous stasis.

"The sequence of events then would be, as a result of a wound thrombokinase is liberated from the tissues, and gains entrance to the blood

(*Continued on page* 1052, *adv. xiv*)



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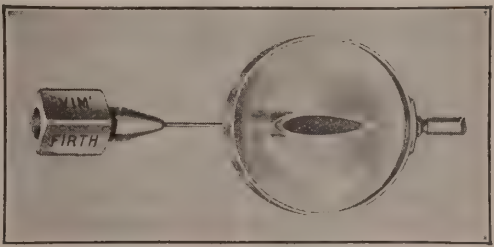

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(*Continued from page* 1051, *adv. xii*)

stream by the lymph route or directly. This enables a clot to form in those veins which for th time being good is stagnant or nearly so.

"Granting that venous stasis does favo thrombosis then the second phase is easy o comprehension. A small bit becomes loosene passes through the right side of the heart an on into the pulmonary artery obstructing th right or left or even both.

"If the embolus is small we simply have infarction of a small area (post operative pneumonia) which usually clears up nicely. If th embolus be large, death may ensue with grea rapidity."

"The treatment is preventive, and consists i the avoidance of injury to the veins during th operation, and of anything which would caus venous stasis.

"The article concludes:

"Although this subject is a difficult one, th causative factors far from definitely proven, th means for preventing embolism so uncertain an the treatment so unsatisfactory, it is a great thin that surgeons have at last begun to enquire ho they may avoid this dreadful complication; an it is to be hoped that in the near future we sha be able to solve this problem completely."

CHOLERA IN INDIA

The May issue of the *Indian Medical Record,* which is published in Calcutta, contain an article on the epidemiology of cholera an an editorial advocating the use of Hoffkine' vaccine as a preventive.

The epidemiological article is by Sir Leonar Rogers, M.D., who has studied the incidenc of cholera in the several sections of India, beginning with that in 1817 in the Ganges Valle This epidemic began in Bengal in the latte part of 1817, declined as usual in the col weather months in Western Bengal (no Bihar and Orissa), increased again as usual i March, 1818, and spread with rapidity, neve since equalled, north west over the Unite Provinces to the Punjab and south throug Central India, Hyderabad State and the Bombay Deccan, overran to Madras by the end o the year, and passed to Ceylon in Januar 1819, the Indian Peninsula having been fre from cholera from some years previously.

The author shows the relation of humidit and rainfall to cholera, but he lays the greatest stress on the great religious pilgrimage to holy shrines on the Ganges and other rivers. While numbers of pilgrims visit thes shrines every year, great pilgrimages occu every twelve years; and these are the grea cholera years. How the pilgrimages sprea

(*Continued on page* 1053, *adv. xv*)

(*Continued from page* 1052, *adv. xiv*)

cholera is told in the following quotation: "The bathing place of the pilgrims is 650 feet long by about 80 feet wide, shut off from the rest of the Ganges by rails. Into this long narrow enclosure, the pilgrims from all parts of the emcampment crowded as closely as possible from early morn until sunset. The water within this space was during the whole of the time thick and dirty, partly from the ashes of the dead brought by surviving relatives to be deposited in the waters of the river god, and partly from the washing of clothes and bodies of the bathers. Now pilgrims at the bathing ghat, after entering the water, dip themselves under water three or more times, and then drink the holy water whilst saying their prayers; the drinking of the water is never omitted. The quantity of water drunk by the bathers varies, but it is never less than about as much as can be taken up by the palms of two hands held together, so as to form a cup and usually several cupfuls are drunk.

"When we remember that a large proportion of the million or two pilgrims come from the great Bengal United Provinces endemic area I have described, and travel long distances through it, it would be a miracle indeed if cholera did not appear among them, in spite of the elaborate sanitary arrangements made by the Government for the occasion, as occurred in 1867, regarding which Cutcliffe recorded that the health remained good until the 11th April, but on the evening of the 12th there were several undoubted cases of cholera, and on beginning to disperse on the morning of the 13th, 'every section of the great multitude had become contaminated with cholera, and every one of the streams of returning pilgrims had cases of the disease within one day's journey of Hardwar, and it clung to them till their arrival in their homes in the most distant parts of the province.'"

Concerning the spread of cases in the Punjab, the author says:

"The first cases among residents occurred in persons who had been in close contact with pilgrims. In no single instance did the disease appear in a station before the arrival of the pilgrims. The facts leave no doubt of the transmissibility of the disease and of the pilgrims being the vehicle of its importation into the Punjab."

The author has traced the origin of some of the epidemics, and has given the histories of the first known cases at some of the shrines, and has traced the incidence of cases which have occurred almost daily thereafter at the shrine and along the return routes of travel of the pilgrims.

(*Continued on page* 1054, *adv. xvi*)

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VISITING PHYSICIANS ARE ALWAYS WELCOME

(*Continued from page* 1053, *adv. xv*)

The editorial in the *Indian Medical Record* for May, says:

"Bengal is now in the throes of its annual epidemic of cholera which exacts an annual toll of at least 30,000 lives. The most lamentable thing about this apalling sacrifice of human life is that it is wholly avoidable. In many European countries that used formerly to suffer severely from cholera the disease is now entirely unknown. Recently we have had striking proof that eastern countries can also be freed from cholera by preventive measures and anticholera inoculation. Thus in both Java and Korea cholera has been entirely stamped out by the widespread use of cholera vaccine and in the Philippines and French Indo China also the disease has been greatly reduced by the same means.

"During an epidemic of cholera in Japan the anticholera vaccine was used with great success. The Dutch authorities of Batavia following the example of Java decided in 1914 on mass inoculation with anticholera vaccine. More than 60 per cent of the population of Batavia were inoculated and the results were remarkable. In September of that year there were 110 cases, in October it rose to 606, fell in December to 26, in January only 3 and since then Batavia is almost free from cholera. In 1919 the Government of Java issued 5½ million c. c. of the vaccine and the population of Java was 35 millions. It can thus be easily seen that a large proportion of the people was inoculated. The result was that during the last four years there had not been a single case of cholera in the whole island.

"The example of Java was followed by Bagdad. In a short space of time practically the whole population were inoculated with the result that cholera disappeared almost immediately and had never appeared since, according to the last reports.

"Strangely enough the method of prevention of cholera that has been used with such success in many countries was never tried in Bengal, the home of cholera, where the vaccine was first prepared by Hoffkine. It was left to a popular minister to take up this vital problem in right earnest and Bengal will remain ever grateful to the Hon'ble Mr. Gaznavi if cholera is stamped out from Bengal through his efforts. A laboratory has already been opened for the preparation of the vaccine on a large scale so that in the near future it can be supplied free in sufficient quantities to enable mass inoculation of the whole population of Bengal possibly."

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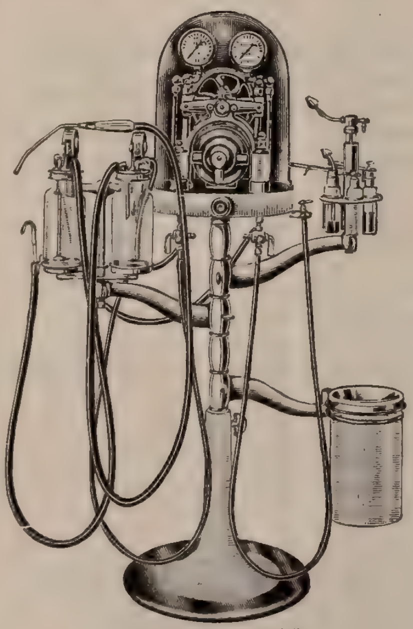

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VISITING HOUSEKEEPERS

A considerable proportion of the time of a public health nurse is devoted to educational work along the lines of simple housekeeping. The City of New Haven finds so much of this work to be done that it employs five housekeepers to go into the homes of the sick and needy, and help and instruct the caretakers in the elements of housekeeping. The work of these visitors is told in the following article from the May issue of the *Monthly Bulletin* of the New Haven Department of Health.—EDITOR'S NOTE.

"At the present time there are five Visiting Housekeepers on the Staff of the Visiting Nurse Association. They are trained and supervised by the Dietitians of the Home Economics Department. These workers spend from two to four hours in a home where the visiting nurse finds help is needed in solving some of the home making problems. The family pays 35 cents an hour if they can afford to do so.

"Here are five types of cases being carried at the present time: Mother ill, a new baby and no one to help in caring for the home or other children. The Visiting Housekeeper spends two or three hours every day preparing food for mother and family, and making the home neat and tidy, until mother can again resume her duties.

"A child needs medical attention and there are three other little tots in the family. The Visiting Housekeeper stays in the home and continues mother's duties while she takes the child to the physician for treatment, or if the mother is unable to go, the Visiting Housekeeper takes the child.

"A young girl has been left in charge of several younger sisters and brothers. The mother is dead, and this girl needs a helping hand in keeping house. Many a mother needs instruction in the preparation of good nourishing food, or needs to be taught how to keep house, by having a Visiting Housekeeper work with her.

"It may be a young mother needs help in making a layette. Oftentimes clothing is given away without a thought as to how it may fit the wearer. The Visiting Housekeeper teaches the mother how to use a pattern, sew and remodel old clothing.

"Many chronic cases carried by the Visiting Nurse Association need a Visiting Housekeeper two or three times a week to do a few necessary things they are unable to do for themselves. The work of the Visiting Housekeepers supplements that of the nurse, enabling her to do a better piece of public health work."

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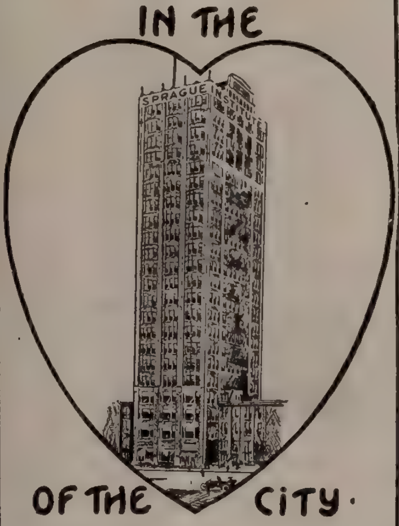

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PHYSICIANS IN RURAL COMMUNITIES

The Nebraska State Journal for June comments on the availability of physicians in rural communities as follows:

> "The lay press has featured under bold headlines two facts brought out in a report of a survey made by Miss Anna Cameron (Nebr. Uni. Extension Dept.) of conditions in about sixty counties in Nebraska: That there are six counties without railroads, and two counties without a doctor. On the face of this statement it looks bad. Pennsylvania, with an area about two-thirds that of Nebraska and with a population about 6 times as large, has one county without a railroad; but it has highways and motor cars—so do Nebraska counties without railroads. A town, without a physician, twenty-five miles from a railroad in these days of highways and automobiles, is no worse off than were the farmers ten miles from any Nebraska town before the days of the auto. It seems certain that it is not a scarcity of physicians, but lack of support, that keeps physicians away from these small isolated places."

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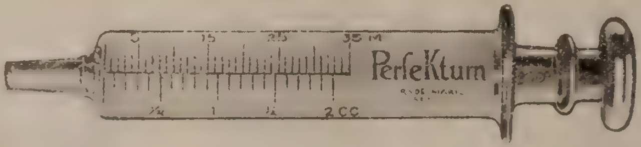

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NEW YORK STATE
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VOL. 27, No. 19 NEW YORK, N. Y. OCTOBER 1, 1927

THE ACTUAL ACHIEVEMENT OF MEDIAN PERINEAL PROSTATECTOMY, AN ANALYSIS OF TWENTY-FIVE CONSECUTIVE CASES, ILLUSTRATING THE AUTHOR'S METHOD*

By PARKER SIMS, M.D., NEW YORK, N. Y.

IN selecting a method of surgical treatment for cases of prostatic obstruction, it is but right and proper that one should select the safest and the best.

I believe that median perineal prostatectomy is the best operative procedure that has been thus far developed. If this is a fact, it must be susceptible of demonstration.

The best way to estimate the merits or demerits of any procedure is to study a consecutive series of cases. Of course, it would not do to select a group of favorable cases on the one hand nor would it be fair to take an unfavorable group on the other hand,—but a consecutive group.

For this purpose, I am recording and analyzing twenty-five consecutive cases which I deem to be a sufficient number. This group embraces a wide enough variety to afford a good demonstration of not only what was accomplished but of what we may expect to accomplish.

These twenty-five patients were operated upon by my method of median perineal prostatectomy and were treated according to my present day methods.**

It will be noted that these cases occurred during the time that I have been using sacral anesthesia. They also embody practically all of my present day methods and modifications, so that I feel that they not only demonstrate what occurred but what we may reasonably expect to accomplish in succeeding series of cases.

The average age of these twenty-five patients was 64 years and 4 months. Nineteen were between 60 and 75; five were between 50 and 60 and one was under 50 years of age.

All of these patients had residual urine, some in only a small amount. Six of them had complete retention, some with overflow.

While the blood chemistry of the majority of these cases showed a high retention of urea nitrogen, of N. P. N. and of creatinine, only two numbers 7 and 20 showed such high retention that I felt called upon to resort to preliminary decompression of the kidneys. All the others were fit subjects for a one stage operation.

Patients who had had a large amount of residual urine, for any length of time, showed the highest blood retention.

In 18 of these cases, I employed the X-ray to determine stone in the bladder. The X-ray revealed stone in numbers 12, 14 and 15.

A bladder stone was overlooked in case number 9 because I depended upon the fact that a well known urologist had used the cystoscope and had pronounced the patient free from stone. This was unfortunate, for owing to this assurance, I did not search for a stone and remove it. The consequence was a continued pyuria and a later operation .

I personally employed the cystoscope in examining five of these patients numbers 7, 15, 16, 17 and 20. These were the only cases in which I deemed a cystoscopic examination of importance. In each of these the cystoscopy was performed at the time of operation which is much safer than employing it at the preliminary examination.

The cystoscope in these cases is often dangerous and sometimes misleading. I am glad to know that many prominent genito-urinary surgeons feel as I do about this matter.

In cases 9 and 13 other urologists had used the cystoscope as a means of preliminary examination. In case number 9 this was misleading. In case number 13 the result was serious. The patient suffered severely from the traumatism. He had a profuse hemorrhage filling his bladder with blood and requiring several days of difficult preliminary treatment before the operation could be undertaken.

These cases and many others have fortified me in the belief that the cystoscope should not be

---

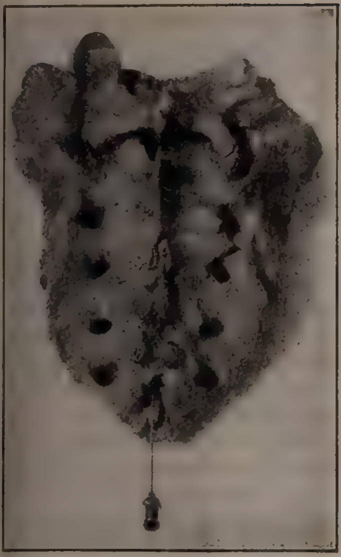
* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

** *Prostatectomy*, Emphasizing the Present Day Factors of Safety.—New York State Journal of Medicine, September, 1925.

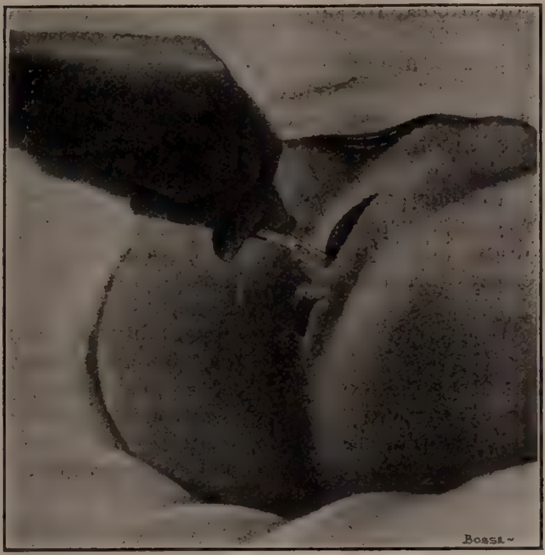
Perineal Prostatectomy, Twenty-five Years Experience with the Author's Technique.—Journal of the American Medical Association, January, 1926.

	Name	*Age*	*Referred by*	*Anesthesia*	*Out of bed*	*Bladder Control*	*Able to leave hospital*	*Urine thru penis*	*Wound closed*	*Final result*
1	J. A. B.	60	Dr. C. Whittemore	Sacral	18 hours	From time of op.	16th day	3rd day	14th day	Excellent
2	R. H. A.	72	Dr. J. E. Thompson	Sacral	18 hours	From time of op.	12th day	5th day	21st day	Excellent
3	W. M.	64	Dr. David N. Barrows	Sacral	106 hours	From time of op.	75th day	8th day	75th day	Excellent
4	C. W. M.	60	Dr. F. N. Loomis	Ether-Sac.not Giv.	36 hours	From time of op.	20th day	7th day	38th day	Excellent
5	M. D. M.	47	Dr. David N. Barrows	Sacral	24 hours	From time of op.	10th day	4th day	24th day	Excellent
6	H. C.	62	Dr. John Wertheim	Sac. Ether sub.	36 hours	From time of op.	16th day	7th day	11th day	Excellent
7	H. N.	67	Dr. A. Falkenbury	Sacral	36 hours	From time of op.	19th day	3rd day	32nd day	Fair
8	F. H. M.	66	Dr. F. H. Miller	Sacral	18 hours	From 5th day	6th day	5th day	15th day	Excellent
9	L. K.	53	Dr. A. Galambos	Sacral	18 hours	From time of op.	6th day	4th day	18th day	Excellent
10	L. M.	57	Dr. M. B. Freid	Sacral	18 hours	From time of op.	11th day	3rd day	35th day	Excellent
11	S. W. H.	56	Dr. B. I. Tolles	Sacral	36 hours	From time of op.	6th day	5th day	20th day	Excellent
12	J. T.	70	Dr. Wm. Steinach	Sacral	18 hours	From time of op.	5th day	3rd day	7th day	Excellent
13	A. L.	71	Dr. A. B. Duel	Sacral	18 hours	From time of op.	11th day	2nd day	14th day	Excellent
14	Wm. H.	72	Dr. Joseph Boehm	Sacral	18 hours	From time of op.	12th day	3rd day	42nd day	Fair
15	W. C. M.	56	Dr. Wm. Kemble	Sacral	18 hours	From time of op.	4th day	4th day	12th day	Excellent
16	Wm. H.	68	Mr. E. Seymour	Sacral	18 hours	From time of op.	13th day	3rd day	7th day	Very good
17	A. J.	56	Dr. Wilger Jones	Sac. Ether sub.	18 hours	From time of op.	5th day	6th day	10th day	Excellent
18	F. M.	59	Dr. George Becker	Sacral	18 hours	From time of op.	6th day	8th day	21st day	Excellent
19	M. J. B.	64	Dr. D. N. Thompson	Sacral	18 hours	From time of op.	5th day	3rd day	42nd day	Excellent
20	C. H. J.	70	Dr. A. Falkenbury	Sac. Ether sub.	18 hours	From time of op.	3rd day	5th day	24th day	Excellent
21	E. S. B.	66	Dr. E. S. Billings	Sacral	18 hours	From time of op.	4th day	4th day	26th day	Excellent
22	L. S.	69	Dr. A. K. Winter	Bleeding Sec. Ether sub.	36 hours	From time of op.	12th day	10th day	26th day	Excellent
23	W. S. M.	65	Dr. E. P. Shelby	Sacral	18 hours	From time of op.	8th day	6th day	18th day	Excellent
24	J. R. G.	75	Dr. J. Riddle Goffe	Sacral	18 hours	From time of op.	9th day	9th day	24th day	Excellent
25	H. S. P.	69	Dr. A. B. Duel	Sacral	40 hours	From time of op.	10th day	7th day	26th day	Excellent

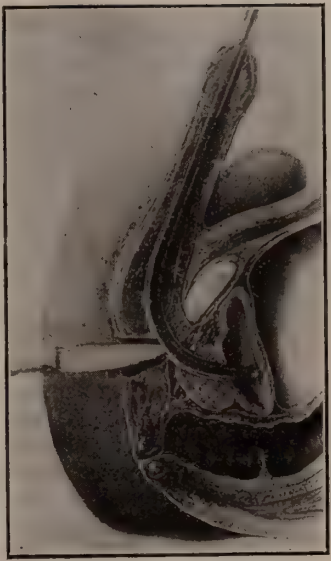
RESULTS IN 25 CONSECUTIVE CASES OF MEDIAN PROSTATECTOMY



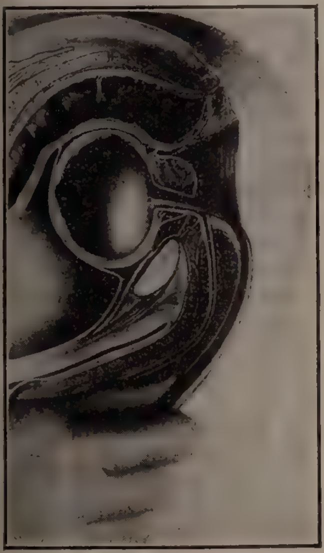
1—Posterior surface of sacrum showing needle in hiatis sacralis.



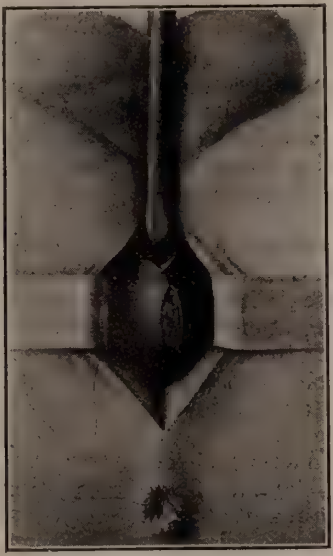
2—Showing simple median incision in perineum. There is no dissection and but a single sweep of the knife.



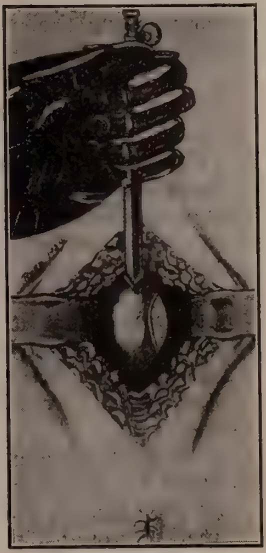
3—Knife entering the lithotomy staff and dividing the membranous urethra.



4—Showing Syms' rubber tractor within the bladder, pulling prostrate toward the surface. (I am now using Young's tractor instead of my own.)



5—Showing Syms' tractor in situ. Incision in sheath of prostrate is shown ready for enucleation.



6—Showing Young's tractor in situ. Incision in sheath of prostrate is shown, ready for enucleation.

PARKER SYMS' TECHNIC OF MEDIAN PERINEAL PROSTATECTOMY

used as a routine in the preliminary examination of the patient. The cystoscope will not tell us whether or not to operate; it may be of aid in telling us how to operate, but only in exceptional cases.

Many years ago, I operated upon a man whose case had been "worked up" by a urologist of international repute. He had prepared for me a picture of the bladder interior as revealed to him by the cystoscope. He pronounced the patient free from stone and yet when I operated I removed fifteen stones from his bladder.

Sacral anesthesia was attempted in twenty-four of these cases. It proved successful in all except four. In three of these, we found a defective solution had been used. In case number 22 bleeding in the sacral canal occurred when the needle was introduced. As this could not be cleared up by re-adjusting the needle, the injection was not made.

Case number 4 had had a supra-pubic prostatectomy performed three and a half months previously. As his supra-pubic wound had never healed and had to be operated upon we did not employ sacral anesthesia.

In this series there was one other patient who had had a supra-pubic prostatectomy performed without relief of his condition. Both of these patients were cured by perineal prostatectomy.

RESULTS

There were no deaths.

The result in case number 14 was the only one which was not as satisfactory as could be expected. The enucleation of his gland was incomplete, and he was to have had a re-operation, but before this could be undertaken he was killed in an automobile accident.

Patient number 7 had a carcinoma of the prostate. The immediate result was most satisfactory. He made a good operative recovery and was able to leave the hospital on the 19th day. His obstruction was relieved. He is still living and only complains of the fact that a little urine comes thru the perineum, his wound having reopened on account of his cancerous condition.

Patient number 9 made a remarkably fine recovery from his operation. He had bladder control from the time of operation. He left the hospital on the 9th day, and everything would have been super-fine had it not been for his undiscovered bladder stone.

Post-operative epididymitis developed in four of these cases. In cases 10 and 11 it was so slight as to be insignificant. In case 23 it was annoying because it necessitated the patient taking to his bed again for a few days. In case 21 it amounted to a severe complication, resulting in destructive orchitis, necessitating an orchidectomy.

Patient number 21 had an accident which delayed the healing of his wound. The outer fibers of his anal sphincter were torn in an attempt made by one of my assistants, to catheterize him thru the perineum, (wound), a few days after his operation. This is a thing that should not occur. It had nothing to do with the operation. When the patient left the operating table his bladder sphincter was intact and held water, and his rectal sphincter was absolutely undisturbed. Dr. James Vander Veer kindly assisted at this operation.

I lay stress on the fact that by my method of operating there should be no danger of wounding the rectum, and I believe this technique shows great superiority over the dissecting methods. In the latter, perforation of the rectum has often occurred. When it does, it is so disasterous that I believe that that fact alone has been a great setback to perineal prostatectomy.

Of these twenty-five cases all had bladder control from the time of operation with the exception of case number 7. He had perfect control from the fifth day.

By bladder control, I mean that the sphincter muscles are intact and that the patient is able to hold his urine. Some of them did not exercise this ability at all times, from the start, but as soon as they learned just what it meant, they were able to keep dry and to be up and about.

Urine begins to come thru the penis when the wound gets sufficiently small. In other words, when the wound ceases to be the line of least resistance. In these cases this happened never later than the 9th or 10th day. In six cases as early as the 3rd day. In other cases on the 4th, 5th, 6th and 7th days.

The final wound healing was satisfactory in all these cases except number 7. His wound reopened on account of his cancerous condition. The healing in case number 21, who suffered a lacerated anal sphincter after the operation, naturally was retarded but finally healed.

For one reason or another the complete healing of the wounds was slow in cases numbers 3 and 24. A minute sinus persisted for a time but finally closed completely. This did not interfere with their bladder functions nor prolong their period of disability.

Usually the healing of the wound is a detail which gives us but little concern as the patient is able to be up, out of the hospital and going about his affairs, requiring treatment only two or three times a week. It does not matter particularly whether or not his wound is actually healed so long as it is healing.

All except two of these patients were able to be up and about on the 1st or 2nd day after the operation and every day thereafter. Patient number 25 was confined to his bed for two days. Patient number 3 was able to be up on the 4th day but had to resume his bed on account of uremia and a weak heart, and his convalescence was a long one.

Twenty of these patients were able to leave the hospital within two weeks after the operation. Eleven of them were able to leave within the first week.

By able to leave the hospital, I mean that they could hold their urine so as to keep their clothes dry and were sufficiently recovered so that they could go about under their own power.

THE TREATMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA WITH TUBAL PERFORATION WITH THE AID OF THE CATHETERIZING EUSTACHIOSCOPE. CASE REPORTS*

By LOUIS K. PITMAN, M.D., NEW YORK, N. Y.

CHRONIC suppurative otitis media is characterized by a chronic inflammatory process arising from various pathological lesions which involve one or more areas of the mucosa and bony structures which comprise the middle ear, the most common symptom of which is otorrhea, (Phillips). I bring this definition before you with one aim in mind, and that is to remind you that the infection is limited to one or more areas of the middle ear. The middle ear consists of the Eustachian tube, the tympanic cavity and its contents, the attic, antrum and mastoid cells. Therefore, to obtain best results, it is necessary for us to know the location of the pathological process, so that we may limit our treatment to the portion of the middle ear infected.

The Law of Koerner—"That a complication of an ear disease is in the immediate neighborhood of the primary focus"—can be very well applied here to help us localize the area affected. That is to say, "the location of the perforation in chronic suppurative otitis media is in that portion of the drum which is in the immediate neighborhood of the infection."

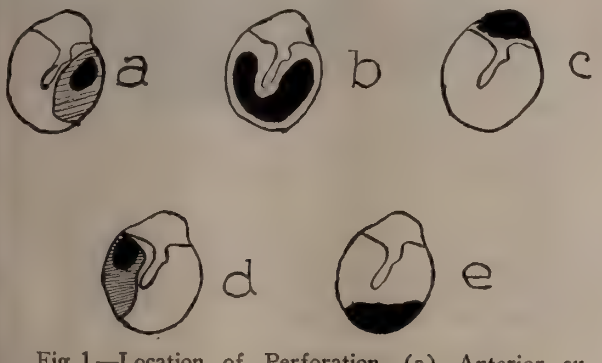


Fig 1.—Location of Perforation—(a) Anterior superior quadrent, or the whole anterior of the drum, the suppuration is in the Eustachian tube; (b) The kidney form or heart perforation speaks for an infection both in the Eustachian tube and antrum; (c) A marginal perforation immediately above the short process of the malleus (Shrapnell's membrane) signifies an attic suppuration; (d) A perforation of the tympanic membrane at the posterior superior quadrent or posterior part together with destruction of the antrum wall, speaks for an antrum suppuration; (e) A perforation of the inferior margin of the drum membrane signifies necrosis of the inferior wall or floor of tympanic cavity.

It may be said in general that if the perforation is marginal, there is bone necrosis in the region of the perforation, thus making treatment more difficult. If the perforation does not involve the margin of the drum, bone necrosis is absent, the case being one of simple chronic suppurative otitis media.

It is my aim in presenting this paper to limit the discussion to the treatment of that part of chronic suppurative otitis media, where the infection is limited to the Eustachian tube, characterized by anterior perforation of the drum membrane (Fig. 1a).

The rational treatment of such cases would be to cure the continued infection from the epipharynx, viz., infected sinuses, tonsils, adenoids, etc. Nevertheless, in the majority of such cases where we remove the causative infection in the naso-pharynx, the otorrhea is still present and the chronic suppurative otitis media has not improved. This is due to the fact that the mucous membrane of the Eustachian tube, when normal, is covered by ciliated columnar epithelium, which propels the secretions toward the pharangeal orifice of the tube. In chronic infected processes, the cilia are lost or their wave-like motion is inhibited. The isthmus of the tube forms a barrier to the downward flow of the secretion from the tympanic end of the tube. Therefore, additional local tubal treatment is necessary.

To carry out this local treatment, Weber-Liel used a small long flexible hard rubber catheter, placed inside of a large catheter (catheter guide) of usual length. The larger catheter (catheter guide) is passed to the pharyngeal orifice of the tube, and the smaller one is introduced through it to the isthmus of the Eustachian tube. A small syringe filled with a mild antiseptic is then attached to the smaller catheter and forced through the Eustachian tube into the tympanic cavity, and out through the perforated drum. This procedure is repeated at intervals until favorable results are obtained.

This treatment which is both logical and practical is neglected for the want of a safe and better instrument.

The Weber-Liel instrument has the following drawbacks:

(1) The introduction of the catheter into the Eustachian tube is not done under direct vision.

(2) The rubber catheter although flexible is too hard for safe use, and abrasions to the mucous membrane lining the Eustachian tube is very common, particularly when constant repetition of treatment is required. No matter how much care is taken, one is apt to produce a false passage, and the medication is forced into the submucous tissue, and this evokes an alarming swelling.

(3) The fact that the catheter guide has been passed to the pharyngeal orifice of the Eusta-

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 10, 1927.

chian tube and air has been forced through it into the tympanic cavity is no criterion that the rubber catheter can safely be directed through it into the Eustachian tube without creating a false passage. The accompanying diagram illustrates this point.

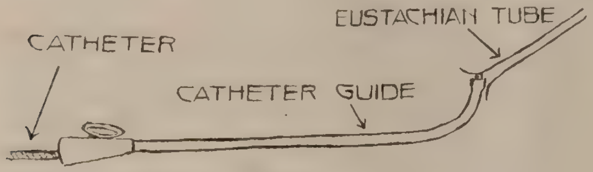

Fig. 2.—This illustration is self-explanatory why air may enter the Eustachian tube and not a catheter.

To overcome these difficulties I devised an instrument, "The Catheterizing Eustachioscope," which makes Eustachian tube catheterization and treatment a safe and simple matter. By direct vision a No. 4 to No. 6 kidney catheter adapted for this purpose can be introduced as far as the isthmus of the Eustachian tube or tympanic cavity in a few seconds.

It consists of a pair of catheter guides—right and left—and a naso-pharyngoscope. The illustration (Fig. 3) shows the right guide attached to the naso-pharyngoscope, and also the left guide separate. The guide can be slid along, also rotated about the naso-pharyngoscope. In operation, the catheter guide, containing a catheter, is attached to the naso-pharyngoscope, so that the egress portion extends along side the mirror. In this position, under slight cocainization, the combined instrument is easily introduced into the naso-pharynx, under the inferior turbinate, in the same manner as an ordinary Eustachian catheter. Then nasal orifice of the Eustachian tube is then brought into view; the guide, containing the catheter, is given a slight turn to increase the visibility of the catheter, and its free end is introduced into the Eustachian tube.

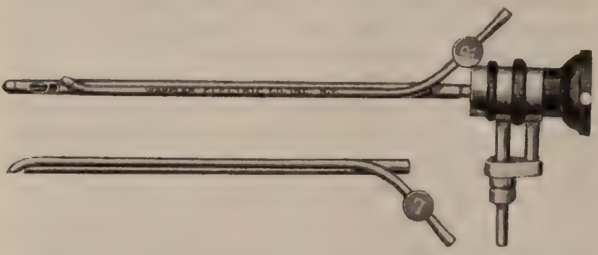

Fig. 3.—Catheter Guides—right and left, and Naso-Pharyngoscope.

Two guides are provided; one for the right ear and one for the left, because the same guide cannot be rotated to either side of the instrument without changing the direction of entry.

The advantages of this instrument over the Weber-Liel are as follows:

(1) The catheter is introduced into the Eustachian tube under direct vision.

(2) I use No. 4 to No. 6 kidney catheter exclusively for this work, which is much more flexible than the hard rubber catheter and yet not too soft for this purpose. When the catheter meets any resistance within the Eustachian tube it will bend on itself at the region of the nasal orifice, visible through the naso-pharyngoscope, and warn the operator not to use too much force.

(3) The catheter guide has a shorter curve at its end, and by not entering the nasal orifice of the Eustachian tube, both allows the kidney catheter room enough to adjust itself, and also does not unduly hamper its direction of entry.

The treatment of chronic suppurative otitis media with tubal perforation, consists of irrigating the Eustachian tube (as illustrated in Figs. 4, 5 and 6) with 3 to 5cc of 20% argyrol at each sitting for about 15 sittings. The washing is done twice weekly. When the discharge is fetid, the following has been helpful in conjunction with the washings

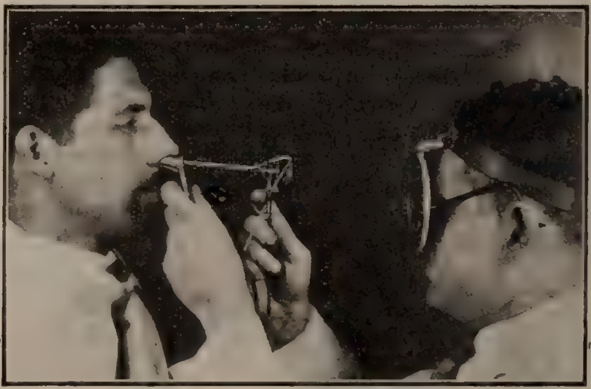

Fig. 4.—Introducing Catheterizing Eustachioscope into the Naso-pharynx under the lower turbinate after cocainization as in ordinary catheterization.

R/x	Formalin	m5
	Hydrargyri	gr 132
	Alcoholis	oz ss
	Aqua dest. qs ad	oz iii

gtts. 5 in ear 3 times daily

This series consists of nine consecutive cases. The functional test showed in all cases a middle ear impairment, before and after treatment. There was a noticeable improvement of hearing with the progress of treatment, as tested by a spoken and whispering voice, and the majority called my attention to the fact that their hearing became more steady.

Five of the series showed anterior perforation of the drum membrane but not marginal. One case was of a bilateral condition, thus presenting an opportunity to employ two methods of treatment for comparison, (see chart, patient 5).

Case No.	*Sex and Age*	*Ear*	*Condition of nose and pharynx*	*Previous treatment*	*Duration of Running Ear*	*Location of perforations*	*Type of discharge*	*Number of irrigations*	*When treated*	*Remarks*
1 J. K.	male 28 years	Right	atroph rhin	local nose treat.	7 years constantly	anterior but not marginal	muco-pur. none fetid	14	Apr. 28, '26 to June 12, '26	Patient's ear still dry. Last visit May 2, '27.
2 A. L.	male 19 years	Left	no path. found	Ton. removed 4 years ago	4½ years constantly	anterior infer. not marg.	muco-pur fetid	9	Dec. 28, '26 to Feb. 4, '27	Patient's ear dry. Last visit 3–6–27
3 B. S.	male 17 years	Left	Dev. Septum	T and A 12 years ago	12 years irregularly	anterior not marg.	muco-purul. fetid	12	7–12–26 to 9–2–26	Patient's ear dry. Last seen about 4 months after last irrigation.
4 B. K.	male 32 years	Left	Chr. rhin.	local nose treat.	8 months	anterior not marginal	muco-purul. fetid	8	7–14–26 to 8–12–26	Patient's ear still dry.
5 H. B.	female 42 years	right and left	seems normal	bilater antrum irrigated 3 years ago	4 years irregularly	both anterior not marginal	muco-purul not fetid	right 10 left 8	R. 9–6–26 to 10–18–26 L. 10–12–26 to 11–7–26	Treated right ear by irrigation and left with iodine powder for comparison. Right ear dry after 8 irrigations, but not left. Applied irrigations to left. Dry after 6 washings.
6 E. K.	female 50 years	left	seems normal	none	4 years constantly	anterior inferior marginal	muco-purul. fetid	14	2–23–26 to 3–30–27	Patient's ear dry.
7 S. R.	male 27	right	evidence of operation ethemoids	2 years ago nasal operation	3 years constantly	anterior marginal	fetid	16	6–27–26 to 8–24–26	Last seen 12–2–26. Dry.
8 M. J.	male colored 19 years	right and left	Chr. hyper. rhin.	scarlet 17 years ago	17 years constantly	anterior marginal	fetid	left 22 right 20	L. 8–8–26 to 10–12–26 R. 10–6–26 to 12–2–26	Same findings as patient 5. Last seen 12–2–26. Both ears dry. Patient has not returned since last washing.
9 H. R.	male 29 years	right	seems normal	none	29 years irreguarly	anterior marginal	fetid	12 14	9–6–26 to 11–12–26 2–2–27 and still under treatment	1–26–27. Ear dry. Injected lipidoil for Eustachian tube tracing. The following day severe local reaction. Fever, chills, and marked rhinitis. Ear again began to run and has not been dry since. Secretion no longer fetid.

CASES OF OTITIS MEDIA TREATED BY MEANS OF THE CATHETERIZING EUSTACHIOSCOPE

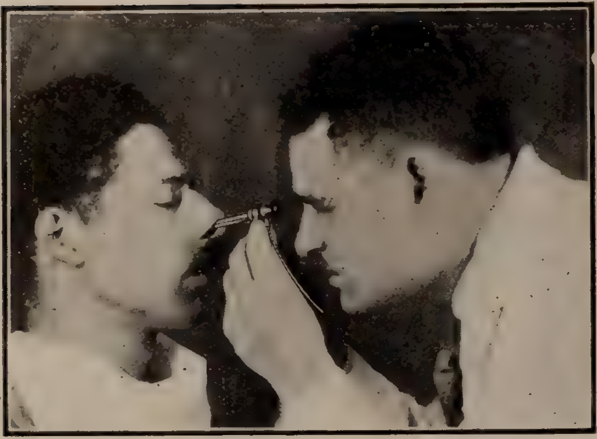

Fig. 5.—Eustachian orifice brought into view by the observing telescope. Catheter introduced into Eustachian tube.

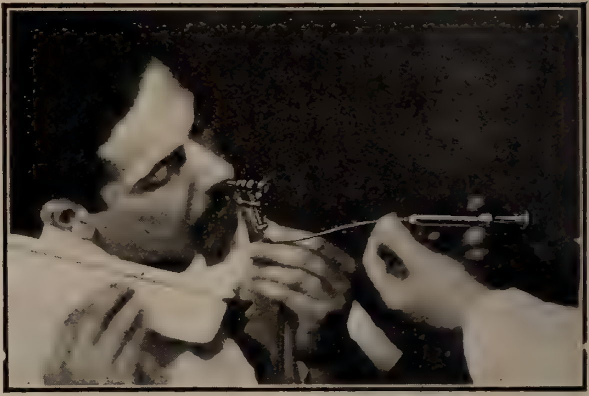

Fig. 6.—Patient bends head toward the affected side. Medication is forced through the Eusthachian tube by way of the catheter, running out through the perforated drum and the external canal.

The other four of the series showed anterior perforation, marginal type. One case was of a bilateral type thus also presenting an opportunity to employ two methods of treatment, for comparison (see chart, patient 8).

The foregoing cases are presented because of the several different conditions represented and because the results obtained in the application of both the old and new methods in bilateral cases. Although owing to the newness of the instrument the number of cases so treated is extremely inadequate for positive conclusions, the results obtained are so gratifying as to warrant the introduction of this method among otologists with a view to determining its actual possibilities after more extensive use.

TREATMENT OF LUPUS ERYTHEMATOSUS WITH GOLD COMPOUNDS

(Sodium Salt of Aurothiobenzimidazol Carboxylic Acid)

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EUROPEAN investigators have recently directed their efforts toward the study of tuberculosis through the application of gold preparations. These efforts have led several European dermatologists to try this form of therapy in the treatment of Lupus erythematosus on account of its supposed relationship to tuberculosis. Martenstein (1922 and 1926), Ullman (1923 and 1924), Volk (1925), Bruhns (1924), Jeanselme and Burnier (1926), Galewsky (1924 and 1926), Stein (1922) and Havenstein (1924) were pioneer investigators along this line.

In 1922 Martenstein used a preparation called "Krysolgan," which was prepared by Feldt in 1917 and chemically is the sodium salt of 4 amino=2=aurothiophenol carbonic acid. The results with this preparation seem to have been variable, some observers reporting cures. Ullmann reported successful results in eight cases. Volk treated twenty-seven cases with favorable results. Nobel, on the other hand, was unable to substantiate Ullmann's claims.

In 1924, Mollgaard of Copenhagen, reported on a gold compound of thiosulphuric acid called "Sanocrysin." This preparation has been extensively employed in tuberculosis, but recently it was employed by Schamberg et al (1926) in the treatment of Lupus erythematosus.

Galewsky (1926) has presented a report on the treatment of Lupus erythematosus, stating that Krysolgan was a tremendous improvement as compared with the first gold preparation, "Aurocutan" (monocantharidyl-ethylenediamin-aurous cyanide). However, it caused a series of unpleasant after-effects, severe exanthemata ,and three deaths that were reported by Stein, Havenstein and Bruhns. No recent deaths have been reported. Galewsky thinks that with improvement of the drugs and the technic, it is possible to avoid these severe symptoms.

He further states that Sanocrysin produces even more severe after-effects than Krysolgan, and according to a report from Vienna, its use in the treatment of Lupus erythematosus had to be discontinued on account of the danger.

More recently, Schamberg, Harkins and Brown (1926) in the United States, presented a fairly complete summary of the application of gold compounds in tuberculosis, and have given a preliminary report of their results obtained with these preparations in the treatment of experimental tuberculosis of the skin in animals. They summarize their results as follows:

"While we cannot claim to have prevented the generalization of tuberculosis in inoculated guinea pigs and rabbits by means of injections of gold compounds, we have observed a demonstrable influence on the cutaneous lesions, and in some animals a considerable prolongation of life beyond the average of the infected controls."

"No absolute deductions can be drawn from the experiments here reported. We believe however, that they indicate that a favorable, though not curative, influence is induced by gold therapy. Taken in connection with the work done abroad, they offer the hope that perhaps with a more ideal gold compound something may be achieved in the treatment of cutaneous or of general tuberculosis."

In spite of these recent reports, it must not be overlooked that gold and sodium thiosulphate was prepared as early as 1845 by Fordos and Gèllis. Mollgaard's modification of this preparation of gold is said to utilize from 90 to 95 per cent more gold than that which was combined in the original product. The gold and sodium thiosulphate prepared by the older methods contained only from 10 to 15 per cent of gold. This, however, is due to method of preparation and by means of these improvements, a preparation of higher gold content is obtained.

Mollgaard's Sanocrysin contains about 37.5 per cent gold and 26.2 per cent sulphur. Some preparations of gold and sodium thiosulphate have an extremely low gold content. In this respect the clinician should be on his guard in applying preparations of varying gold content. Some preparations have an extremely high gold content and some very low, so unless the gold content is noted, comparative clinicial results cannot be attained. Similar consideration must be given to the toxicity, stability and solubility of the preparation, in addition to toleration by the patient.

The next gold preparation to appear was "Triphal," which is the sodium salt of aurothiobenzimidazol carboxylic acid, and has the chemical formula C_6H_3N - NH - CSAu - COONa $2H_2O$. Shortly after this, another compound called "Aurophos" was developed. This preparation is chemically the sodium gold double salt of aminoarylphosphinic acid and hyposulphuric acid. The toxicity of Triphal, according to Galewsky, is 0.1 gram per kilogram of rabbit. Its dosage is 0.025 to 0.200 gram. It can be given three times a week.

The clinical experience of a few of the important reports shows that according to Martenstein (1926), fourteen of his sixteen cases of Lupus erythematosus were completely cleared up. Twelve of these were free from the disease for twelve (12) to fifty-five (55) months. Two relapsed in from thirty-eight (38) to forty-four (44) months respectively. Those cases which responded to treatment showed extremely slight scarring. Galewsky (1926) treated twenty-four (24) cases of all types of the condition with the following results: Ten (10) cured; eight (8) considerably improved; three (3) only slightly improved; one (1) unimproved; two (2) gave up the treatment before they were discharged. In several of the improved cases the treatment is being continued. Galewsky stated that his results were not as good as Martenstein's because three (3) of his cases were of the severe hyperkeratotic type which had been present for years; they had not been discharged.

Schamberg and Wright in 1927 gave abstracts of other papers on the gold treatment of Lupus erythematosus and showed their results with gold and sodium thiosulphate. They believed that this report was the first application of sodium and gold thiosulphate in the treatment of this condition. This report, however, overlooked the investigations of Galewsky (1924, 1926), and Jeanselme and Burnier (1926), who had previously used this drug. Schamberg and Wright state that they are still in doubt as to some of the technical features of the treatment; i.e., the dosage, frequency of administration, duration of treatment, etc. In high dosages, malaise and general depression were noted. In a few cases, albuminuria, urticaria, pruritus and scarlatiniform or polymorphous erythematosus eruption developed. They state that in one patient a fatal acute outbreak was stimulated. The summation of their case shows that the eruption disappeared in five cases; almost disappeared in six cases; improvement in twelve cases; and one patient died after receiving gold and sodium thiosulphate.

Our attention to this mode of treatment resulted from the investigations initiated by Throne (1925). Based on these clinical studies in which all modes of treatment had been applied, it was our desire to employ chemotherapeutic measures which would attack the disease from within. Radium, X-ray and CO_2 snow had shown little progress in arresting the disease.

In our service a great many cases of Lupus erythematosus were seen and our attention was directed toward chemotherapeutic agents which could be administered intravenously. Much speculation had appeared in the European literature about undue toxicity and on this account our procedure was extremely cautious. In the beginning of our investigations, the initial dose was only 0.010 gram of Triphal per injection. The gold protein compounds of Schamberg had produced such severe reactions that these small doses were employed in spite of more accurate toxicity reports that had been experimentally obtained by us. Gradually, these doses were increased until the present mode of procedure which consists in the intravenous injection of 0.050 gram of Triphal as the initial dose, and increasing to 0.100 gram for each succeeding dose. These injections are given three times per week, if possible; good results are obtained with biweekly injections. The number of injections necessary to permanently arrest the condition varies with the duration of the disease and the extent of the pathological process.

The injections were all given intravenously and as a result of about fifteen hundred injections no painful infiltrations or disturbing reactions have been observed. The solutions of Triphal are prepared by sprinkling the contents of the ampule on the surface of cold, sterile, freshly distilled water. The product is readily soluble and gives a clear light yellow solution. Two and one-half cubic centimeters to five cubic centimeters of water are used for each injection without consideration of the dose. Occasionally, multiple doses are dissolved when several patients are ready for injections. However, caution is suggested in regard to the use of old solutions which become toxic and, in the case of gold and sodium thiosulfate, decomposition takes place, as indicated by the disagreeable odor of the solution. All injections should be made slowly.

The preparation employed by us in this series of patients was the sodium salt of aurous thiobenzimidazolcarboxylic acid. This preparation was selected as the most suitable on account of its low toxicity, stability in ampules and high tolerability. In the selection of this preparation a comparative study of the toxicity and gross pathological changes was made. Comparison of these results for Krysolgan, gold and sodium thiosulfate (Sanocrysin) and Triphal is given in the table below.

Experimental Procedure

Healthy, male albino rats weighing 100 to 150 grams were employed. The rats were obtained from one source and were kept on a constant, well balanced diet (a mixture composed of whole wheat flour, 53.5 per cent; corn meal, 10 per cent; skim milk powder, 33 per cent; calcium carbonate, 0.5 per cent; sodium chloride, 1 per cent; and cod liver oil, 2 per cent) for two weeks before the tests. They were fasted for from 16 to 20 hours immediately before the administration of the drugs when they were weighed and the doses administered per kilo body weight. The solutions of the drugs were prepared with freshly distilled water and were administered within one hour from the time of preparation. The concentrations of the solutions employed were as follows: Triphal, 2 per cent; gold and sodium thiosulfate, 1 per cent, and Krysolgan, 0.065 per cent. The injections were made into the saphenous vein at the rate of 0.1 cc. solution every 12 to 15 seconds. A 1 cc. syringe accurately graduated to 0.01 cc. was employed. All animals that lived were observed for seven days when they were killed and carefully necropsied.

The toxicity tests were carried out by Dr. C. W. Hooper.

It will be seen from the following tables that the maximal tolerated dose of Triphal for the albino rat is 120 milligrams per kilo body weight when injected intravenously. The maximal tolerated dose of gold and sodium thiosulfate is 60 milligrams per kilogram and the maximal tolerated dose of Krysolgan is 2 milligrams per kilogram. The gross pathologic lesions found at necropsy are also described.

The patients included in this report consist of the ambulatory group of individuals who attend the outpatient department of the hospital, with the exception of two who are noted in the case histories which follow. The fact must not be overlooked that the usual difficulty in keeping the patients in regular attendance was experienced in these cases. In spite of this, the results of treatment have been most gratifying. The total number of patients shown receiving treatment in our service is 58. These cases reported below consist of those termed as "cured" (complete arrest of the disease accompanied by complete disappearance of the lesions and the erythema) and those who have been under observation sufficiently long enough that a definite prognosis is available. All patients who are discharged are requested to return at two week intervals for observation.

The following histories illustrate our plan of attack:

No. 1. Mrs. Rose F., aged 50, showed typical patches on the cheeks below the eye lids. The duration of the disease was eight (8) years. Before treatment was instituted the patient was examined for focal infection. Five

TOXICITY OF GOLD AND SODIUM THIOSULFATE

ALBINO RATS INJECTED INTRAVENOUSLY

Dose mg/kg	Rat No.	Length of life	Ending	Lungs	Liver	Kidneys	Remarks
40	1648	7 days	Killed	Normal	Normal	Normal	
40	1649	7 "	"	"	"	"	
60	1650	7 "	"	"	"	Enlarged nephrosis	Lost weight after injection
60	1651	7 "	"	"	"	"	"
80	1652	3 "	Died	"	"	"	"
80	1653	4 "	"	"	"	"	"
100	1654	2 "	"	"	Swollen and dark	"	Small intestines congested. Colon empty
100	1655	5 "	"	"	Normal	"	
120	1656	4 "	"	"	"	"	
120	1657	4 "	"	"	"	"	

TOXICITY OF KRYSOLGAN*

ALBINO RATS INJECTED INTRAVENOUSLY

Dose mg/kg	Rat No.	Length of life	Ending	Lungs	Liver	Kidneys	Remarks
1	1637	7 days	Killed	Normal	Normal	Normal	
1	1638	7 "	"	"	"	"	
2	1639	7 "	"	"	"	Enlarged nephrosis	Lost weight after injection
2	1640	7 "	"	"	"	"	"
3	1641	2 "	Died	Congested. Pleural fluid increased	"	Nephrosis	Hemorrhages in thymus and adrenals Colon empty
3	1642	3 "	"	"	Swollen and dark	"	Retroperitoneal tissue oedematous Bladder empty and contracted
4	1643	3 "	"	"	"	"	
4	1644	3 "	"	"	"	"	
5	1645	3 "	"	"	"	"	
5	1646	3 "	"	"	"	"	Retroperitoneal tissue oedematous

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* Krysolgan (according to Shering circular) is employed in doses of 0.0015 grain to 1.5 grains. In preparing the solution for the above Krysolgan toxicity test the contents of two 0.050 grain ampules (6.5 milligrams) were dissolved in 10 c.c. freshly distilled water.

TOXICITY OF TRIPHAL

ALBINO RATS INJECTED INTRAVENOUSLY

Dose mg/kg	Rat No.	Length of life	Ending	Lungs	Liver	Kidneys	Remarks
80	1599	7 days	Killed	Normal	Normal	Normal	Gained in weight after injection
80	1602	7 "	"	"	"	"	"
80	1605	7 "	"	"	"	"	"
100	1600	7 "	"	"	"	"	"
100	1603	7 "	"	"	"	"	"
100	1607	7 "	"	"	"	"	"
120	1601	7 "	"	"	"	"	"
120	1604	7 "	"	"	"	Swollen nephrosis	"
120	1607	7 "	"	"	"	"	"
140	1608	3 "	Died	"	"	Slight nephrosis	Colon empty
140	1609	3 "	"	"	"	"	Colon contained well formed feces

abscessed teeth were extracted. Triphal was given as follows: Oct. 7, 0.030 gm.; Oct. 14, 0.080 gm. At the second visit decided improvement was noticed. Oct. 21 and 28, No. 4, 11 and 18, 0.100 gm. was administered. Improvement had been progressive and at the date of the last injection no sign of the condition could be found.

This patient was shown by one of us (T) at the Brooklyn Dermatological Society and all the Members of that Society pronounced it a cured case. On December 13, an injection of 0.075 gm. was given as a possible preventive against a recurrence. This patient, previous to the gold treatment, had received all kinds of local and internal treatment except radium therapy. Among other drugs she had been given many injections of arsphenamine. In this case a total dose of 0.610 gm. was curative. There has been no recurrence up to date.

No. 2. Marion McL., female, white, aged 16 years, was admitted for treatment Oct. 25, 1926. The condition had begun on the face and scalp two years before. In August, 1926, she had been badly sun-burned and the condition had spread rapidly and widely and when first seen the rash involved the nose, cheeks, forehead, chin, scalp, neck, shoulders, arms, forearms, and the dorsal surface of the hands and fingers. On the forearms, hands and fingers some of the lesions were haemorrhagic. The scalp was extensively involved; here, there were atrophic spots from old lesions and extensive alopecia from the spreading of the condition. The patient was poorly developed and very ill. She was admitted to the hospital and examined clinically and by X-ray for pulmonary tuberculosis. No evidence of tubercular infection was found. On admission she ran a septic type of temperature. After a few days rest in bed her temperature became normal and gold treatment was instituted. She received injections three times a week; 14 injections in all. The first two injections were 0.075 gm. each and the remaining twelve were 0.100 gm. each. The patient was discharged as cured on January 12. She was examined on February 2 and showed no trace of the condition. Her general condition was much improved, her weight had gone up from 98 to 113 pounds; there had been a remarkable regrowth of hair, only the scarred spots were still bald. Reference to this case will again be made.

No. 3. Mrs. D. R., white, Jewish, aged 42, was first seen June 11, 1924, when she showed a lesion on the side of the nose near the inner canthus of the left eye. The lesion was irregularly round and about one inch in diameter. It was markedly hyperkeratotic. The patient had suffered with a rheumatoid arthritis for many years, otherwise she showed nothing abnormal. There was a diabetic family history. She was treated with CO_2 snow and radium but there was always a recurrence of the condition either in or at the edge of the scar caused by these agents.

Gold treatment was instituted September 24, 1926, using very small doses. On October 20, the dose had reached 0.050 gm.; this dose was repeated on October 22; October 25, 0.075 gm. was given. On October 27 and 29 and on November 3, 8, 12, 15, 17, 22 and 28, December 15 and 22, 0.100 gm. were given. Urine examination November 22 gave no evidence of kidney irritation. On December 15 she appeared cured. Examination February 7 showed no signs of a recurrence. In this case there was no reaction of any kind.

No. 4. Mrs. M. F., Hungarian, aged 35, was admitted for treatment June 11, 1926, for Lupus erythematosus involving practically the whole of the nose and the upper and lower eye-lids. The condition had begun nine (9) months before. She was put on gold treatment October 6, 1926. At first only very small doses were given. On October 25, 0.075 gm. was given and on October 29, November 5, 10, 12, 17 and 19, the dose was 0.100 gm. On November 24, she showed an erythematovesicular rash on the forearms and hands. For this condition Sodium Thiosulfate 0.5 gm. in freshly prepared solution was given intravenously three times a week. On December 15, all signs of this reaction had disappeared and she received Triphal of 0.050 gm. and on December 22, 29 and January 5 and 12, 0.075 gm. was given. On January 12 she was pronounced cured. No recurrence at present date.

No. 5. Mrs. K. S., white, American, aged 36, was admitted to the clinic on April 28, 1926. She showed a round lesion on the right cheek about one inch in diameter. The duration of the lesion was one and a half years.. Gold treatment was begun on October 29, 1926. Injections of 0.100 gm. were given three times a week for fifteen injections. She was pronounced cured on December 10, 1926. There has been no signs of recurrence up to February 7, 1927. In this case dental infection was found and this was cleared up before the gold treatment was begun. In this case there was no reaction of any kind.

No. 6. L. W., female, Jewish, aged 30, applied for treatment July 10, 1918, for Lupus erythematosus involving the nose, ears and the skin behind and below the ears. The condition had been present at that date for four (4) years. She received the usual treatment without any benefit and on December 1, gold treatment was instituted. She received 0.100 gm. on December 1, 3 and 6. On December 6 she developed a papulo-vesicular rash on the arms, which spread and on December 8 became practically universal. For this reaction she was given 0.5 gm. sodium thiosulfate intravenously on December 8 and 13. On December 13 she had improved and gold injections of 0.100 gm. were given on December 13, 15 and 17. On December 31 she was pronounced cured. Examination of this patient showed marked dental infection. This was treated at the time of the reaction. The total amount of Triphal given in this case was 0.600 gm.

No. 7. L. H., male, white, aged 24, admitted for treatment January 3, 1927. Duration of condition one and one-half years. Location of lesions was as follows: bridge of nose, ears and the cheeks adjacent to the ears. The lesions were moderately infiltrated and hyperkeratotic. On January 3, he was given 0.050 gm. and on January 7, 10, and 14, 0.075 gm. On January 21, he complained of moderate pruritus and on this date and on January 24 he was given 0.5 gm. of sodium thiosulfate. The pruritus subsided rapidly and on January 31 he received 0.050 gm. of Triphal. On this date he was well. There has been no recurrence.

No. 8. Mrs. M. F., aged 65 years applied for treatment March 3, 1926. Duration 2 years. Practically the whole of the nose was involved. The type of the condition was hyperkeratotic. On December 22, gold treatment was commenced. She received on that date 0.100 gm. and on the 27th and 29th, 0.075 gm. On January 1, 3, 10, 17, 21, 24, 26 and 31, 0.075 gm. Result—cured. Total dose, 0.775 gm.

No. 9. D. L., male, Italian, aged 31, admitted for gold treatment September 10, 1926, for extensive, thick, indurated, hyperkeratotic patches of Lupus erythematosus located on each cheek. The duration of these lesions was six (6) years. The early doses in this case as in others, were so small as to be negligible. On October 13, the dose had reached 0.060 gm. Up to February 2, 1927, he had received 25 injections in all and was cured. There was no reaction in this case.

No. 10. J. M., female, aged 31, was sent to the Department for Syphilis for a supposedly positive Wasserman. Her blood test here was persistently negative. She received many injections of arsphenamine, mercury and bismuth. This treatment had no effect on the lesions situated as follows on the face: one on the left side of the forehead, two on the right cheek, one on the malar eminence and the other on the cheek below this one. The lesions were of the indurated type. On January 5, she was transferred to the dermatological department, where a diagnosis of Lupus erythematosus of the indurated type was made and she was put on gold therapy. She received 0.075 gm. of Triphal twice a week. On January 24, she complained of headache. This lasted only a few days and did not interfere with her treatment. She is well.

This case is especially interesting in view of the report of Ravaut and Bocage in Annales de Dermatologie et de Syphiligraphie, December, 1926, p. 658, in which they call attention to the frequency with which a positive Wassermann is found in patients suffering with Lupus erythematosus, and give the results of treatment of these patients with Novarsenobenzol. Ravaut and Bocage claim seven cures and four patients almost cured out of seventeen cases treated. It would seem from this that the toxaemia of syphilis as well as the toxaemia of other conditions, can at least predispose to the development of the condition which we call Lupus erythematosus and that in those cases showing syphilitic infection, as evidenced by a positive blood test, anti-syphilitic treatemnt is of value, but in those where there has been no infection, as seen in the above cases, this line of treatment is of no value. The same was seen in Case No. 1, who had received many injections of arsphenamine without any benefit.

No. 11. M. G., female, aged 50. Lesion about three-quarters of an inch in diameter on the right cheek of five years duration. The lesion showed moderate infiltration, atrophy and hyperkeratosis. This patient received 0.100 gm. of Triphal on the following dates: December 10, 13, 15, 17, 20, 22, 29 and 31; or a total dose of 0.900 gm. Result—cured.

No. 12. S. E., male, white, aged 35, applied for treatment on July 14, 1926, for a discoid patch of Lupus arythematosus situated on the right cheek below the eye. The patch was irregular in shape, about one and one-half inches long by three-quarters of an inch in width. It had been present five months and showed atrophy, infiltration and hyperkeratosis. The Wasserman test was negative. He was put on gold treatment in September and until October 18, the doses were negligible. On this date he was given 0.075 gm. After this he received injections three times a week of from 0.075 gm. to 0.100 gm, until January 12, 1927. On December 15, he was cured, and at present showed no signs of any activity in the lesion.

No. 13. E. Z., female, Jewish, aged 15. Duration of condition one year. Location of the rash was on the nose and cheeks. Examination showed dental infection which was cleared up before treatment was instituted. On October 22, she received 0.050 gm. of Triphal. On November 1, 3, 5, 8, 10, 15, 17, 22 and 26, 0.100 gm. were given. On December 1, 8, and 15, the same amount was injected. On December 27, she received 0.050 gm. and on January 3 and 17, 0.075 gm. On January 3, she seemed cured. The injection on the 17th and another on February 7 were given to prevent a possible recurrence. On February 18, there was no sign of the condition left and the amount of scarring was extremely small. In this case there was no reaction.

No. 14. B. B., white, female, aged 40, showed a lesion on the right cheek about an inch in diameter. The duration of this lesion was six months. She received 0.100 gm. of Triphal on November 19, 24, 26 and 29, December 1, 3 and 22 and on January 7 she received 0.075 gm. She was cured. Total dose, 0.775 gm.

No. 15. A. G., male, white, aged 39. Duration of condition two and one-half years. The nose showed six isolated spots about the size of a ten cent piece and on the left malar region there was one lesion the size of a twenty-five cent piece. All lesions were hyperkeratotic and all showed atrophy. The patient showed dental infection. This was cleared up and Triphal was given as follows: January 10, 1927, 0.050; January 21, 0.075; January 28, February 4, 11, 18 and 26, 0.100 gm. On February 4 the lesions were less red, the scaling had subsided and the infiltration was beginning to be absorbed. At present the patient is well. There was no reaction of any kind in this case.

No. 16. A. N., female, aged 35, showed two spots on her right cheek when she applied for treatment on October 22, 1926. These spots were about the size of a twenty-five cent piece. They were hyperkeratotic and showed atrophy. Her history showed that she had suffered from a rheumatoid arthritis. The duration of the skin condition was sixteen months. She was put on Triphal and received three injections a week until January, when they were cut down to twice a week. On February 14, she was very much improved and on March 5 she was practically well. On the latter date there was no scaling and practically no redness left. No reaction of any kind in this case. This case was discharged as cured and returns for observation.

No. 17. R. R., aged 40, female, white, was admitted November 12, 1926. She showed extensive involvement of the nose with a typical discoid type of the disease which had been present for six (6) years. She was put on gold treatment on November 15, and on that date and on November 22, 26, and 29, and on December 3, 6, 10, 15, 17 and 20, she received 0.100 gm. of Triphal; on December 31 and January 7, 0.075 gm.; on December 20 she was much improved. She complained of headache after some of the injections, but they were not sufficiently severe to interrupt the treatment. This patient showed dental infection. At present patient is well.

No. 18. Mrs. L. F., aged 32, showed the butterfly type of the condition which had been present for eight years. The scalp was also involved. She was put on gold therapy October 6. On October 18, the dose had been increased to 0.050 gm. and on October 29 the amount was raised to 0.100 gm. Following this dose she developed a reaction in the form of an erythematopapular rash on the flexor surfaces of the arms and forearms. This rash spread to the trunk and thighs and legs. It was intensely pruritic. The lesions disappeared with the appearance of the reaction. For the reaction she was given sodium thiosulfate 0.5 gm. intravenously in freshly prepared solution. On February 7, the reaction had subsided but there was a recurrence of the Lupus in the form of very moderate scaling and erythema. This patient showed dental infection which was not cleared up until her reaction developed. She will be given further Triphal injections.

No. 19. John B., aged 41. Duration of the Lupus erythematosus was five years. The location of the lesions was on the nose and right cheek. He had been treated with radium without any benefit. He showed severe dental infection and was very reluctant to have this treated and only consented to have the infected teeth extracted when he developed a moderate pruritus on account of which the Triphal injections were discontinued and sodium thiosulfate was given. His first gold treatment was given on October 29. After five injections of 0.100 gm. each, given every third day, the reaction developed. On March 4, he began to show improvement. After completion of the dental work the injections of Triphal were resumed and at this date the patient is well.

No. 20. Tony V., male, aged 50, applied for treatment on April 29, 1925. He presented a hyperkeratotic type of the condition with extensive involvement of the nose and cheeks. On October 22, 1926, gold therapy was started. On this date and on October 27, November 1, 5, 8, 10, 15 and 29, and December 3, 8 and 20, he was given 0.100 gm. On January 7, 10, the dose was 0.075 gm. On account of an attack of influenza he was unable to come to the clinic for several weeks. On his return on March 5, he was very much improved. Treatment is being continued and the prognosis for a complete cure in his case is good.

No. 21. Jos. F., male, aged 31, onset of condition, 1924; location of lesions was on nose, cheeks and lower lip. All showed marked scaling, infiltration and in places atrophy. Gold treatment was instituted on January 21 with injections twice a week of 0.075 gm. On February 14, he showed a great deal of improvement and at present he is almost entirely cured. He showed dental infection; three teeth were extracted at the commencement of treatment. He had no reaction. Case discharged as cured.

No. 22. D. L., male, white, aged 31. Duration of condition two and one-half years. Over the malar eminence a rounded lesion appeared about one and a half inches in diameter; on the right cheek in front of the ear a patch approximately two and a half by one inch, and on the left cheek in front of the ear there was a lesion three and a half by one and a half inches. All lesions were markedly indurated, hyperkeratotic and showed considerable atrophy.

On October 13 and 18 he received 0.060 gm. of Triphal; on the 20th and 25th, 0.050; on the 27th and 29th, 0.100 gm. On November 1, 3, 8, 10, 17 and 19, 0.100 gm.; on the 22nd, 0.075 gm.; on November 24 and 29, December 1, 3, 8, 15, 24, 29 and 31, 0.075 gm.; January 2, 19 and 26, February 2, 14 and 23, 0.075 gm. Improvement began in the latter part of November; it has been slow but persistent. From the above dates it can be seen that since December 2, he came very irregularly for treatment. On February 23, he showed very little scaling. The erythema had subsided considerably and the infiltration was being absorbed. Prognosis as to cure is good.

The following cases were given this type of treatment, but discontinued their treatment before a cure was obtained:

No. 23. H. M., male, aged 25, admitted for treatment November 1, 1926, for lesions on the right ear and lower lip which had been present for three years. He received injections on November 1, 3, 15 and 22, December 1, 8, 15, 22 and 29, January 12 and 19. Since the last date he has not been seen. A letter from him received March 4, states that he is much improved.

No. 24. Jos. S., male, aged 18, showed a lesion on the right cheek about two by one and a half inches in size. The lesion was very keratotic and showed atrophy. It had been present for three and a half months. He had dental infection. He was put on gold treatment November 10. His attendance at the clinic during November, December and January was very irregular. On January 31 he showed marked improvement.

No. 25. Wm. G., male, aged 31, was admitted November 25, 1926, for Triphal. He showed involvement on the left ear and right cheek. He received up to January 7, eleven injections of 0.100 gm. each. He has not been seen since January 7.

In the series of twenty-five cases which have had a course of treatment, gold reactions in a mild form were observed in cases 4, 6, 8 and 10. These reactions did not materially interfere with the plan of treatment. The blood chemistry of these patients showed the typical changes in sugar and chloride content as observed in heavy metal poisoning. In each instance sodium thiosulfate in freshly prepared solution brought about the detoxification of the individual in a comparatively short time. The first symptom of reaction is pruritus and the gold treatment should be discontinued at once. It is our belief that the use of sodium thiosulfate enterically, greatly increases the tolerance. Intravenous injections of freshly prepared sodium thiosulfate solutions should be given every third day until all signs of reaction disappear. The sodium thiosulfate in this type of reaction is just as specific as in arsenic reactions and eczema.

Focal Infection and Reaction

While no claim is made as to the causal relationship of focal infection and Lupus erythematosus, its very frequent association cannot help being striking. The very constant recurrence of the condition with older methods of treatment, especially in those cases which were treated with CO_2 snow and radium in whom focal infections were not treated before radical treatment was instituted and the absence of these recurrences, as was shown by one of us (Throne, 1925). It might be added that some of the cases included in that study have been seen recently and are still free from the disease. (These cases were treated with radium by Dr. A. Schuyler Clark.) It is believed that the lack of reactions and the rapidity of a cure will be greatly enhanced by first a careful examination for any evidences of such infection and its radical removal. A comparison on the histories of patients Nos. 1 and 5, in whom such infection was found and treated and who responded rapidly to the gold injections, with case No. 6 which showed extensive dental infection and which had the most severe reaction observed in the whole series. This reaction can at least be compared to the reaction of arsphenamine which Stokes (1923) believes is most liable to occur in syphilitics who have a streptococcic infection.

Chemically, Sanocrysin, gold and sodium thiosulfate, and crisalbine are all of approximately the same composition, that is, aurous salts of sodium thiosulfate. Varying amounts of gold are found in this group. The exact composition is not known although the formula $3\ Na_2S_2O_3\ Au_2S_2O_3\ 4\ H_2O$ is ascribed to this group. For convenience, the calculations of gold found fits this configuration. The gold content varies from 15 to 37.5 per cent gold.

Krysolgan is 4-amino-2-auro thiophenol carbonic acid sodium. The gold content is 44 per cent. A comparison of the toxicity of the various gold preparations is presented, showing the gross pathology in the experimental animal.

In this report a series of cases is referred to who have not yet received a full course, and they will be reported later.

In our series of patients five (5) showed a reaction. Of these five, three (3) had focal infection which was not cleared up until after the reaction developed. In two (2) focal infection was not found. In six (6) other patients focal infection was found and treated before instituting gold therapy. It is very interesting to note that not one of the last group of patients showed the least sign of any trouble from the treatment, and in addition, the course of treatment in most of them was considerably shortened.

Rickman (1924) from a clinical point of view, confirms these findings in his studies on the treatment of tuberculosis. The author states that the injuries seen after the other gold preparations are not observed after Triphal.

The use of the powder and freshly prepared solutions is emphasized by Görl and Voigt (1926) who observed reactions following the use of the drug put up in solutions of varying age. Insofar as reactions are concerned, these authors in their conclusions point out the advantage of using freshly prepared solutions of the gold preparations. As a result of our own experiences, a freshly prepared solution of sodium thiosulfate is also more efficacious.

Bruhns states that three fatal cases following the administration of Krysolgan have been seen—his own and one reported by Stein (Goerlitz) communicated by Martenstein, and one by Havenstein.

Bruhns' case was a patient aged 61, internal examination was negative, the urine was negative for albumin and sugar. The duration of the disease was four months. The diagnosis was Lupus erythematosus acutus, but for six weeks there was no tendency to spread and the patient was free from fever. Following the injection of 0.001 gm. of Krysolgan a severe focal reaction developed with a marked oedema which involved the larynx and trachea. Anuria developed after about 20 hours and 44 hours after the injection the patient died. Catheterized specimen of urine showed casts and leucocytes.

Stein's case was one of Lupus erythematosus; Krysolgan was injected in doses of 0.05, 0.1 and 0.1 gms. at intervals of 6 and 9 days. Ten days after the last injection a stomatitis developed. This in turn, was followed by a mild exanthem accompanied by albuminuria, anuria and exitus. Before treatment the urine of this patient was free of albumin: no autopsy was made.

Havenstein's case was one in which there was a lung and laryngeal tuberculosis, and doses of 0.05 and 0.10 gms. 14 days apart was followed by a severe reaction accompanied by fever (38.5). On the eighth day meningitis developed and eight days later the patient died.

METHOD OF TREATMENT

In the beginning of our work with Triphal very small doses (0.010 gram) were used. When the toxicity tests had been done this dose was increased to 0.100 gram, the injections being given three times a week.

There is no absolute dose for all cases. Each case must be treated individually. The cases showing only superficial involvement seem to respond to small doses, about 0.075 gram, twice a week. Two of the cases included in this report received only one injection of 0.100 gram a week. In old, thick, indurated cases showing excessive hyperkeratotis, the dose must be larger. Our experience indicates that at least 0.400 gram per week should be used on this type of case.

In some of our cases, the Triphal injection has been supplemented by giving tablets of gold and sodium chloride one-twentieth of a grain each, three times a day, after meals. This has seemed to be of considerable value and is especially indicated where it is impossible to see the patient more than once or twice a week.

CONTRAINDICATIONS

Advanced kidney and liver lesions seem to be the only absolute contraindications to this type of therapy.

Focal infections should be cleared up before instituting treatment. Examination of the histories of the patients included in the above shows clearly that in those patients whose pus foci were attended to before gold treatment was given, there was no reaction and the duration of treatment was materially shortened.

Galewsky cautions in regard to the use of gold in cases which had a connection with light sensitization. Case No. 2 was of this type but showed no reaction.

Response of patients suffering with skin conditions of known tubercular origin:

Three cases of Lupus vulgaris were given this line of treatment. They were not benefited.

One case of tuberculosis verrucosa cutis did not respond.

Two cases of erythema induratum did not respond.

One case of Angio Lupoid did not respond.

Two cases of papulo-necrotic tuberculids did not respond.

One case of Lupus Pernio, Besnier type, did not respond.

We do not mean to state that this condition is unquestionably tubercular. The failure of conditions of known tubercular origin to respond to this type of therapy is an added support of the conclusions of Throne (1925) who could not find any relationship between Lupus erythematosus of the chronic discoid type and tuberculosis. In his study he found in a series of thirty patients suffering with Lupus erythematosus a positive blood complement-fixation for tuberculosis in only four cases and these four cases had demonstrable tubercular infection; on the other hand, in twelve cases of known tubercular origin, eleven gave a positive complement fixation test for tuberculosis. Sladkowitsch (1926) investigated 272 cases of Lupus erythematosus in the Moscow Lupusorium and could find no proof of a tubercular origin of the condition; 106 of these cases were examined by Dr. V. V. Vladimirsky, the consultant of the Lupusorium, and only 7 cases showed a more or less active tuberculosis. Of 135 cases tested with tuberculin, 105 gave a negative reaction even to 12½ per cent tuberculin, while 98 per cent of cases of Lupus vulgaris and of the tuberculids gave a positive reaction with 2½ and 5 per cent solutions of tuberculin. Galewsky (1926) says "Recent data and the differences with which Lupus erythematodes reacts to gold, leads me more and more to agree with the opinion of Zumbusch that Lupus erythematodes does not have any one simple cause, but there must be other factors in addition to its relation to tuberculosis."

Summary

Twenty-five (25) cases are reported after one course of treatment, ten (10) males and fifteen (15) females. The youngest patient was fifteen (15) years of age and the oldest was sixty-five (65). The duration of the condition was from five (5) months to eight (8) years.

Examination of patients at present time indicates that cures were obtained in seventeen (17) cases. Five cases show considerable improvement. They are still under treatment and the prognosis for a cure in them is good. Three (3) discontinued treatment voluntarily. One of these has written that he is improved. If we leave out these three cases, a cure has been obtained in 77.2 per cent of the cases treated.

In no case was the reaction sufficient to cause any alarm either to ourselves or to the patients.

In gold therapy, as illustrated by Triphal, a method of treatment for Lupus erythematosus has been established which promises to be specific.

Reactions are more liable to occur in the presence of focal infection. Patients should be examined for focal infection, and if this is present, it should be removed before gold treatment is instituted. If reactions occur, sodium thiosulfate in freshly prepared solution is specific for them as it is for the toxaemias from arsenic, mercury and lead.

Triphal if used with ordinary care is a safe and effective preparation in the treatment of Lupus erythematosus and should be treated on this basis because of its comparatively low toxicity and chemical stability, and ready solubility. It is also a preparation that is well tolerated.

Gold injections cause the same changes in the blood picture as do arsenic (both the arsphenamine and the pentavalent arsenical compounds) mercury and lead, that is to say, there is a marked reduction in the chloride content of the blood stream and a similar high sugar value.

The comparative toxicity of the various gold preparations is given in the tables.

Clinical study of 58 cases has been carried out in this investigation.

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PUBLICITY FOR COUNTY MEDICAL SOCIETIES*

By FRANK OVERTON, M. D., PATCHOGUE, N. Y.

Object: The object of this talk is to secure news items from the County Medical Societies for publication in the New York State Journal of Medicine. The Journal is the official organ of the Medical Society of the State of New York, of its eight District Branches, and of its sixty County Medical Societies.

The County Medical Society is the fundamental unit of the organizations of physicians, for it deals with the individual physicians. The policy of the New York State Journal of Medicine is to inspire and assist the doctors of the State to practice the best type of scientific medicine in all fields—private practice, public health, and civic medicine.

The Journal gives a prominent place to the activities of the County Medical Societies, and has utilized the news from whatever source it came. The principal source of news is the County Society itself, but one third of the items of the societies come from other sources. The number of county society news items that have appeared in the Journal from January 1, 1924 to September 1, 1927 have been one hundred and ninety-five. The three societies sending the greatest number are: Bronx, 18; Queens, 15; Otsego, 10. Seven have sent none at all: Chemung, Madison, New York, Rensselaer, Tioga, Warren and Wyoming. Sixteen counties have sent one each.

Deducting all these, there are left 34 counties which have sent 136 items, or an average of four each, or one in each year.

The lessons that may be drawn from these figures may be pessimistic or optimistic, depending on one's temperament.

The figures inspire a considerable degree of satisfaction and optimism when they are compared with the County Society items in other State Medical Journals. There is disappointment when one considers the valuable items which have not been reported—for example, the public health nursing activities of the Tioga County Medical Society.

Kinds of Items Desired: The managers of the Journal wish to report the activities of the County Medical Societies. What are those activities?

The scientific session is the oldest activity of a county society, and it is still the most essential and fundamental. It was formerly the only activity of many societies. The files of our Journal of twenty-five years ago show that nearly all the County Societies limited their activities to the scientific program consisting of the reading of formal papers. But about the year 1924 there began a spontaneous broadening of the field of the Societies of the State, the Districts, and the Counties. When the Journal was reorganized in 1924, its Executive Editor made surveys of 30 counties which were published in the Journal from July, 1924, to November 1, 1925. The officers of many Societies were considerably embarrassed over their inability to record any activity of their Societies besides the scientific programs; but the fields have broadened with a rapidity which is almost startling. The new fields of activity may be classed under three headings:

1. Educational.
2. Social.
3. Public health.

Practically every County Society has done an excellent piece of work in some one of these lines of activity. While no Society has attained its ideals in all lines, yet every Society has done something in a better way than any other Society has done it. The Journal seeks the news items regarding what has actually been done. The Journal has missed many important items simply because no one has informed the Editors about them.

Educational Work: Nearly every County has engaged in some form of educational work under the stimulus of the Committee on Education and Public Health of the State Society. The annual report of the Committee reveals a range of activities that is far wider than are indicated by the reports from the individual counties.

Send in the reports of the educational activities of your County Societies.

Social Activities: The County Societies have inspired doctors with a friendliness that was unknown a generation ago. Dinners and outings are now important functions of County Societies. Especially valuable are the dinners in honor of physicians who have been in practice for half a century. The reports of some of these meetings reach the Journal, but more are left unnoticed. Send them along.

Public Health: County Medical Societies no longer confine their activities to their own members, but they are discharging the duties which the Medical Profession owes to the public. The public health activities of a County Society usually develop gradually, and often take unexpected turns. Physicians are reluctant to say what great things they are going to accomplish; and they hesitate to claim a great importance for an activity that is only a few weeks old. However, a number of excellent pieces of public health work have gone unrecorded because the officers of the County

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* Read before the Conference of the Secretaries of the County Medical Societies of New York State, held in Albany on September 15, 1927.

Societies have not reported them. The meetings of the District Branches in the Fall of 1926 revealed some excellent work done. The meetings of the Sixth District Branch in Oswego on September 21, 1926, gave out the first news that the Editors received about the public health nursing work conducted by the Medical Society of Tioga County. This work was unique and original, and was worthy of developing in any County. News of it should have come to the Journal directly from the Tioga County Medical Society.

The news of the child welfare clinics conducted by the St. Lawrence County Medical Society came first to the notice of the Journal at the meeting of the Fourth District Branch on October 1, 1927, at Plattsburg.

When to Report: When and how shall the Secretary report the public health activities of his County Society? A committee in charge of an activity will at least report progress to a meeting of the Society. This brief report affords the opportunity of the Secretary to describe the plans and activities of the committee. While they may seem commonplace to the members of the Society, they are of deep interest to the leaders of the State Society and of other County Societies who are working along similar lines.

The Form of a News Item: The principal point regarding a news item is that it shall contain authentic information. It may be in the form of a newspaper clipping, or rough notes, or it may be a finished paper. The Editor will put it in shape if only he gets the news. The important point is: "Send the news."

Reporting and Editing: Every editor's office carries on two activities:

1. Reporting, or getting news.
2. Editing, or preparing it for printing.

While the New York State Journal of Medicine was published monthly, its Editorial Staff could also do reportorial work in the field; but since it has been issued twice a month, the Editor has not had time to do much reportorial work. The Journal must therefore depend on the secretaries of the County Societies for news of their organizations.

Just as the physicians of New York State have come to know one another through their County Societies, so may the County Societies come to know one another through the news columns of the New York State Journal of Medicine.

THE USE AND MISUSE OF IODINE IN THE TREATMENT OF TOXIC GOITER*

By EMIL GOETSCH, M. D., BROOKLYN, N. Y.
Studies of Thyroid Disorders

THE dangers in operations upon exophthalmic goitre are familiar to all experienced surgeons. Aside from the immediate danger of operative hemorrhage one commonly feared the toxic postoperative reaction lasting usually from thirty-six to forty-eight hours, and characterized by extreme restlessness, excitability, temperatures reaching as high as 105°-106°, pulse elevation to 180 or more, and finally by delirium, coma and even death. This postoperative period was one of great anxiety to the surgeon. To guard against this dangerous reaction it was necessary to resort to several palliative measures, which were planned to improve the patient to such an extent that the resection operation could be carried out safely and with the least postoperative distress. Thus long periods of rest were often required. Preliminary X-ray treatments were sometimes given and preliminary ligations of the thyroid arteries were performed, the idea being to diminish the activity of the gland. The general condition of the patient was thereby improved sufficiently to render thyroidectomy safe. Stage operations became very general in treating patients with active exophthalmic goitre. The results were strikingly good. The great disadvantage was, however, that patients were submitted to many therapeutic measures including two or more operative procedures. I have in mind an extremely toxic and emaciated patient who came to me three years ago with a huge vascular exophthalmic goitre, upon whom I performed five stage operations, three ligations at different times and two separate lobectomies three months apart, before a cure was finally established.

Postoperative hyperthyroidism was rarely feared after operation for adenomatous goitre and therefore ligations were rarely resorted to. I think I have performed ligations in adenomatous goitre in not more than two or possibly three cases. The arteries are, as a rule, small in adenomatous goitre and therefore little good can be expected from ligation.

The effect of iodine in causing hyperplastic thyroid tissue to revert to the inactive colloid type of gland had been described by Marine many years ago. Plummer in 1923 originated the intensive preoperative iodine treatment of exophthalmic goitre. It was found that in giving massive doses of iodine to the patient with exophthalmic goitre just before operation, the symptoms and signs were promptly ameliorated. The patient became far less nervous and the danger of postoperative hyperthyroidism was practically eliminated. Lugol's solution was accordingly administered in doses of ten to fifteen minims three times a day for a period of a week or ten days preceding operation.

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

In considering the effects of these massive doses of iodine we might first consider the changes produced in the thyroid itself. The gland commonly swells, becomes firm or even hard, due to the rapid accumulation of colloid in the glandular acini. The vascularity often diminishes in a most striking way. The thrills and bruits, commonly found over the superior arteries and the gland itself, often disappear entirely. It is interesting to speculate how this is brought about. Suffice it to say that to some it appears that this change results from the increased firmness and swelling of the gland. These factors and the increased tension of the capsule make it difficult for the immense supply of blood to find its way through the gland. The blood is, as it were, squeezed out of the gland by pressure upon and collapse of the vascular spaces. The increased size of the gland is noticeable to the patient, who may complain of a sense of choking or difficulty in swallowing. Microscopically the exophthalmic gland with its characteristic hyperplasia is found to have strikingly reverted to the appearance of a simple colloid goitre. This change is interpreted as a resting or storage phase of the thyroid gland. Furthermore, I have found that the mitochondria, which are interpreted as indices of cellular activity, become smaller and much fewer in number and lose considerable of their staining affinity. All these changes are believed to be evidence of the conversion of the active hyperplastic thyroid to the resting or storage gland. The secretory activity of the thyroid cells is thus inhibited. These pathological changes offer to my mind a far more satisfactory explanation of the lull in the disease than the theory that iodine, intensively administered, is combined with and renders innocuous the supposedly unsaturated iodine molecule of thyroid secretion which is otherwise unusually toxic. It is in the stage of rest and storage of colloid and possibly thyroxin that operation is most safely undertaken. Following this quiescent period which is unfortunately only transient and as a result of the storage of iodine, the secretory activity is gradually resumed and eventually greatly accelerated, the colloid disappears, the gland shrinks in size and the vascularity increases. Thus in four to six weeks after iodine is discontinued we may actually have a marked exacerbation of the disease.

In the patient with exophthalmic goitre treated for the first time intensively with iodine, we find a marked decrease in the nervousness, tachycardia and throbbing. There is improvement in appetite with increased weight together with a general feeling of well-being. The metabolic rate at times falls as much as forty to sixty points, and there is furthermore a diminished hypersensitiveness to adrenalin. The patient is consequently a far better operative risk and dangerous postoperative reactions are rare indeed. Stage operations except in those patients promiscuously treated with iodine are rarely necessary, and the mortality following extensive double resection operations has in experienced hands become almost a negligible factor. It is most gratifying to see how comfortable the convalescence has become. There is no unusual nervousness or restlessness; only slight elevation of temperature and pulse and very little if any nausea and vomiting. The patient takes nourishment promptly and recovery is rapid. Acetonuria is seldom seen or when it does occur is slight and transient whereas formerly it occurred frequently and often lasted three to five or six days.

There is one important exception to this otherwise startling story of the effect of intensive iodine therapy and that is, that in cases which have received iodine over varying periods of time, the further intensive treatment either has relatively little or no effect. Small doses of iodine are apt to be promptly stimulating whereas the larger doses produce a temporary remission of symptoms only to be followed by relapse or even crisis in three to six or eight weeks later. Frequently patients are aware of the secondary increase of symptoms and often voluntarily cease taking iodine. They may leave their physicians and seek further medical advice or when in a serious state of acute, practically uncontrollable hyperthyroidism come to the surgeon. If iodine is now discontinued the acute symptoms are prolonged for a period of weeks or even months before spontaneous improvement occurs. Rather than to prolong this period of acute suffering one is forced to continue the intensive iodine treatment, producing thus a state of chronic hyperthyroidism, which though tolerable to the patient is in no way comparable to the results obtained when iodine is given for the first time. Consequently, preliminary ligations may be necessary inasmuch as the condition may not allow the radical resection operation in one stage. On the other hand, should a single lobectomy be performed, one has a choice of two procedures. One may choose to discontinue the administration of iodine whereupon almost invariably a long period of acute hyperthyroidism results due to the excessive secretion of thyroxin elaborated from the iodine store in the opposite lobe. On the other hand, one may be forced to hold the patient in a state of chronic hyperthyroidism by continued iodine treatment. A second operation for removal of the remaining lobe is usually necessary.

I may cite briefly a single unfortunate experience during the past year with a case of exophthalmic goitre which had been given large amounts of iodine by mouth and by injection over a period of two years. She came to me in a state of extreme hyperthyroidism. She was highly nervous, tremulous, irritable and dyspnoeic. The pulse was 144. She was bordering on what might be called crisis. Rest and sedatives were prescribed over a period of five weeks. Thereupon, ligations of the superior thyroid arteries were performed at separate times. She was watched and treated for a period of three months or more. The improvement was only moderate. Finally when all hope for further improvement was abandoned and it was evident that some further surgical procedure would have to be done, she was given intensive iodine treatment and even a few doses of sodium iodide intravenously. It was impossible to reduce the basal metabolic rate below +47. The thyroid became larger and harder, indicating that the iodine had had the usual local effect. At operation a large, hard, gland was doubly resected with considerable difficulty. In spite of all the precautions exercised, namely, preliminary ligations, rest in bed and apparently adequate iodinization, the operation was followed by an acute hyperthyroid crisis. Death followed in forty-eight hours. This case illustrates the dangers the surgeon may meet in operations on exophthalmic goitre patients previously indiscriminately iodinized. The usually safe operation of double lobectomy may become a dangerous procedure in spite of every precaution. This lesson cannot be too strongly impressed upon all those who see and treat patients with exophthalmic goitre. I want to emphasize therefore that iodine in any form should not be given to the patient with adenomatous or exophthalmic goitre, in the hope of permanently benefitting the patient. Such treatment rarely produces a real relief and is generally followed by exacerbation of symptoms. Furthermore, it deprives the patient of the striking benefits derived from the correct use of iodine before operation.

I may mention a modification of the usual method of administering iodine, which I have found to possess several advantages. I refer to the intravenous administration of iodine in the form of sodium iodide. I have found this method particularly applicable in patients with extreme emaciation and in those with gastro-intestinal symptoms such as vomiting and diarrhoea. Such patients tolerate iodine poorly whether given by mouth or per rectum. Sodium iodide, however, intravenously administered has been found to be very effective and most satisfactory. The method is also useful whenever a more rapid iodinization is desired than can be accomplished by the oral administration of iodine, as in cases of acute hyperthyroid crisis. The intravenous use of sodium iodide is more prompt in its effect. A few days usually suffice to control the acute symptoms. Furthermore, the method is one of especial value in patients previously iodinized, who have had partial or complete relapse or even crisis, and in whom further administration of Lugol's solution by mouth is rather ineffective. In such cases a further beneficial effect can still be obtained by the intravenous use of sodium iodide. Finally we sometimes encounter occasional active exophthalmic goitre cases in which, even when iodine has not been previously given, the oral administration is only partially successful. The improvement in the patient's condition and the reduction in basal metabolism fall just short of the degree or level at which one would feel secure in performing a double resection. In this type of case two or three daily injections of ten grains of sodium iodide produce just enough further improvement in symptoms and metabolism to make the double operation entirely safe and free of anxiety for the surgeon. In the postoperative treatment, whenever glucose solutions of 5 per cent strength are given intravenously an ampule of ten grains of sodium iodide as prepared for example by Mulford & Co., can be conveniently administered by placing the drug directly into the glucose solution. No untoward effects have been observed when the drug was used to the extent of ten daily injections. The average period of five to seven days is usually sufficient to produce the desired effects. Instances of unusually prolonged intravenous administration of the drug showed a rather marked, hard swelling of the thyroid gland and an excessive accumulation of colloid, much as one finds after the prolonged oral administration of Lugol's solution.

As with many potent agents which have a decidedly beneficial therapeutic value when correctly used but which when incorrectly used may produce serious and even dangerous results, so it is with iodine, the incorrect use of which is today causing untold damage and great suffering to unsuspecting patients everywhere. The surgeon is in a favorable position to see the bad results of iodine therapy. The patient with a thyroid disorder who receives iodine indiscriminately frequently develops acute symptoms of hyperthyroidism and failing to obtain relief finally consults the surgeon with reference to operation. I may mention a few types of thyroid disorder which are frequently made worse by the incorrect use of iodine. The continued use of iodine in varying amounts in cases of colloid goitre without hyperthyroidism often converts this innocuous type into the active hyperplastic gland characteristic of Graves' disease. Many cases of exophthalmic goitre which we see at the present time owe their origin to the misuse of iodine in simple colloid goitre. Adenomatous goitres without hyperthyroidism or with only mild or moderate degrees of toxicity are commonly converted into those with symptoms of acute hyperthyroidism resulting occasionally even in crisis. Leaving aside the small percentage of adenomatous goitres with hyperthyroidism in which we would suspect the presence of hyperplastic tissue comparable to Graves' disease and which would consequently respond favorably to intensive iodine treatment, we find that the majority of adenomatous goitres are activated by iodine. It has been my general rule therefore to omit iodine in the majority of cases of adenoma. In practically all of my cases of adenomatous goitre I have operated without the previous use of iodine and have never in a series of over six hundred cases had a death from postoperative hyperthyroidism or any other cause. When one is able to operate in adenomatous cases with such a degree of safety, I prefer not to use iodine at all for the cases in which it might be useful are relatively few as compared to those in which increased toxicity is engendered by its use. A considerable number of cases of adenoma have come to me in a condition of acute hyperthyroidism as a result of iodine therapy and have caused me considerable thought and anxiety as to when operation should be undertaken.

I may mention an instance of a tragic result following the treatment of early Graves' disease with iodine in varying amounts over a period of several months. A school teacher, aged 27, came to me first on June 9, 1924. She presented a typical early Graves' disease as indicated by classical moderate symptoms of hyperthyroidism such as loss of weight, nervousness, fatiguability, tachycardia, tremor and emotionalism. The von Graefe and Möbius eye signs were present. The thyroid gland was moderately enlarged, had a granular feel and showed increased vascularity as indicated by thrills and bruits. The pulse was 110. She had received general medical attention but as far as we could determine no iodine had been given. The basal metabolic rate at the Life Extension Institute on June 5, 1924, was +48.

I prescribed some suitable sedative treatment. The matter of operation was discussed but the patient wished to have a period of medical treatment. I then decided to try the effect of moderate doses of iodine over a short period. She was accordingly given four minims of Lugol's solution twice a day together with sedatives for a period of a week and then three minims three times a day for a further period of three weeks. One week after beginning this treatment the pulse had come down from 118 to 102, the symptoms had definitely improved and the patient had gained three pounds in weight. I then discontinued the iodine and she was allowed to go on her summer vacation with simple instructions as to rest and diet.

She returned for observation in November, 1924. The pulse was now 78. There were no thrills or bruits. The gland however was still quite large and she had gained thirty-one pounds. She had practically no complaints and seemed to be a medical cure. I cautioned her against further iodine.

She returned for observation again in February, 1925. The pulse was now 96. There were only mild symptoms of hyperthyroidism. She complained of amenorrhoea and had lost three pounds in weight. She consulted another physician in March, 1925. He immediately prescribed Lugol's solution in doses of three to five drops three times a day. This was continued throughout March and April. At the end of April, the patient developed what she called a "nervous breakdown." She was extremely nervous and excited and finally became unmanageable. In view of the critical nervous manifestations, her physician prevailed upon the family to remove the patient to a hospital. Under the impression doubtless that massive doses of iodine would control the severe hyperthyroidism, large doses of Lugol's solution were given three times a day while the patient was in the hospital. I could not determine the exact amount but the patient stated that she practically drank iodine solution ad lib. She said that she knew by the taste that the solution was given in great concentration and in very considerable amounts. Probably as much as fifteen to twenty-five or thirty drops were given three times daily. The patient continued to be unmanageable—she walked the floors at night, was very noisy and at times became so disturbing and even violent, that the superintendent of the institution insisted on her removal. After consultation, the family was told that the patient was essentially mentally unbalanced and needed institutional care. In a critically nervous condition she was removed to Bloomingdale Hospital on May 2, 1925. The iodine treatment was promptly discontinued. Cold packs and other treatment calculated to control the great restlessness and excitement were instituted. She remained in Bloomingdale Hospital all of May, June and July and was discharged on August 26th. At the end of this time she had improved very definitely and had returned to practically the condition noted previously in February when I saw her before iodine had been used indiscriminately. I saw the patient again in October, 1925. The pulse was 90 and there was a slight tremor. However, general improvement was noted. She weighed 158 pounds. I saw her twice between October and December, 1925, placed her on simple sedative treatment and she continued to do well. She consulted me recently again on April 19, 1927, at which time she was practically well. Her pulse was 82, she had only very mild nervous symptoms and had resumed her work as a teacher. She weighed 172 pounds. This to me was a most striking example of the acute exacerbation which may be produced in early Graves' disease by over-dosage of iodine.

In exophthalmic goitre several results may follow treatment with iodine. It has long been known that a rather small percentage of such cases will often do well after minute doses of iodine. This was known to the elder Kocher many years ago. However, the difficulty has always been of knowing which cases were suitable for this treatment. I have had a few successes in very early cases but have abandoned entirely the use of iodine excepting as a preoperative measure in the advanced cases on account of the uniformly bad results. The few successes following the use of iodine as a cure for exophthalmic goitre have probably done more harm than good for they have encouraged the present day orgy of indiscriminate dispensing of iodine by physicians, pharmacists and others in the mistaken notion that, given a goitre, iodine is always indicated. It is now a common occurrence to see results which are nothing short of calamitous following the abuse of iodine in exophthalmic goitre. Patients present themselves in a highly nervous, emotional and even irrational state frequently with a pulse rate of 180 to 200 or more. As a result, the best that can be done for these unfortunate victims is to condemn them to an indefinite period of acute suffering or to convert the acute iodine exacerbation into a somewhat less active phase by further iodine administration. Eventual cures cannot however be expected by the use of iodine even over periods of one to three years. At any time when the patient, for any cause, discontinues the iodine, the gland may again assume its former activity or become even more toxic than it had ever been before. Besides the disadvantages produced by the exacerbation of the disease iodine produces additional difficulties for the surgeon. The rapid accumulation of colloid in the gland causes it to become strikingly hard, fragile and firmly fixed about the trachea. At operation it is delivered with difficulty. The control of hemorrhage may be embarrassing since the gland substance will hardly hold a clamp or a suture.

Another error in the use of iodine is frequently seen. Most physicians appreciate that intensive iodine treatment will cause a marked fall in the metabolic rate and a striking improvement in the clinical picture of exophthalmic goitre. They therefore begin the administration of the drug with a view to subsequent operation. It happens, however, that the period of maximum improvement following the administration of the iodine is wrongly timed. The operation is not undertaken within the average period of ten days following the inception of the treatment. When the patient ultimately presents herself to the surgeon the quiescent and safe period has passed. Signs of renewed activity make their appearance and operation again becomes a matter of concern. The favorable period having been overlooked, a second intensive administration of iodine is not followed by the strikingly beneficial effects of the first course of iodine. Preliminary ligations may become advisable. I believe it is only fair to the surgeon to allow him to see the patient before the iodine is prescribed in order that he may better judge the operability as indicated by the degree of improvement and the fall in the metabolic rate. It should be emphasized that in the group of cases in which the quiescent period has been overlooked, in which relapse has occurred and finally in which further iodine administration had had an indifferent effect, the danger of postoperative hyperthyroidism is still lurking. In general, what has been said with reference to the indiscriminate use of iodine in exophthalmic goitre also holds in adenomatous goitre.

The administration of iodine to the pregnant mother with a view to preventing hypothyroidism in the child is a common practice today. Because of the demands made upon the thyroid gland in pregnancy it is doubtless rational to supply minimal doses of iodine to the mother who may have a colloid goitre. It not infrequently happens however that the differentiation is not made between a simple colloid and a hyperplastic gland. In fact, it is well known that the thyroid gland in the average healthy mother is, as a rule, more active during pregnancy. Consequently, when iodine is supplied to an already physiologically active gland the secretory function is increased. We have seen definite hyperthyroidism produced in this manner during pregnancy and continuing after delivery.

I have recently had an interesting experience in the administration of iodine to a young married woman seventeen years of age with a colloid goitre. She came to me first April 29, 1926, because of a simple thyroid enlargement without hyperthyroidism and because of the possible effects of this condition upon future pregnancy. Her physician had previously given her desiccated thyroid in amounts varying from one to three grains daily, usually in alternating periods of two weeks followed by a week of no treatment. Simultaneously small doses of Lugol's solution were given in amounts varying from one to two and rarely three minims daily. This treatment extended over a period of six months, from April 29 to the middle of October, without appreciable effects as to symptoms or signs except that the patient seemed to improve and the circumference of the neck at the level of the thyroid isthmus had diminished from 35 to 32½ cm., a very satisfactory result. The patient then became pregnant. The treatment with thyroid extract and iodine in the doses mentioned was continued and within a period of one month slight hyperthyroid symptoms developed and at the end of two months a very definite hyperthyroidism had developed. The pulse increased from 86 to 104. Mild thrills and moderate bruits made their appearance. The gland however continued to decrease slightly in size. The patient was nervous and tremulous. The condition was at once recognized and all therapy with thyroid extract and iodine was discontinued. At the next visit one month later the pulse was again 70, sypmtoms and signs of hyperthyroidism had again disappeared and her condition was as before. In the last three months thyroid extract was administered with periods of interruption in doses of gr. I daily together with M. I. or M. II of Lugol's solution with good results. I have reported this case in some detail to illustrate the fact that the thyroid during pregnancy is more sensitive to iodine and thyroid extract than at other times. Caution should therefore be exercised in the use of iodine or thyroid extract in pregnancy unless there is evidence of simple colloid enlargement without hyperplasia and without symptoms of hyperthyroidism. The matter of diagnosis becomes thus of extreme importance.

Finally, there seems to be almost a rage on the part of a great many physicians the world over, for prescribing iodine, often in enormous doses, to any and all kinds of goitre without regard to indications and type. The abuse of iodine has led to an unparalleled orgy of drug-vending by many ill-informed physicians, health centers and even the laity, not alone to goitrous patients but also to those suspected of having some form of goitre. Thus, I have seen simple cysts of the neck, lipomas, hygromas and even deep-seated tuberculous glands of the neck engulfed in the therapeutic iodine wave. In many instances, mild cases of hyperthyroidism have been acutely exacerbated and have become fulminating in their toxic manifestations. In others, the patients have been annoyed by an unnecessary iodism characterized by acne, itching, conjunctivitis and rhinitis.

In view of the striking and almost miraculous results of iodine when given under proper indications and in view of the equally appalling effects when it is administered indiscriminately and without correct indications, it behooves every physician who prescribes for goitrous patients, to thoroughly familiarize himself with the correct use of iodine. When Plummer's contribution is more generally understood and his directions more carefully followed the difficulties which I have briefly discussed will be avoided and the good results obtainable after both the medical and surgical treatment of goitre will be more universal. It behooves all of us, therefore, to spread this gospel among medical students and practitioners.

In concluding then let me briefly emphasize the following points: The administration of iodine causes hyperplastic thyroid tissue to revert to the simple colloid type of gland. Intensive iodine treatment, when given for the first time to the exophthalmic goitre patient causes a lull in the disease with marked amelioration of symptoms and signs, a fall in the metabolic rate and protects furthermore against dangerous post-operative hyperthyroidism. Further treatment with iodine has little or no effect upon patients with goitre who have received iodine over varying periods of time. Iodine causes a temporary remission of symptoms in exophthalmic goitre. Relapse and even crisis may follow in four to eight weeks following the discontinuance of iodine. Indiscriminate treatment with iodine increases the difficulties of the operative treatment and deprives the patient of the striking benefits derived from the correct use of iodine before operation. Intravenous administration of sodium iodide in doses of five to ten grains daily for five to ten days is more effective than Lugol's solution per mouth especially in patients with gastro-intestinal symptoms such as vomiting and diarrhoea. It is furthermore most useful in cases of acute hyperthyroid crisis and in patients previously indiscriminately iodized in whom the oral administration of iodine is only partially successful.

Indiscriminate use of iodine by the thyroid patient often results in the production of acute symptoms of hyperthyroidism. A simple colloid goitre may thus be converted into an active case of Graves' disease.

Adenomatous goitres without hyperthyroidism or with only mild degrees of toxicity are converted into those with symptoms of acute hyperthyroidism resulting occasionally even in crisis.

Iodine treatment in exophthalmic goitre should be reserved for the period before operation and should then be given intensively in doses of ten minims three times a day over a period of a week or ten days.

Great caution should be used in treating the pregnant woman with iodine.

CORRECTION OF PHYSICAL DEFECTS IN SCHOOL CHILDREN*

By DR. FREDERICK W. SEARS, SYRACUSE, N. Y.

THE rapidly increasing cost of public education makes it imperative from an economical as well as from a health standpoint that each individual child shall not be retarded in his educational progress by physical handicaps.

School medical examinations are absolutely necessary to discover these handicaps. The detection of physical defects is of practically no value unless through follow-up work these defects are in so far as possible corrected.

In cities and in some of the larger villages this work is progressing quite satisfactorily.

The conditions in the rural schools are in most instances deplorable. The rural school boards resent paying for school physical examinations for which they believe they get no returns.

School examiners become discouraged more from a lack of nursing assistance in securing corrections than from the inadequate pay they receive for these examinations.

To examine school children year after year and find that nothing has been done with the recommendations made the previous year does not stimulate the conscientious physican to do more thorough work nor does it stimulate the Board of Education to make better appropriations for this work. We have long felt that only by correcting these conditions and providing proper assistance from public health nurses for assisting in the physical examinations and especially in the follow-up work to secure corrections can we hope to secure better results.

Through competent nursing service provided by the Onondaga Health Association a plan was adopted by a rural health committee, appointed by that organization of which the writer was made chairman, for the purpose of making a demonstration as to the value of such assistance. The plan as worked out by the committee is as follows:

Upon request fifteen small one and two room schools which were considered to be in the greatest need of such work were selected by the five District School Superintendents of Onondaga County for the demonstration. Letters were sent to the school trustees of these schools, explaining our plan with the request that they give to the committee the names of the medical examiners who had been selected by them to examine these schools. The school examiners whose names were presented to us were told of the plan and asked if they would like such assistance and if so, to state the dates on which they wished to make the examinations in each particular school. Having obtained this information a public health nurse carrying with her the necessary equipment visited the school selected on the day previous to the date set for the examination.

On that date the nurse tested the hearing and vision, weighed and measured and made out a history card for each child. She also screened off a portion of the room to be used for the examination.

On the day of the examination the nurse presented each child to the examiner with the clothing removed down to the waist line, assisted the doctor in making the examination and carefully recorded the results. Later the records of these examinations were carefully gone over by the nurse with the physician for the purpose of checking the corrections needed, the physician informing her as to the parents whom he believed would be able to pay for the corrections needed. Following this conference each family in which there were children with defects was visited by the nurse and arrangements made for the correction of defects by the family physician if the family was financially able to have it done and through the Red Cross for the indigent families. This work was begun in September, 1925, and the results more than met out expectations.

There were enrolled in these fifteen schools 464 pupils, 432 of whom were examined. It was found that 84 per cent showed defects that should be corrected, many of them having more than one defect, the total defects being 763.

Within the first year 26 per cent of vision defects were corrected, and 55 per cent of defected teeth corrections made. Many diseased tonsils were removed and home and school conditions were improved. Toxin-antitoxin was given to nearly all of the school and pre-school children in most of these school districts.

During the past year five additional schools were examined under the same plan. The enrollment in these five schools was 485 and the number examined was 440. Defects 321. The work of correcting defects has been continued in the original fifteen schools and is being carried on in the five additional schools. In five of the original schools practically one hundred per cent defective teeth have been corrected. This includes 202 dental corrections and the removal of diseased tonsils in twenty-five additional children this year.

As a result of this demonstration the medical examiners of these schools have been encouraged to do more thorough work and we have been unable to meet the requests of all of the health officers of the county to have this work extended to their districts. The school trustees of these various districts have expressed themselves as well satisfied with the work done.

In February of this year a request for the appointment of four additional public health nurses by the Board of Supervisors of Onondaga County was so vigorously presented by all of the twenty-seven health officers of the County, by public spirited citizens and by the parents whose children had been benefitted, that the request was granted. The work is about to be formulated and it is expected that within the very near future Onondaga County will be divided into five nursing districts, each such district will have assigned to it a public health nurse who will reside in the district and will do generalized public health nursing not only for the school child, but through pre-natal and pre-school efforts to prevention of defects among school children.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

PATHOLOGY OF URTICARIA PIGMENTOSA*

By J. FRANK FRASER, M.D. and MAURICE N. RICHTER, M.D., NEW YORK, N. Y.

MICROSCOPIC examination of the lesions of Urticaria pigmentosa was made in eleven cases, seven of which were of the so-called "adult type."

The pathologic alterations in the tissues of both infantile and adult cases were the same, and consist of:

1. Pathologic mast cell accumulation in the corium.
2. Rarefaction of the collagen bundles with fraying and rupture of the elastin.
3. Increase in the amount of pigment (melanin) in the epidermis, and its presence in deeper areas.

An excess of mast cells was found in all our cases, though repeated examinations were sometimes necessary to establish this. The mast cells were chiefly about the base of the papillæ and surrounding the blood capillaries. The excess of mast cells is not, however, pathognomonic of the disease. In arsenical keratosis, for example, we have observed a cellular accumulation in which mast cells were as numerous as in some cases of Urticaria pigmentosa.

We have not found an excess of mast cells in the intervening healthy skin, nor do we find their number to be increased by irritation of the lesions.

The mast cells in the lesions of Urticaria pigmentosa are identical with those normally present in various connective tissues, but are morphologically and genetically different from the mast cells (basophilic Leucocytes) of the blood. They are not emigrated blood cells, but are formed in situ by the development of metachromatic granules in the cytoplasm of certain connective tissue cells.

The pigment in the lesion is melanin. The distribution of the pigment was investigated for us in two cases by Dr. Gilbert Dalldorf who found it present in both epidermis and corium.

The melanin in the deeper areas is in perivascular connective tissue cells. This situation brings it in close relationship with the mast cells which are also perivascular, but it is possible to determine that the pigment is not in the mast cells.

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* Abstract of a paper read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927, to be published in the Archives of Dermatology and Syphillis.

EDITORIAL

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For list of officers of County Medical Societies, see this issue, advertising page xxx.

CONFERENCE OF SECRETARIES OF COUNTY MEDICAL SOCIETIES

The Secretaries of the County Medical Societies of the State of New York met on September 15th in Albany in a five-hour session of their second annual conference, which is reported on page 1094 of this Journal. The problems that were discussed were those which must be settled by the medical profession collectively as distinguished from the individual members of that profession. The subject of Graduate Education, for example, was presented from the standpoint of the society, which makes the arrangements for a course. Attendance at the lectures and study of the topics are the functions of the individual physicians.

An individual doctor treats each workman as an individual case, but the representatives of the Medical Society assist the lawmakers and State Commissions to formulate policies and standards regarding liabilities and compensation connected with the injury.

The conference is an argument to every doctor that he shall join his county society, and take an active interest in its activities.

AMBULANCE CHASING

There are about 45,000 serious accidents in New York City every year, and the settlement of the resulting claims costs many millions of dollars. Lawyers have the profitable custom of taking one half of the awards for their alleged services in settling the claims of the victims, and the possibilities of graft are very great, especially since insurance companies often prefer to settle with the claimants rather than stand the cost of fighting them. After all, the insurance companies lose little or nothing, for they base their premiums on their losses, and if they make extra large profits because of lower claims, they have to reduce their rates, and so their profits tend to remain constant no matter how many or few the claims may be.

Almost any accident is good for a few hundred dollars graft, and the system of securing clients is well organized among lawyers of a certain class. It even extends to actually following the ambulances which go out from the city hospitals, to policemen who report accidents, and even to a few physicians who sell their services to the chasers.

The Brooklyn Daily Eagle is printing a daily column of exposure of ambulance chasing, and shows that the courts of the city are over-burdened with cases brought by a very few lawyers. It suggests that the lawyers apply their code of ethics and purge the profession of those who fatten themselves by organized solicitation of cases.

The condition of affairs is of interest to physicians, for the testimony of a doctor is needed in every suit for damages to the body.

DR. H. EDWIN LEWIS

Medical editorship lost a conspicuous leader on August 6, 1927, in the death of Dr. H. Edwin Lewis, Editor of American Medicine since 1908. Dr. Lewis was a born literary man and editor, whose talents were inherited from his mother and fostered by his wife. He founded the Vermont Medical Monthly in 1907 while he was a medical student in the University of Vermont. He edited the International Journal of Surgery while practicing his specialty of tuberculosis in New York City, and in this editorship he was succeeded by his brother, Dr. Frank C. Lewis.

Dr. Lewis was a hard worker, original and independent, enthusiastic and optimistic, and anxious that the weaker man should have his fair chance even at some sacrifice from the stronger. He represented that best type of medical editor who was anxious to obtain news of every advance in medicine and to impart it to his brother practitioners as soon as he knew it himself.

CANCER MORBIDITY

What is the number of cancer cases per thousand of population?

This question is discussed on page 809 of the September 3rd issue of the *Journal* of the *American Medical Association.* The article consists of a letter signed by Dr. F. G. Curtis of Newton, Massachusetts, and Dr. G. H. Bigelow of Boston, outlining the efforts of the physicians of Newton to secure a list of cancer cases in the city.

The letter first discussed the plan that the State Department of Health should make cancer a reportable disease; but it rejected the plan on the ground that cancer, unlike such a disease as measles, has no distinguishing mark, especially in its early stages. But the members of the Newton Medical Club voted to report their cancer cases voluntarily, and the Club appointed committees to direct the work and to establish a cancer clinic in the Newton Hospital. The following report form was adopted:

CANCER MORBIDITY REPORT FORM

Name...................... Sex.......... Age......
Address ....
Civil condition ....
Type of disease....................................
Location of disease ....
Date of first symptom..............................
Character of first symptom: Pain, Lump, Abnormal discharge ....
Date of first consulting physician.................
Has any member of patient's family had cancer........
Relationship ....
Has patient ever been in close association with a cancer patient ....
Injury in site of cancer...........................
Operation for cancer—what..........................
Operation other than for cancer—what...............
Does patient use alcohol...........................
Does patient smoke (pipe, cigar, cigarette)—chew......
Does patient have periodic craving for unusual articles of food...
What ....
Does patient eat little or much salt...............
What foods does patient never eat..................
Is patient constipated.............................
Has patient suffered from chronic disease..........

What ....How long.........
Interval between first symptoms and treatment..........
X-ray ....Radium................
Housing ....Economic status......
No. of physicians consulted...........................
No. of irregular practitioners consulted...............
Possible precancerous condition at site of disease. Mole, wart leukoplakia, ulcer, uterine tear, chronic irritation from teeth, from corsets, other known chronic irritation.

Physician's signature.................................
Address ....
Telephone number......................................

During the first seven months after the committees began work, 30 cases of cancer were reported; but during the same period 29 cancer cases died, of whom only 5 had been reported. The letter continues:

"It is realized that the response of the Newton physicians has not been as complete as might be desired, but the present indications point to an improvement in this respect. As Newton is the first city in the United States to report its cancer cases, this statement seems advisable as it indicates a method which might be used in other selected communities to add materially to our knowledge of this pressing problem. Also appreciation should be expressed of the fact that busy practitioners of a community are willing to take on this added obligation."

A report such as this is of very great value, not merely for the statistics that are developed, but because it indicates a practical way by which physicians may give direct aid to the solution of the cancer problem.

LOOKING BACKWARD

THE JOURNAL TWENTY-FIVE YEARS AGO

Infant Feeding. — The simplicity of infant feeding today is in great contrast with the complicated formulae of a quarter century ago. This Journal for October 1902 says editorially:

"The importance of exactness in all stages of experimenting in the preparation of infant food by modifying milk was insisted upon. This was a frequent cause for disagreement. One physician may believe in giving starch in the early weeks of life, while another may not. No proper deduction can be arrived at unless we know exactly how much starch each experimenter is giving and how much of the other elements of the food; only in this way can it be determined whether those who are in favor of giving starch are in the right or not.

"If human milk cannot be obtained, the most perfect substitute for it is cow's milk, which should be scientifically modified to correspond as closely as possible not only with human milk in general, but with the human milk that is consumed by each individual child. A careful study of human breast milk demonstrates that it is a varying compound with the three essentials of food—namely, fat, sugar and proteids; that the percentages of these elements are far from constant, not only in different individuals, but also in the same individual under varying circumstances. Human breast milk, then, is a varying food. This fact should be noted and due weight be given it in preparing a substitute food, so that the greatest variety of percentages of the different elements of the milk may be obtained, as well as a great variety of combinations of them, according to the judgment of the physician. The percentages and the ingredients should be determined not by any given standard of the average in mother's milk, but by the study of the needs of the individual infant. From this principle has arisen the system of milk laboratories, where the needs of individual patients can be met with exactness, and the different elements of the food may be prescribed with the same precision as a prescription for medicine. This, Dr. Rotch claims, has been accomplished in America by the Walker-Gordon system of laboratories. Not only are ingredients of importance, but percentages of these ingredients are essential to the construction of the best food. . . .

"The cream of the Holstein breed is a much finer emulsion than that of the Jersey cow; moreover, when broken down the emulsion is much more easily restored—that is, it emulsifies better and resists a destruction of its elements, such as occurs when cream is produced —than the cream of the Jerseys and the Guernseys."

All this is in contrast to the modern conception that babies are not merely delicate chemical laboratories to be run by the doctor and nurse, but living mechanisms with wide powers to adapt their own chemical reactions to the needs of their bodies.

MEDICAL PROGRESS

Some Medical and Psychological Aspects of Tattooing.—Writing in the *British Journal of Dermatology and Syphilis,* July, 1927, xxxix, 7, Morris J. Cohen states that tattooing is probably as old as the human race. In many respects it is a primitive stage of and substitute for clothing. Perhaps it is a display of the decorative instinct, and unquestionably it is often employed as a sex lure. The psychological make-up of the tattooed is frequently apparent from the subjects displayed by the indelible marks. Some tattoo marks give evidence of Freud's Œdipus complex. There is some evidence that among the tattooed venereal diseases are rifer than among the non-tattooed. A nonsensical notion exists among some classes of the laity that tattooing is a protection against venereal disease, and also that it replaces vaccination. Not long ago a rumor spread through a portion of the Indian army and elsewhere that medical men preferred tattooing to vaccination. This outrageous falsehood was immediately refuted. Tattooing may become a dangerous process. Syphilis, tuberculosis, erysipelas, septicemia, abscess, etc., have been contracted in this way. Ernest Mallan has recently recorded a case of epithelial papilloma of doubtful malignancy originating in a tattoo mark in which the pigment was regarded as the causal agent. Eczema may follow, and persist only in tattooed areas, and in several instances coming under the author's observation the design was obliterated through sepsis. Frequently attempts have been made to remove the marks. In ancient Roman days cantharides was used to eradicate the pigment. Nowadays the most efficacious methods are excision of the pigmented areas, harpooning of the pigment granules, and the use of the galvano-cautery under local anesthesia. Another method, that of Variot, consists in rubbing in lunar caustic and tannin. This leads to inflammation, and thereafter a necrotic scab is thrown off. This process takes a great deal of time and is painful. According to Buchanan, applications of strong acetic acid, potash, hydrochloric acid, and glycerole of papain have been employed for the removal of tattoo marks.

Passive Immunization Against Tetanus by the Cutaneous Route.—A. Besredka and S. Nakagawa conclude from the results of a series of experiments on guinea pigs that antitetanic serum, when applied to the shaved skin 24 hours before the toxin, preserves the animals from tetanus. If applied from 1 to 3 hours after the toxin this antitetanic dressing protects from fatal tetanus although the animals develop transitory tetanic troubles. When applied in liquid form as a dressing the serum acts especially on the tetanic toxin present in the area of the dressing. In other words it exerts a local action. Applied in the form of a cream it may act further on the toxin injected at a distance. In no case did any anaphylactic action develop from this application of the serum. Thus the principle which had been found efficacious against virulent infectious cocci has been found to apply equally to the bacteria which produce only a toxin. The antivirus of pyogenic cocci, however, has been used successfully as a local application to actual lesions and whether or not this new use of tetanus antitoxin will neutralize the toxin in actual clinical wounds in mankind does not come up for consideration, for the experimenters dealt only with laboratory tetanus. Antitoxin has often been applied locally to wounds but apparently only in conjunction with the injection treatment.—*Annales de l'Institut Pasteur,* June, 1927.

Tetanus Following Parasitism of the Sand Flea (Jigger).—Dr. W. Rohardt of Rio Grande, Brazil, has seen four cases in which tetanus developed in ulcers of the feet due to infestation with the sand flea. At first sight the fact that tetanus infection occurred in ulcers of the soles in subjects who habitually walk barefoot in soil which reeks with horse manure, garden earth, etc., would not seem remarkable, but this source of tetanus does not seem to be an ordinary one and the author saw his four patients within the space of six weeks which gives the disease a sort of epidemic quality. The female sand flea deposits its ova beneath the skin and these give rise to maggots which penetrate and cause various types of lesion—"boils," burrows, fistulæ, and open sores. Lesions are common on the soles and between the toes and the author has seen particularly dirty individuals with hundreds of boil-like lesions on the surface. The infestation commonly passes as something quite harmless. Clinically the cases were a surprise for the tetanus antitoxin, given early and in all forms, proved a total failure in the first two patients treated—a boy of 6 and a woman of 50 Death took place on the third hospital day. When the other patients were admitted the author feared to trust the serum at all and placed both on large doses of chloral which kept down the seizures and allowed the patients to recover. The first of the recovered cases occurred in a strong boy of 14 who was discharged inside of 3 weeks, while the second patient, a consumptive epileptic, was under treatment 5 weeks.—*Münchener medizinische Wochenschrift,* June 24, 1927.

Prevention of Rheumatic Heart Disease in Children.—After quoting statistics showing the prevalence of rheumatism and heart disease in early childhood, J. F. Halls Dally deplores the lack of consideration that has been given to the preventive aspect of rheumatic heart disease in children. In general, statements are made to the effect that in onset rheumatism in childhood is insidious, in aspect protean, and that the appearance of very slight symptoms, such, for example, as sore throat or stiffness of the muscles, should put one on guard against the possible development of definite stigmata of rheumatism. Yet at the very time that a child complains of "growing pains" or of sore throat, that child may already be the victim of rheumatism, and acute and unmistakable symptoms may rapidly supervene. The early recognition of rheumatism in children is exceedingly difficult. That so little has been done in the way of prevention is not to be wondered at when one considers our lack of knowledge as to the exact etiology of rheumatism. The author urges that a broader view of the etiology be taken—that while the incidence of streptococcal infection in certain instances cannot be denied, it is more in accord with our present imperfect understanding to assume that such infection is incidental rather than causative, and, similarly to tuberculosis, occurs only when some special character of soil, *i.e.*, the rheumatic diathesis, promotes its evolution. As our appreciation of the causal factor or factors of the "rheumatic" diathesis is slight, in order to grapple effectively with the problem it is essential that the life histories of potentially disposed children should be carefully studied over long periods, side by side with those of actually rheumatic children, contrasting with these groups children who are debilitated from other causes, and at the same time taking healthy children of equivalent ages as controls. A beginning has been made along these lines by the establishment in 1926 of a "Children's Cardiac Clinic" at the St. Marylebone General Dispensary. To this clinic children are brought for examination whenever possible prior to the manifestation of rheumatic symptoms, and for treatment where the disease already exists. An effort is made by timely advice and appropriate therapy to raise the *vis resistentiœ* of the three chief tissues vulnerable to attack, namely, the muscles—including the heart—the skin and the mucous membranes, of the child against adverse climatic and other influences. In this way it is believed that weakly children of rheumatic stock may be aided to work out their own immunity. —*The British Journal of Children's Diseases*, April-June, 1927.

Symptomatology of Acrodynia as Indicating an Allergic Origin.—Arthur C. Helmick (*Archives of Pediatrics*, July, 1927, xliv, 7) traces a close analogy between the symptoms of acrodynia and those of allergy, and urges that in investigating the etiology of the disease the possibility of its being a form of allergy be taken into consideration. The constant symptoms in acrodynia are the nervous symptoms, the skin changes, and the alteration in the hands and feet. If one holds in mind the six most common allergic phenomena, namely, cyclic vomiting, urticaria, eczema, rhinitis, asthma, and angioneurotic edema, one can mould such a striking resemblance to acrodynia that it does not seem possible to question their relationship. With reference to the nervous symptoms, the sudden onset, profound discomfort, constant rubbing and scratching when any part of the surface of the body is exposed, are common to both conditions, and suggest that the general effect is not that produced by an illness, but rather that coming from external sources, such as might result from constant skin irritation. Practically every evidence of skin disturbance in acrodynia is paralleled in eczema or urticaria, and regardless of the severity of the skin lesion in either instance, there are always points of similarity. The symptoms referable to the hands and feet typify an allergic reaction to such a degree that any other conclusion as to their origin would scarcely be considered. The nose and throat symptoms of acrodynia have their exact prototype in rhinitis and hay fever. The mouth condition is the natural result of obstructed nasal passages, whereby the oral cavity becomes a welcome host to pathogenic microorganisms. By some, important significance has been attached to enlarged lymph glands, and suspicion has been aroused of their harboring infection. If the disease were due to infected lymph glands these would always be enlarged, but this is not true in acrodynia. In the author's series, the degree of glandular involvement depended upon the severity of the skin invasion. Symptoms referable to the chest and abdomen also parallel those caused by allergy. The irregular laboratory reports in cases of acrodynia are very much the same as those noted in allergy, and evidence the possibility of disturbed metabolism. In neither acrodynia nor allergy has there been a constant reaction to any type of therapy. In determining the correctness of this hypothesis as to the etiology of acrodynia, the author urges the importance of studying hereditary tendencies, blood chemistry, especially as to calcium content, and the reaction of the individual to calcium and adrenalin.

Abdominal Stitch in the Side.—H. Herxheimer discusses in the *Deutsche medizinische Wochenschrift*, July 1, 1927, this very common symptom, concerning the nature of which so little is known. It is believed by some old and recent writers to proceed from the spleen. The author refers to the familiar pain in the side after intense exertion, but it has been shown in such cases that the spleen is not swollen but considerably contracted. The author examined 42 older children and adolescents in regard to this symptom, obtaining answers to his questions, and in addition made a careful physical examination. He sums up what is known as follows: stitch in the side is most common in persons between 10 and 20 years of age and follows only on certain kinds of exertion in which there is a steady rhythm, such as walking and running. It subsides spontaneously when the exertion ceases. It is most apt to supervene after a meal and there is no association between the violence of the exertion and severity of the pain. The seat is always abdominal and hence it is quite unrelated to sensations in the thoracic wall. It is not a phenomenon of exhaustion for it may supervene early, before the exercise has become vigorous. Neither the spleen nor the liver is concerned in its production. The frequent supervention with filled stomach makes it likely that the suspensory ligaments and folds of the stomach and intestine play a rôle. It has sometimes been possible to relieve the stitch by strongly compressing the abdomen. We do not, of course, know the exact mechanism, but the writer believes it is somehow connected with the rhythm of running, etc., which is transmitted to the supporting folds of the stomach when the latter is filled.

Insulin in the Treatment of Pregnancy Toxemia.—Professor E. Vogt of the Tübingen University Gynecological Clinic sums up the results of an exhaustive theoretic and practical study of this subject as follows: Pure insulin therapy has only a symptomatic value in this group of affections but when glucose is added the combination therapy is of a distinctly causal nature. This treatment can be carried out only in hospital practice and under the most rigid control, checked up by urine and blood examinations. In the mild type of hyperemesis the simple insulin treatment may suffice, but in all others glucose must be given intravenously with reference to the general condition, weight, and degree of acidosis. In no case in which interruption of pregnancy seems indicated should we fail to use the insulin-glucose treatment first. In eclampsia the treatment must be strongly individualized, and in the more severe cases it is best to speed up delivery and if the convulsions persist to give the combined treatment. Dosage must be strictly individualized on a basis of blood and urine finds, weight, etc. In the medium and mild cases of eclampsia it is possible to use conservatism and expectancy and any of the plans in use may be sufficient. Whether the combined treatment has any advantages over the older methods must be decided later. This should be superior to the narcotic method of treatment because of its causal character.—*Klinische Wochenschrift,* July 9, 1927.

"Polycythemia Hypertonica." — F. Parkes Weber, writing in the *British Medical Journal,* July 16, 1927, ii, 3471, calls attention to the fact that in typical cases of splenomegalic polycythemia (Vasquez-Osler disease), in spite of the extremely high so-called "blood viscosity" (due to the great excess of erythrocytes in the blood) the blood pressure is only slightly if at all above the normal, and the heart is scarcely if at all hypertrophied. The so-called "polycythemia hypertonica" without splenomegaly, to which F. Gaisböck drew special attention in 1904 and 1905, seems probably to be a secondary or symptomatic polycythemia, connected in some way with the persistent high blood pressure of early stages of granular kidney, or with primary arterial hyperpiesia without definite signs of renal disease. The syndrome is not rare, occurs chiefly in middle-aged persons, probably more frequently in males, and perhaps Hebrews are more often affected than others. From true splenomegalic polycythemia it is distinguished by the absence of splenomegaly, by the higher blood pressure, and the absence of marked facial cyanosis. The syndrome may represent merely a phase in the course of a case of high blood pressure, the polycythemia disappearing after a time, though the high blood pressure persists or increases. Weber describes an illustrative case in which, in 1920, the erythrocyte count was 8,000,000, the hemoglobin 130 per cent, and the systolic blood pressure 180 to 210 mm. Hg. In 1927, the systolic blood pressure was 205 mm. Hg, and the diastolic 150 mm.; the blood count showed erythrocytes 5,100,000 and hemoglobin 90 per cent. The urine examination indicated an early stage of granular kidney. In spite of business and other worries, this patient's general condition has, on the whole, remained remarkably good. This suggests the question of polycythemia being a somewhat favorable sign in cases of persistent high blood pressure and early granular kidney. Weber thinks it must be taken as of relatively favorable prognostic significance, inasmuch as polycythemia, as Del Baere points out, to some extent relieves the heart from overwork (the increased number of red cells carrying a greater supply of oxygen to the tissues) and thus delays the effects of persistent high blood pressure.

Latent Stricture of the Urethra as a Cause of "Medical" Nephritis.—L. Bouchut and P. P. Ravault publish three cases of this nature, in stating that this association of cause and effect is commonly overlooked, referring of course to medical nephritis only and not to the surgical form of pyelonephritis from back pressure. The first patient apparently suffered from subacute medical nephritis with albuminuria, edema, and high blood pressure. There were no disorders of micturition. On this background an acute exacerbation developed with hematuria and at the urologic clinic of Professor Rochet a tight urethral stricture was discovered. The urethra was dilated and the patient began to improve. Three years later he was in relative health, with blood pressure down to nearly normal. A little pus remained in the urine with slight nitrogen retention. The authors appear to believe that an ascending nephritis had been added to a previous chronic nephritis although the marked improvement following dilatation suggested that the entire process dated from the stricture. The second case ended fatally and autopsy revealed an old interstitial nephritis with an exacerbation due to urethral stricture and ascending infection. Dilatation had been interrupted by a fatal pneumonia. The third case resembled the preceding, but the patient's life was cut short by cancer of the stomach. The thesis of the authors seems to be that even the long standing "medical" nephritis of these patients might have been due originally to the presence of the ancient strictures, although the mechanism would necessarily have been different from the superadded ascending nephritis of later years.—*Journal de médecine de Lyon,* June 5, 1927.

Swine Plague in Man.—Dr. Schnitter of Offenbach describes a recent epidemic occurring in his city, a paratyphus-like malady attributed to infected ice. At first there seemed to be no doubt of the correct diagnosis of paratyphus as based on the finds in the blood, stools, and urine and in the suspected ice, but the epidemiology differed from that of paratyphus in some respects and Professor Braun of the Hygienic Institute, Frankfurt, was able to show that the offending organism was not that of paratyphus but the closely related organism of swine plague, which stands nearest to paratyphus B. Doubtless in the past swine plague has often masked infections of the paratyphus group. Clinically as well as bacteriologically the analogy between the two affections is striking, but as already pointed out the epidemiology must be taken into account. In this episode 150 individuals had partaken of ice, which was artificial and not prepared under hygienic inspection. Victims and suspects were promptly isolated and the ice condemned, but while the epidemic was soon checked not much light was thrown on the problem of ice infection. The most probable view is that the ice manufacturer's wife was a carrier. She did not develop the disease herself but her stools were found to contain the bacillus, although for a few days only. Before taking up the ice business the couple had farmed and the woman had tended the pigs. The domestic arrangements of the couple were crude and presumably insanitary and there were various ways in which the ice could have become infected after the water had been boiled on the hearth fire—during cooling and after coming out of the machine. Two days' supply was made at a time. The woman took the ice cakes from the machine with a common ladle and gave them out to consumers. Bacteriological examination of apparatus was negative.—*Muenchener medizinische Wochenschrift,* June 17, 1927.

The Cause and Prevention of the Increasingly High Mortality in the Acute Surgical Abdomen.—John O. Bower quotes statistics showing that in England and Wales from the years 1913 to 1923 the mortality from appendicitis increased 7.3 per cent, and in the United States it increased 22.3 per cent. During the past ten years the increase of the death rate from appendicitis was 9 per cent greater than that from cancer. In an analysis of 1,010 cases of acute surgical abdomen, Bowers found that the abnormally high mortality rate was due for the most part to the loss of time between onset of symptoms and operation. This can be prevented by the education of the public through the family physician. The conditions included in this series of 1,010 cases, in the order of their importance, were appendicitis, intestinal obstruction, acute perforation of the duodenum or stomach, acute pancreatitis, ectopic pregnancy, and acute perforation of the gall-bladder. In ectopic pregnancy nature will, in the majority of cases, take care of the bleeding. An individual suffering from a perforated gall-bladder, duodenum, or stomach, or from acute pancreatitis, will demand relief. It is, therefore, acute appendicitis and intestinal obstruction that require consideration, because of (1) the insidiousness of the onset, (2) the patient's delay in calling a physician, (3) the frequency with which laxatives have been adminstered, and (4) the delay due to the physician's temporizing with the patient and the family. As a rule, severe abdominal pain in patients who have been previously well, and which lasts as long as six hours, is caused by conditions needing surgical intervention. The reduction of time between the onset of symptoms and operation can be successfully brought about by obtaining the cooperation of the staff and physicians who refer patients to the hospital. This has been done at the Samaritan Hospital, Philadelphia, by sending a letter emphasizing the importance of diminishing the time between the onset of symptoms and operation, of education relative to the use of laxatives in the presence of abdominal pain, and of recognizing the fact that the time element affects the prognosis. Gangrene may occur as early as five hours and perforation as early as twelve.—*American Journal of the Medical Sciences,* August, 1927.

LEGAL

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A BRIEF EXCURSION INTO EARLY MEDICAL LEGISLATION

There is a study of amazing interest in the early laws governing the practice of medicine. The problems with which we all are so familiar apparently are not new. Many of the difficulties which we are now called upon to combat are almost as old as the white settlement upon Manhattan Island. The struggle of the medical profession to protect the dignity of its calling and to safeguard the public against charlatanism, dates back more than 250 years.

The earliest record of any act regulating the practice of medicine is found in the old Dutch annals. On the 2nd of February, 1652, the old Dutch archives instruct us that "On the petition of the chirurgeons of New Amsterdam, that none but they alone be allowed to shave; the director and council understand that shaving doth not appertain exclusively to chirurgery, but is an appendix thereunto; that no man can be prevented operating on himself, nor to do another the friendly act, provided it be through courtesy, and not for gain, which is hereby forbidden. It was then further ordered that ship-barbers shall not be allowed to dress any wounds nor minister any potions on shore, without the previous knowledge and special consent of the petitioners, or at least of Dr. La Montague."

Legislative attempts to interfere with or undermine the sacred confidential relationship existing between patient and physician, then as now met with the opposition of the medical profession. In December, 1657, a city ordinance was passed by the schout, burgomaster and schepens giving notice "to all chirurgeons of the city, that when they are called to dress a wound, they shall ask the patient who wounded him and that information thereof be given to the schout."

In 1664 the English, under the command of Col. Nicolls, the personal representative of the Duke of York, appeared in Manhattan Bay and wrested possession of the island from the Dutch. In the following year a code of statutes known as the "Duke's Laws" was enacted. One of these laws related to "Chirurgeons, Midwives, Physicians" and provided, "That no person or persons whatever employed about the bodys of men, women or children, for the preservation of life or health as chirurgeons, midwives, physicians, or others, presume to put forth or exercise any act contrary to the known approved rule of art in each mystery or occupation, or exercise any force, violence, or cruelty upon or towards the body of any, whether young or old, without the advice and consent of such as are skilful in the same art (if such may be had), or at least of some of the wisest and gravest then present, and consent of the patient or patients if they be mentis compotes, much less contrary to such advice and consent, upon such severe punishment as the nature of the fact may deserve; which law, nevertheless, is not intended to discourage any from all lawful use of their skill, but rather to encourage and direct them in the right use thereof, and to inhibit and restrain the presumptuous arrogance of such as, through confidence of their own skill or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the body of young or old, one or other, to the prejudice or hazard of the life or limb of man, woman or child."

From time to time thereafter numerous statutes were enacted covering the medical profession and designed for the protection of the public health. In 1715 a law was passed exempting physicians and surgeons from performing the duties of constable or tax-collector, and fifty years later a statute was enacted exempting physicians from performing military duty except in case of an invasion.

In the same year, 1755, an act was passed to prevent "infectious distempers" from being brought into this colony and to hinder the spreading thereof. In the following year a law was passed to appropriate money raised by divers lotteries "for erecting a college and pest-house," and two years later another statute was enacted to prevent the bringing in and spreading of "infectious distempers in this colony." In 1763 a law was passed regulating the practice of inoculation for small-pox, and four years before the Declaration of Independence a statute was enacted for the better support of the hospital to be erected in the City of New York for poor and indigent persons.

The most important law of this period provided for the general regulation of medical practice. This statute, passed in 1760 by the General Assembly of the province, ordained that "no person whatsoever should practice as a physician or surgeon, in the city of New York, before he shall have been examined in physic or surgery, and approved of and admitted by one of his majesty's council, the judges of the supreme court, the king's attorney general, and the mayor of the city of New York, for the time being, or by any three or more of them, taking to their assistance for such examinations such proper person or persons as they in their discretion shall think fit." The penalty under this statute for practicing medicine without a license was the forfeiture of the sum of "five pounds" for every such offense.

From the earliest times statutory efforts were being made for the protection of the public health. Infectious and contagious diseases or "infectious distempers" as they were then called, was a subject frequently before the legislature. In 1784 an act was passed to prevent the bringing of "infectious distempers into New York City," and by this law Bedloe's Island was made a quarantine station. At that time yellow fever was the most feared of the contagious diseases, and special precautions were maintained in regard to ships from southern ports which landed in our waters during the warm season.

New York City was a pioneer in quarantine regulation. It was not until 1796 that regulations of this kind were extended to other cities, when quarantine was established at Hudson and at Albany. By this law a physician was appointed to inspect vessels that entered the harbor, and for this inspection he was allowed a fee of twenty-eight shillings or about seven dollars, but carrying at that time a purchase value of probably about twenty-five dollars in our money. It was at this period that through an act of the legislature Governor's Island was set aside for quarantine purposes, and temporary buildings and tents were erected to care for infectious cases.

1792 saw the enactment of a law governing the practice of medicine in the City and County of New York. This law required that before being licensed to practice a student of medicine should study with some authorized practitioner for two years if he were a college graduate, and for one year longer if he had not had the benefit of a college education. After this study, he was required to be examined by three medical practitioners other than those with whom he had studied, and this examination was carried on in the presence of the Governor and certain other public officers. For practicing medicine without a license, a fine of seven pounds sterling was imposed, and it was further provided that an unlicensed practitioner could not maintain an action to recover compensation for his services.

Five years later a more stringent act to "regulate the practice of physic and surgery in this state" was carried through. An examination of the records reveals that New York State was from the very beginning a pioneer in medical legislation. The impetus which gave rise to these early statutes was the contemporaneous recognition of the low estate to which the medical profession had fallen, due to the fact that in the new and unsettled regions quackery had flourished without restraint.

"Few physicians among us are eminent for their skill," wrote William Smith, the colonial historian of New York, in 1758. "Quacks abound like locusts in Egypt, and too many have recommended themselves to a full practice and profitable subsistence. This is the less to be wondered at, as the profession is under no kind of regulation. Loud as the call is, to our shame be it remembered, we have no law to protect the lives of the king's subjects from the mal-practice of pretenders. Any man, at his pleasure, sets up for physician, apothecary and chirurgeon. No candidates are either examined or licensed, or were sworn to fair practice."

There were no chiropractors in 1767, but apparently there were those from whom the chiropractors and other modern day cultists may trace their lineal descent. At that time (nine years before the Revolution), Dr. Middleton wrote:

"Yet, many, too many, are the instances, even in this place, of men, otherwise valuable for their penetration and good sense, who have given up their own judgments to the opinions of the credulous vulgar; and joining in the belief of nostrums, or secret cures, have countenanced and even employed the most obscure and superficial traders in physic. While the practitioner of modesty and real merit, conscious of his own integrity and knowledge, and scorning the little arts of such licensed freebooters and secret homicides or to stoop to the unreasonable humors or petulance of every simple employer, has often had very circumscribed practice; or has been abandoned in favor of some ignorant or mercenary sycophant. This conduct in such men will ever discourage genuine worth and the prospect of farther discoveries in that useful profession; which in all time, and among all polite nations, has ever been esteemed honorable, and worthy of men of the first rank and learning.

"Such being the state of physic here, what wonder is that this city should be pestered in so remarkable a manner with the needy outcasts of other places, in the characters of doctors; or that this profession of all others, should be the receptacle and resource for the refuse of every other trade and employment? The wonder indeed is that we should be such dupes to their effrontery as to employ them, or buy their pernicious compositions; not that they should frequent so beneficial a market. So amazingly easy of belief are some people in these miracle-mongers, that, as if there was something creative in the name of Doctor, seldom any other test of their skill is required than their assuming that title; so that this appellation with a competent presence of mind and a string of ready-coined cures, carefully propagated by such as find their account in carrying on the cheat, have seldom failed of procuring traffic in New York."

Quackery then, and the desire of charlatans to prey upon credulity flourished in our State while it was still a colony of Great Britain. How the effort to combat this evil led finally to the organization of the New York State Medical Society in 1806 will form the subject matter of a later editorial.

WRONG DIAGNOSIS OF PREGNANCY

The patient had been under the care of various physicians for some period of time. She discharged such physicians from further care and about July 1st engaged the defendant. Upon his examination this physician found the patient in a toxic condition, urine loaded with albumin, granular casts, bood and pus cells. Her menstrual history indicated that she was several days past due. A vaginal examination did not reveal any information. A diagnosis was made of nephritis, complicating an early pregnancy. Assisted by another physician and after the proper and necessary precautionary steps were taken in the preparation of the patient, on July 5th a curettage was performed under a general anaesthesia. No demonstrable fetus or placental tissue was removed. After the performance of the curettage the urine returned to normal and remained so during frequent observations during the following year. About fifteen months after the first visit the patient again consulted the defendant seeking advice as to whether or not pregnancy would be attended by danger to herself. At that time she was advised of the possibility of the return of the previous symptoms. The patient expressed a desire to become a mother and decided that she would do so at her own risk. Shortly thereafter this physician was called to the home of the patient to attend her for vomiting. At that time he found that she was several weeks past her menstrual period and showed evidence of pregnancy. He observed her for about two weeks, after which time the heart became irregular in action and albumin and casts were present in the urine. She was removed to a hospital and a second curettage performed, at which time a small mass of placental tissue was removed from the uterus with some difficulty. The patient's condition becoming poor during the course of the operation, operative procedure was discontinued. On completion of this operation the urine again cleared of albumin, vomiting had lessened and after about five days the temperature became normal.

After the operation the patient stated that she felt much improved, but complained of occasional vomiting, but after about four days no further complaints of vomiting were made. She was discharged from the hospital about two weeks after the operation. Several weeks later the patient's husband called at the physician's office, at which time he paid part of the bill and stated that his wife was in good condition. A few days later the defendant physician called at the patient's home at which time he found a nurse and the patient's aunt in attendance upon her. Another physician had been called in to attend the patient and he had advised her that she was suffering from liver trouble. On this visit the patient told the physician that she had become dissatisfied with his treatment and for that reason had called in another physician. The defendant physician then withdrew from the treatment of the patient and heard nothing from her until about three weeks later when he was called to the patient's home. At this time he was shown a fetus apparently about eight weeks in size and apparently dead for some time, which the patient stated she had passed on the previous night. She told the doctor that out of consideration for him and owing to the fact that he had previously saved her life she wanted him to see the fetus. The patient also told the defendant physician that a drugless physicians of the city had, during her last attack, been called to attend and treat her.

Several weeks after this occurrence the defendant received a letter from the patient and her husband claiming that he was responsible for the expenses arising out of her last illness and that if he would send them a receipted bill for the unpaid balance which they owed him, they would be content. He made no reply to this request. This physician shortly thereafter received a request from an attorney of the city advising that the patient had put into his hands for collection the expenses which the patient claimed to have incurred by reason of the last operation and treatment. This attorney, however, would not bring suit against the defendant physician. However, the matter finally came into the hands of other attorneys who instituted an action against the physician charging him with negligence in his treatment of the patient, further claiming that he had wrongfully diagnosed the patient's condition, failed to discover the fact that she was pregnant and by his curettage had caused the death of the fetus, requiring her to submit to a further operation and subsequent treatment.

After a two day trial the jury returned a verdict in favor of the defendant physician.

PERITONSILLAR ABSCESS

Actions were instituted by both the husband and the wife against a physician, the husband suing to recover for loss of his wife's services and the wife who was the patient of the defendant physician, charging negligent and careless treatment of her throat, also charging that the surgical work of the defendant physician was so negligently performed that the patient's throat was extensively injured and not improved, but generally in a worse condition than at the time of the commencement of the treatment by the defendant physician.

The defendant, specializing in laryngcology, in the early part of February was called to the home of the plaintiff where he found her complaining of a sore throat. Upon examination he diagnosed her condition as a peritonsillar abscess. After properly preparing himself and the field of operation and sterilizing his instruments he made an incision in the tonsils at a point where he believed the abscess was forming, but as the abscess had at that time not gotten into a pussy condition no pus was exuded. He left the opening made by the incision and advised the patient to use hot water as a gargle to bring the abscess to a head. On the following morning he was called by the patient's husband who stated that his wife was no better. The physician advised that the hot water gargle be continued. Nothing further was heard from this patient until the institution of a malpractice action.

A physical examination was made of the patient several months later at which time the patient stated to the examining physician that her throat had been injured and that she had suffered blood poisoning from the incision made by the defendant. She further stated that she had been suffering from a sore throat for two or three days and went to the doctor's office. That he cut out her tonsils, that she now has a heart murmur and general weakness and has lost much weight and strength and was confined to bed for about five weeks. Upon examination the physician found that the plaintiff had a mitral murmur and irregular pulse, no joints were affected and her color was good. Just above the left tonsil he found a healed scar of incision about one inch long which, at the time of examination was perfectly healed and gave no trouble. With the exception of the heart action the plaintiff appeared to be in good condition. The examining physician felt that the defendant physician had rendered the necessary and proper treatment to limit the spread of the infection which was present in the tonsil and prevent possible damage from such infection.

This action not being prosecuted by the plaintiffs, on motion of the defendant it was dismissed for lack of prosecution.

NEWS NOTES

CONFERENCE OF COUNTY SECRETARIES

The Annual Conference of the Secretaries of the County Medical Societies of New York State was held on September 15 in the Ten Eyck Hotel, Albany, with the representatives of 38 counties present. The meeting was opened at 11 o'clock by the Secretary of the Medical Society of the State of New York, Dr. D. S. Dougherty, who presided. Luncheon was served in the meeting room at 12:30, and the Conference adjourned at 4 o'clock.

Dr. Dougherty, in opening the Conference, referred to the importance of the office of secretary of a county medical society, and said that a good secretary was sometimes lost by making him president of his society. Dr. Dougherty also stressed the need that the secretary should keep out of the politics of his society, but that he should act as advisor in all the activities of the society.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, gave a fifteen-minute address. He said that he had filled every office in the Dutchess County Medical Society, and that the office of secretary, which he had filled for many years, was the most important. He spoke especially of the special work of organized medicine in the field of preventive medicine. While the physicians of New York State have made great progress in the field of curative medicine, especially by the extension of hospitals into rural districts, the doctors here and there throughout the State have also engaged in public health work through their county societies. The scope of the work has been sufficiently varied and standardized to demonstrate the probability that physicians in every county will assert their leadership in all forms of activity connected with preventive medicine and public health. Dr. Sadlier especially emphasized the need that every county society should have an active committee on public health and public relations so that physicians should be more than mere followers of lay public health organizations and endorsers of their plans, but should assume the leadership in forming and directing those policies.

Dr. Harry R. Trick, President-elect of the Medical Society of the State of New York, said that the duties of his office were not clearly defined, and were concerned with future expectancy rather than present reality. However, he has been active in visiting county medical societies and becoming acquainted with their officers and learning the problems that are peculiar to every locality. The scope of the work of county societies is increasing at a rapid rate which becomes apparent to the officers of the State Society as they visit the county societies.

The work of the principal committees of the State Society was next described by representatives of the committees. Dr. W. W. Britt, Chairman of the Committee on Economics, of the Medical Society of the State of New York, outlined the work of the Committee, and said that he had made studies, and gave advice along five lines:

1. The service of a county society to its members.

2. The service of a county society to the officers of the State Society.

3. The service of a county society to the public.

4. The service which lay organizations can render to medical societies.

5. The relations of organized medicine to the workmen's compensation law.

The Committee on Economics had been especially active in the field of workmen's compensation. Last winter 150 bills on compensation had been introduced in the Legislature. These bills were of a varied and contradictory scope, and affected physicians and injured workmen in a vital manner. Yet the opinions and advice of the physicians were largely ignored because the leaders in both labor and capital had formed a prejudiced opinion of scientific medicine by their observation of a few professional men who had grafted on both the workmen and the employers. But when the representatives of the Committee on Economics had explained the point of view of the members of the medical societies, the law makers, the labor leaders, and the capitalists all assumed a more favorable attitude toward physicians.

The great variance in the policies of all the parties concerned with workmen's compensation had led to the appointment of an industrial committee composed of representatives of all the groups. Dr. Britt had represented the State Medical Society in the monthly meetings which were held. The legislative bills have been discussed at length, and the opinions of the doctors have received due consideration. This industrial committee has done much to clarify the whole question of workmen's compensation.

Dr. Britt also discussed the relations of county medical societies to academies of medicine, and quoted the action of the Academy of Medicine of Buffalo, and of the Erie County Medical Society by which the two bodies should apportion their activities, leaving the field of scientific medicine to the Academy while the county society assumed the direction of public health activities. The two organizations had already united their two publications in a single monthly to be called the Bulletin of the Medical Society of the County of Erie and Buffalo Academy of Medicine. Dr. Britt warmly commended this action as an example of the unification which is taking place among physicians and their organizations.

Dr. J. S. Lawrence, Executive Officer of the Medical Society of the State of New York, gave a brief outline of the plans of the Committee on Public Relations, and said that the Committee had planned to hold conferences with public health organizations other than medical societies. It had held five conferences with the State Charities Aid Association, and would hold one with the State Department of Health on November eleventh. It also plans to confer with the State Department of Education, the State Department of Mental Hygiene, and the Red Cross.

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, discussed the activities of the Committee, and said that physicians are adapting themselves to the changing conditions, especially in the practice of public health and civic medicine. The most acute civic problem before physicians at present is that concerning the establishment of county health departments. That problem is a challenge to physicians—that they shall assume the leadership in its solution, and shall prepare themselves to give the proper service when the departments are established. The leadership of the physicians through their county societies is unquestioned in some counties, and is being attempted in others.

Dr. Farmer also spoke of the educational work of his Committee, and said that it was prepared to provide single talks as well as courses of lectures. He urged the societies to send their requests early, so that the Committee may apportion its funds and efforts.

Dr. H. L. K. Shaw, Chairman of the Committee on Legislation, urged the county secretaries and the chairmen of legislative Committees to respond promptly to calls when the legislative session opens.

Dr. Frank Overton, Executive Editor of the New York State Journal of Medicine, read a practical paper entitled "Publicity for County Medical Societies," in which he urged the secretaries of county societies to report the activities of their societies for publication in the Journal. This paper is printed on page 1074 of this Journal.

Dr. Orrin S. Wightman, Editor-in-Chief of the Journal, told of some of the problems which the editors must decide immediately as they arise, especially the acceptance of news that is merely local, or ephemeral, or personal, or destructive. The Journal makes great effort to secure news that is constructive and that will inspire other county societies to activity. The publication managers wish to make a Journal which will have a real historical value twenty years in the future. The material regarding county societies is abundant, but the editors must depend on the officers to send it to the Journal.

The subject, "A County Society's Interest in Community Affairs," was presented by four speakers. Dr. W. M. Hale, Jr., of Utica, told of the efforts of the Oneida County Medical Society to secure a site for the County Tuberculosis Hospital. A committee on a site had made a majority and a minority report. Thus the physicians were divided in opinion, and lost much of their influence. Dr. Hale closed by saying: "The point is that the Medical Society did not take the lead at the beginning, and is not the leader now."

Dr. W. M. Rapp, of Catskill, described the efforts of the Green County Medical Society to devise plans for establishing a county hospital with a legacy of $40,000 which had been left for the purpose several years ago. But the County has only twenty-five doctors, who are divided geographically, and so the members of the County Medical Society had been unable to agree on a site or even upon the necessity for a hospital.

Dr. E. P. Orvis, Secretary of the Erie County Medical Society, described the successful efforts of the Society to secure publicity regarding the gradings of indivdiual milk dealers, and to improve the milk supply of Buffalo.

Dr. A. L. Madden, Secretary of the Albany County Medical Society, told of the studies made by a committee of the Society into a new source of water supply for the City, and of its cooperation with the City Board of Water Supply.

Dr. J. P. Garen, President of the Chatauqua County Medical Society, described some of the events which led the Society to pass the resolutions which were reported in this Journal of September 15, advocating the establishment of a county health department to be conducted and controlled entirely by the County instead of by an outside subsidized agency as at present.

Dr. I. A. Cole, Secretary of the Genesee County Medical Society, described a conference of a committee of the County Medical Society with representatives of the Grange over the question of medical service to the farmers of the County, especially during the winter months. (See this Journal, page 1098.)

The anti-diphtheria work of a county medical society was described by Dr. W. C. Treder, Secretary of the Schenectady County Society, and Dr. J. P. Henry, Secretary of the Monroe County Society. Both speakers described the details of the toxin-antitoxin campaigns in their respective counties.

Dr. Page E. Thornhill, of Watertown, described the courses in graduate education which had been conducted during the past three years by the joint efforts of the county societies of Jefferson and St. Lawrence, and gave seven conclusions as follows:

1. Three months' time is needed to prepare a course.

2. The union of two or more counties in rural parts of the State is an advantage in securing high-class teachers and a good attendance of doctors.

3. Publicity of the courses, both inside and outside the County, is of educational value in informing the people of the unselfish interest doctors are taking in their welfare. The names of those attending the last course in Jefferson County were printed in the newspapers.

4. At least a week should elapse between lectures in order to suit the convenience of the doctors.

5. The lectures should be according to a system. The course of the Jefferson and St. Lawrence counties was on obstetrics the first year, pediatrics the second, and gastro-intestinal conditions the third year.

6. The two counties reported the lectures, and sent mimeographed copies to their members.

7. Lantern slides and moving pictures are of value in the courses.

This was the second annual conference of the secretaries of the county medical societies of New York State, although the secretaries had frequently assembled in an informal way during the meetings of the State Society. The wide range of topics discussed, and the description of specific problems of individual societies make the conferences both helpful and inspiring.

The first formal conference of New York State was held on September 2, 1926, and was reported on page 798 of the September 15, 1926, issue of this Journal.

Abstracts of the description of two conferences of the County secretaries of Michigan were pointed out on page 880 of this Journal of August, 1925, and page 816 of the July 15, 1927, issue.

MEETING OF THE SCHOOL MEDICAL INSPECTORS

Steps are being taken to hold an American Conference of School Medical Inspectors in Cincinnati on October 17th, 1927. This action has been prompted by an increasing conviction among school physicians that an organized effort should be made to stimulate greater interest by the medical profession, and to inaugurate certain measures that would insure to the work greater efficiency and to provide more and better medical leadership. Many physicians who will be in Cincinnati for the American Public Health Association will no doubt attend the conference of school medical inspectors.

The morning session will be at the Sinton Hotel at 9:30 o'clock. At 6:00 P. M. an informal dinner will be served at the same place to be followed by short speeches by prominent American School Medical Inspectors. An interesting time is already assured. For further information address Dr. William A. Howe, State Education Building, Albany, N. Y.

RE-REGISTRATION FOR 1928

Dr. Harold Rypins, Secretary of the New York State Board of Medical Examiners announces that about the first of October the State Department of Education will mail to the 17,703 licensed physicians, registered with this Department for 1927, an application card for re-registration for the year beginning January 1, 1928.

These cards should be filled out and returned to the Department without delay. They do not require the certificate of a notary. Upon receipt of these applications the Department will send out by return mail the 1928 registration certificates.

Physicians, upon receipt of their application cards, will greatly assist in the accuracy of the 1928 list of registered physicians if they will fill them in and return them to the Department of Education as soon as they are received.

SECOND DISTRICT BRANCH

From the Bulletin of the Medical Society of the County of Kings, September, 1927

The annual meeting of the Second District Branch will be held in Brooklyn on the evening of Wednesday, November 9th.

Definite announcements of program and the like will be made within the next week or two. Present plans call for an extremely interesting District Branch meeting, which should be attended by every Long Island member of the State Society. There will be a discussion of the medical problems of public relationships and health programs. The speakers will present the work of the four county societies and the activities of one county society in which the Second District Branch is particularly interested. The evening will open with an informal dinner at 7 o'clock followed by the meeting at 8:30. Members will hear from the Committee on Arrangements and the Committee on Program in detail.

Every one is urged to mark November 9th as reserved for the District Branch meeting.

The State Society is composed of eight district branches. The Second District Branch consists of the four county medical societies on Long Island.

The President of the Second District Branch is Dr. Guy H. Turrell of Smithtown Branch, Suffolk County. Dr. Turrell has appointed a Committee on Arrangements consisting of Dr. Thurston S. Welton, President of the Medical Society of the County of Kings, Dr. Arthur D. Jaques, Secretary-Treasurer of the Medical Society of Nassau County, and Dr. Alec N. Thomson, Secretary Kings County's Public Health Committee.

Plans for the November meeting were formulated at a Committee meeting of the Branch officers who met with Dr. Turrell at Nassau County Court House, Mineola, on September 12th.

At the time of going to press Dr. Turrell had not appointed the Program Committee but it was the sense of the meeting that the program to be provided should include very brief descriptions of public relation and health activities of each of the District Branch constituent societies and a speaker who would explain the problem which has confronted one of the county societies not in the Second District Branch and describe the method of solution. In addition, it is planned to provide an illustrated talk by a prominent medical traveler.

An enjoyable, entertaining and profitable evening is to be provided. An evening devoted to the better understanding of the medical profession's individual, collective and community interest in health and welfare activities.

Do not forget November 9th.

STEUBEN COUNTY

The Medical Society of the County of Steuben held its Fall meeting at the Hornell Country Club on September 13th.

Dr. Harry R. Trick, President-elect of the Medical Society of the State of New York, made an address on the work of the State Medical Society, which was much appreciated.

The question of the Cattaraugus County Health Demonstration was discussed briefly by Dr. I. C. Munson, President of the County Society and Dr. Harry R. Trick. Much interest was taken in the controversy between the County Medical Society and the State Charities Aid Society.

Although no vote was taken, the general opinion seemed to be in favor of the stand taken by the Cattaraugus County Medical Society.

Dr. Homer J. Knickerbocker, of Geneva, presented a paper on the "Silent Gall Bladder" which he said was not silent. The paper was illustrated by X-ray films which were demonstrated by Dr. W. E. Achilles of Geneva.

Dr. D. C. McKenney of Buffalo presented a paper on Colitis and Dr. J. M. Swan of Rochester made a few remarks on the cancer problem.

I. W. Brewer,
Secretary.

THE CATTARAUGUS COUNTY MEDICAL SOCIETY

A regular meeting of the Cattaraugus County Medical Society was held at Olean on September 20, 1927.

In addition to guests from the neighboring county of Allegany, twenty-five physicians were present.

A brief business session was held.

Reports on receipts to the special fund of the Society were read.

The Committee on Public Health and Public Relations gave a brief résumé of its activities, and called for more suggestions in its task of developing a sound county health program. Letters from various parts of the State, and other states, commending the Society on its action in regard to the Milbank Demonstration, were read and appreciatively received. Preliminary figures on the poll conducted by the Committee to determine the attitude of the physicians throughout the State were presented. It was brought out that the sentiment of physicians everywhere was overwhelmingly in support of the Cattaraugus County Society in its stand. The physicians of Syracuse especially had recorded themselves as of the same opinion as the physicians in Cattaraugus County.

The following resolution was unanimously carried:

Whereas, since the time of the meeting of this Society on August 4, 1927, there has appeared in a newspaper in this county comments relative to the action of this Society regarding the Milbank Demonstration, which may be construed as inferring that the actions of the officers of this Society, and its Committee on Public Health and Public Relations, are not in accord with the Society itself,

Be it resolved, that the Cattaraugus County Medical Society hereby record its confidence in its officers, and its Committee on Public Health and Public Relations.

The speaker of the evening was Dr. Walter Calihan, who read an interesting paper on "Some Phases of Gallbladder Surgery." Following this paper, the discussion, opened by Dr. J. Ross Allen, was substantial and of worth.

GENESEE COUNTY MEDICAL SOCIETY CONFERENCE WITH THE GRANGE

The Public Relations Committee of the Genesee Medical Society held a conference with representatives of the Grange on Tuesday, September 6th, for the purpose of considering medical care for the rural residents of the county.

Mrs. Roy Shepard said that she had heard many instances where families were unable to get medical care in winter, especially at night. She suggested that physicians might arrange among themselves to select one of their number to be on call, and that the Grange might assist the doctors in the collection of their fees.

Dr. C. J. Whalen of Bergen said that the greatest hindrance to adequate rural care is the snow clogged highways and proposed the following resolution, which was carried:

> *Be it resolved,* that members of the Stafford Grange and the Genesee County Medical Society use all possible influence with town and county officials to keep roads in a passable condition for autos during the winter months.

Dr. C. D. Pierce of Batavia said that a second difficulty in medical practice was the disinclination on the part of farmers and their families to make proper use of hospitals. Dr. C. D. Graney of Le Roy urged that the Grange use its influence to secure the hospitalization of maternity cases and offered the following resolution:

> *Resolved,* that all prospective maternity patients consult and engage a doctor before the end of the sixth month and that all residents of the county affiliate themselves with the family physician.

This resolution was unanimously adopted, after considerable discussion.

Dr. C. L. Davis of Batavia said that hospitalization should be extended to cases of general sickness. He offered the following resolution which was carried:

> *Resolved,* that freer use of hospital facilities be taken not only by those requiring surgical attention, but also by those requiring medical and maternity care.

Dr. J. A. Cole of Le Roy spoke of the delay in calling a doctor until night, and offered the following resolution, which was carried:

> *Resolved,* that whenever possible contact with the doctor be made early in the day.

Mr. Fred Gardner, Chairman of the Grange, suggested that all families should have some simple remedies that could be used in emergency. He also suggested that the Home Bureau might educate farmer's wives in the use of the therometer and the method of counting the pulse and respiration.

While these resolutions and suggestions may seem commonplace to many physicians, yet the action of the Genesee County physicians is of value for it sets an example which other counties might follow. It is only too true that the people are inconsiderate of the doctor and ignorant of the good which he can do them, and that they call the doctor only when they become panic stricken and demand his attendance immediately. Grangers and Home Bureaus can do a great work by confidential cooperation with the county medical societies in educating the people regarding the assistance which a doctor can render them. The organizations have it in their own power to solve the problem of the medical aid to the rural districts.

MEDICAL WARES

THE SPHYGMO-MANOMETER

A physician understands the term blood pressure to mean the pressure to which the blood is subjected in the human arteries. It is a conception in mechanics whose interpretation involves at least four elements:

1. The force of the heart beat.
2. The resistance of the blood tubes, especially the smaller arteries and capillaries.
3. The elasticity of the arteries.
4. The volume of the blood.

An instrument for measuring blood-pressure is called a sphygmo-manometer (literally, a a pulse pressure measure). It indicates the blood pressure in millimeters of height of a column of mercury, but the interpretation of the findings calls for much skill and good judgment on the part of the physician.

There is a natural variation of pressure in a person within five or ten per cent due to exercise, excitement, eating and other physiological conditions. There are often variations of the pressure due to errors in the instrument. A modern blood pressure apparatus should be an instrument of precision that gives constant results. But it is often thrown into the doctor's bag with his obstetrical forceps and artery clamps, and is bounced about in his automobile over rough roads; and then the doctor finds that his patients who had high blood pressure have unaccountably improved, or others with headaches have suddenly become threatened with apoplexy. The reliability of the instrument is an important factor in taking blood pressure. A doctor desires a sphygmo-manometer that is sturdy, reliable and portable, and whose parts are easily replacable.

The modern blood pressure apparatus is simple in design and construction and easy to operate; and yet its evolution and development have been exceedingly slow. Over one hundred types of instruments were made during the half century preceding the year 1900, and the present standards of uniformity and reliability were reached only after patient research and experimentation.

Physicians of all ages have made a crude estimation of blood pressure when they have felt the pulse in the wrist, but the first accurate observations of blood pressure were made almost exactly one hundred years ago on laboratory animals by means of a manometer connected directly with an opened artery. The first practical instruments for clinical use were designed to act on the same principle as the estimation of the pulse by the finger. A small rubber bag slightly distended with air was pressed upon the artery in the wrist and the pressure required to obliterate the pulse was noted on a manometer. Other forms used a distensible rubber bag which was applied to a finger, like a glove finger; and still others used a narrow tube or band tied around the arm. But all of them had the grave defects of the crude estimation of the pulse with the finger, and the wide variation of their results prevented their clinical use.

It seems strange that a period of over two generations was required for the development of an accurate apparatus for the estimation of blood pressure by the general practitioner. The modern instrument using pneumatic compression applied to the arm was developed in the early years of the nineteen hundreds. Dr. Theodore C. Janeway published a text-book on the sphygmo-manometer in 1904 with the avowed purpose of making the "knowledge which is now scattered through text books of physiology, pathology, and practice, and a considerable Journal literature of twenty odd years, readily available to every physician." The book gives illustrated descriptions of the various types of instruments and their virtues. It also discusses their defects, most of which often apply to modern instruments, especially when they are abused or carelessly used.

When the reliability of the sphygmo-manometer and the uniformity of its results had been demonstrable, the use of the instrument became universal with some degree of suddenness between 1905 and 1910. No modern physician could practice medicine today without a sphygmo-manometer. A degree of the importance attached to the subject of blood pressure is reflected in the fact that physicians of the United States alone purchase more than one million dollars worth of instruments every year.

THE DAILY PRESS

TALKED TO DEATH

Many a doctor gets a reputation for wisdom by looking wise and keeping his tongue quiet; and on the other hand, many a one gets himself and his professional brethren into trouble by talking too much and often. Doctors may derive a moral from the following poem by James J. Montague, quoted from the department "More Truth Than Poetry" in the *New York Herald Tribune* of August eleventh:

To a Mosquito

"You might, had your pride in your singing
  Not been so abiding and vast,
Have continued the adderlike stinging
  With which you begin your repast.
You might, had you only been shyer,
  Have crept 'round my arms and my head,
And, fed to the bounds of desire,
  Gone, sated, to bed.

"But though you could gain nothing by it,
  It would seem that you had to rejoice
In a gift that you should have kept quiet,
  To wit, your shrill, odious voice.
You sang to me number on number
  As you rambled around through the flat;
Till at last I was roused from my slumber,
  And cried: 'What is that?'

"It was then that I reached for the swatter,
  As the light pierced the blanket of gloom,
And the chase became hotter and hotter
  As I followed you over the room.
You were swift and uncommonly wily,
  But my fury lent strength to my skill;
Till that voice, which you thought of so highly,
  Forever was still.

"No more will I hide 'neath the cover
  In the heat of a midsummer night,
While there in the darkness you hover
  And boast of your murderous bite.
Appalling your fate, but you owe it
  To your pride in your voice, little skeet;
Though you probably never shall know it,
  You died of conceit!"

THE ANCESTRY OF MAN

This Journal has utilized the frequent references to scientific discussions regarding man's ancestry to comment on the modern views of anthropologists. This department of Daily Press discussed these views last year on page 290 of the March 5th issue, on page 691 of the August 1st number, and on page 877 of the October 15th issue. The newspapers of September 1st carried front page accounts of an address by Sir Arthur Keith, President of the British Association for the Advancement of Science, and Professor of Anatomy at the Royal College of Surgeons. Dr. Keith reviewed the evidence of the theory of Charles Darwin that man's ancestors were related to those of the apes, and showed how modern discoveries had confirmed the general theory of Darwin, but had also shown that man's ancestors of a million years ago were even then men and not apes. Dr. Keith is quoted as saying:

"In our time man is represented not by one but by many and diverse races—black, brown, yellow and white; some of these are rapidly expanding, others are as rapidly disappearing.

"Our searches have shown that in remote times the world was peopled, sparsely it is true, with races showing an even greater diversity than those of to-day, and that already the same process of replacement was at work. To unravel man's pedigree we have to thread our way, not along the links of a chain, but through the meshes of a complicated network.

"We made another mistake. Seeing that in our search for man's ancestry we expected to reach an age when the beings we should have to deal with would be simian rather than human, we ought to have marked the conditions which prevail among living anthropoid apes. We ought to have been prepared to find, as we approached a distant point in the geological horizon, that the forms encountered would be as widely different as are the gorilla, chimpanzee and orang, and confined, as these great anthropoids now are, to limited parts of the earth's surface.

"That is what we are now realizing; as we go backward in time we discover that mankind becomes broken up, not into separate races, as in the world of to-day, but into numerous and separate species. When we go into a still more remote past they become so unlike that we have to regard them not as belonging to separate species, but different genera. It is among this welter of extinct fossil forms which strew the ancient world that we have to trace the zigzag line of man's descent. Do you wonder we sometimes falter and follow false clews?"

The New York Academy of Medicine considered the origin of man on April 7, 1927, when it held a symposium on the evolution of mind, when Dr. Frederick Tilney described the brains of prehistoric man as revealed in fossils; Dr. William A. White of Washington discussed evolution in the human adaptations to the complexity of modern life; and Dr. Henry Fairfield Osborn described the fundamental discoveries of the last decade in human evolution. These papers are printed in the August issue of the Bulletin of the New York Academy of Medicine, copies of which are available to physicians who are interested in anthropology. Of special interest are the two diagrams which are reproduced from the Bulletin in order to show graphically the line of descent of man, the evidence of his existence in geologic ages, and the approximate times when he lived.

The evidence from which man's ancestry is derived has often come from unexpected sources. The skull of the "Piltdown" man, for example, was unearthed by the shovel of a laborer in a sand pit, and was recovered in fragments by a foreman who possessed curiosity. In all probability many similar specimens have been thrown away unrecognized. When a specimen is found, it is a common custom to show it to a physician, for he is popularly considered to be an authority on bones of all kinds. But of equal importance with the fossil specimen is an observation of the stratum of earth in which it was found, for it is the stratum that fixes the age of the specimen. It is possible that the opportunity to preserve a valuable fossil relating to man's ancestry may present itself to any physician at any time.

PRIZE BABIES

When child welfare first became a recognized activity of departments of health, there arose the custom of holding baby shows and giving prizes to the most healthy baby. But their promotors soon found that health and pink cheeks and vigor were often accidents. Plumpness was often hereditary; rose checks were the expression of an excess of thymus secretion; and vigor did not represent resistance to infection. It often happened that a baby that was lusty and vigorous while it remained at home where it ate and slept normally, quickly succumbed to infection when it was exhibited, and was handled and kissed by infected admirers.

Baby shows have been abandoned by departments of health, except that prizes are sometimes offered to those who show the greatest gains in health. This permits the marasmus baby to take the prize, and is a real incentive to mothers to persist in the hygienic care of their sick babies.

A popular feature at country fairs is a modification of the healthy baby show wherein prizes are given for the baby with the best disposition. The judge and tester takes the babies in turn and puts them through acrobatic stunts and awards the prize to the one who endures the abuse the longest time without crying. Babies like to romp and sometimes the tester has to resort to covert pinches to eliminate the candidates.

Asbury Park put on its annual baby parade on August 31 in the presence of 150,000 onlookers. One hundred prizes were offered ostensibly to the babies, but in reality to the mothers who made up the babies to represent characters after the manner of movie actors. Hygeia played but a small part in the baby show, except that she was ignored and thrust into the background amid the excitement and fatigue of the parade.

The New York *Herald-Tribune* of August 31 contained unique editorial comments on the Asbury Park parade, and said:

"We have never known a baby champion in adult life, at least consciously. Nevertheless, it is not hard to believe that if he or she is aware from hearsay of the glory that crowned the infant head, he or she feels no temptation to boast of it. Quite the contrary. Every one has had friends who liked to relate that when they were born the doctor told their parents they weren't worth raising, or that as children they were so sickly their lives were despaired of. This is a natural form of vanity, since the comparison implied is very flattering.

"These folk say in effect: 'Look at me now and see what I have become despite such a poor beginning.' But who wants to say: 'I was the champion baby of the Jersey coast in the year umpty-um and now look at me?' We all shy from anticlimaxes.

"To-day, we learn, twenty-seven winners of baby parades throughout the country will compete for the title of champion baby of America at Asbury Park. At this distance and in advance we commiserate the winner and congratulate the mother."

BOOK REVIEWS

The Clinical Interpretation of Blood Chemistry. By Robert A. Kilduffe, A.B., A.M., M.D. 12mo of 186 pages. Philadelphia, Lea and Febiger, 1927. Cloth, $2.50.

This little volume is intended as a guide for the general practitioner. Although written in a very simple style and embodying but the elements of the subject, it is very complete.

As a handy little volume for the general practitioner whereby he can keep himself acquainted with the indications for treatment as pointed out by the results of chemical examinations of the blood, it should prove a valuable companion.

Max Lederer.

Bacteriological Atlas. A Series of Colored Plates Illustrating the Morphological Characters of Pathogenic Micro-Organisms. By Richard Muir. 12mo of 134 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.50.

This Bacteriological Atlas consists of a series of sixty excellent colored plates collected and described by Richard Muir. The plates are the handiwork of the author and although inclined to be somewhat schematic they form excellent representations of the bacteria illustrated.

This work should prove of exceptional value to the beginner in bacteriology.

Max Lederer.

The Harvey Lectures. Delivered Under the Auspices of The Harvey Society of New York. Series XXI, 1925-26. By Dr. F. R. Nager, and others. Octavo of 229 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $4.00.

The Harvey Society has for its object the diffusion of scientific knowledge of anatomy, physiology, pathology, bacteriology, pharmacology, and physioligical and pathological chemistry, through the medium of public lectures by men who are workers in the subjects presented.

The present is the twenty-first volume of the lectures, and contains seven monographs:

First, On Some Recent Otological Problems, by Dr. F. R. Nager, Lecturer on Oto-Rhino-Laryngology, University of Zurich, Switzerland.

Second, The Dynamics of Pepsin and Trypsin, by Dr. John H. Northrop, The Rockefeller Institute, New York.

Third, The Transformation of Mononuclear Blood Cells into Macrophages, Epithelioid Cells, and Giant Cells, by Dr. Warren H. Lewis, Department of Embryology, Carnegie Institution of Washington.

Fourth, The Parathyroid Glands, by Dr. J. B. Collip, Prof. of Biochemistry, University of Alberta, Edmonton, Canada.

Fifth, Empiricism and Rationalism, by Dr. Edwin B. Wilson, Prof. of Vital Statistics, Harvard University School of Public Health.

Sixth, Historical Outline of Medical Therapy, by Dr. Knud Faber, Prof. of Medicine, University of Copenhagen.

Seventh, Comparative Anatomy and Neuropathology, by Dr. B. Brouwer, Prof. of Neuropathology, University of Amsterdam. (Four of the above are by residents of countries other than the United States.)

The Society stands for excellence in all its publications, and it is considered a great honor to be chosen to lecture before the Harvey Society.

Wm. Henry Donnelly.

Saunders' Catalogue Describing 250 Medical Books.

The new Illustrated Càtalogue, just issued by W. B. Saunders Company, medical publishers of Philadelphia and London, describes and illustrates more than 250 titles. Of these, 42 are new books and new editions not described in the former issue of their Catalogue.

A serviceable feature of Saunders' Catalogue is the giving of the month and year of publication of each book listed. This, together with the description and in many cases the table of contents, author, his teaching connection and price, makes the Saunders' Catalogue one of unusual value from which the doctor may select and order his medical books.

There are a number of new books in the Catalogue which deserve the particular attention of progressive physicians and surgeons. For instance, there are Cecil's new Text-book of Medicine, Stokes' Clinical Syphilology, Kolmer's Chemotherapy, Morse's Pediatrics, Ford's Bacteriology, Young's Urology, Rehfuss' Diseases of the Stomach, Wechler's Clinical Neurology, Palfrey's Specialties in General Medicine, etc., etc. Anyone desiring a copy of this 80-page Catalogue need but indicate his wish to Saunders Company and one will be sent him immediately. It is worth having in the library as an index to current medical literature.

Gynecological Diagnosis and Pathology. By A. H. F. Barbour, M.D., and B. P. Watson, M.D. 3rd Edition, reprinted. Octavo of 223 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $4.00.

Pathology in its relation to physical signs forms the basis of this little volume. The various pathological changes which occur in the generative tract are briefly discussed, with short paragraphs on the anatomy and histology of the parts, and a brief story of the etiology, symptoms and physical diagnosis is good. Although the book professes to be nothing more than an abstract, it is rather surprising to find no mention of Sampson's epoch making work on the life history of chocolate cysts.

C. A. G.

Venereal Disease: Its Prevention, Symptoms, and Treatment. By Hugh Wansey Bayly, M.C. 3rd Edition. Octavo of 242 pages, illustrated. London, Faber and Gwyer, Ltd., 1927. Cloth, 10/6.

This is a very excellent little monograph and covers the subject matter concisely but thoroughly. While it obviously makes no pretence to compete with larger books, it fills a very definite place and is most heartily recommended to the general practitioner as a handbook of ready reference in his daily work.

N. P. R.

Practical Methods in the Diagnosis and Treatment of Venereal Diseases. For Medical Practitioners and Students. By David Lees, D.S.O., M.A., M.B. 12mo of 605 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.00.

The opening chapters of this book deal with syphilis from every angle and it covers this very large subject in a very concise and thorough manner.

These chapters alone are worth the price of the book.

The present reviewer is not so enthused about the chapters on gonorrhea and its complications.

There is also a chapter on gonorrhea in the female.

N. P. R.

THE MEDICINE MAN. Being the Memoirs of Fifty Years of Medical Progress. By E. C. DUDLEY, M.D. Octavo of 369 pages, illustrated. New York, J. H. Sears and Company, Inc., 1927. Cloth, $3.50.

"The Medicine Man" by Emilius Clark Dudley is an autobiography, and as Karl Edwin Harriman expresses it, the book "is less the autobiography of a man, than the personal record of an era in our American life and the concurrent progress of the science" of medicine.

In this book we get a kaleidoscopic picture of the various phases in the development of medical education and the concomitant progress in medicine. Dr. Dudley can well portray for us the changes from the old time septic surgical technique when surgeons performed operations in street clothes and cared more for the æsthetic cleanliness than for the aseptic purity of their operating rooms and instruments; to the present aseptic surgery with its beautiful operating rooms, sterilizers, gowns, gloves, and sterilized instruments, for he lived through these changes.

Throughout the book we are impressed with the strong, forceful character of the man. Dr. Dudley knew what he wanted and went after it and, what is more important, got it. It is no far stretch of the imagination to visualize him as an excellent surgeon, a good teacher, and an excellent administrator. He does not strike one as an exceedingly modest man and yet peculiarly he does not boast about his own achievements.

There is one flaw in the book that is outstanding and this really would detract from the book, if it were not so well written and so interesting, and that is the faulty proofreading and at times grammatical blunders.

WM. RACHLIN.

BIRTH INJURIES OF THE CENTRAL NERVOUS SYSTEM. Part 1—Cerebral Birth Injuries. By FRANK R. FORD. Part 2—Cord Birth Injuries. By Bronson Crothers and Marian C. Putnam. Octavo of 164 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1927. Cloth, $4.00. (Medicine Monographs, Volume XI.)

During the past few years, the results of the efforts of such men as Cameron, Capon, Henkle, Weyhe and many others interested in this vastly interesting and important subject of Birth Injuries, have been valuable contributions to this particular field of medical science. Part I, devoted to cerebral birth injuries, includes data which is the product of research work of over one hundred obstetricians. To determine whether, in the cause of hydrocephalus, birth injury has any importance, the writer has analyzed over one hundred autopsies of hydrocephalus. It is surprising to note that the relation of cerebral birth injury to mental defection, is amazingly small. Tredgold states that not more than 1.5 per cent of all idiots can be traced to birth injury, and these are invariably epileptic. In Part II, there are many cases of cord birth injury outlined. In view of the fact that material on this subject is extremely difficult to obtain, it being contained in special journals of obstetrics, pathology, orthopedics and neurology, the authors have offered a surprising amount of facts for the use of practising obstetrician and neurologist. We do not hesitate to highly recommend this book to the physician interested in this branch of medicine.

M. L. A.

AN ILLUSTRATED GUIDE TO THE SLIT-LAMP. By T. HARRISON BUTLER, M.A., D.M. Quarto of 144 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $9.00. (Oxford Medical Publications.)

English works on Ophthalmological subjects and particularly those put out by the Oxford Press, seem to have a happy style of diction which makes them very easy and attractive reading. This feature makes a strong contrast with translations, particularly noticeable in such technical descriptions as are presented in the slit-lamp studies.

T. Harrison Butler in "An Illustrated Guide to the Slit-Lamp" certainly has attained an attractive and lucid manner of presenting the involved aspects of this new procedure.

As he states, his work does not pretend to be a complete treatise—it is a sort of introductory work and should be considered as a supplement to the book by Koby and so in turn to the Atlas of Vogt.

In this the most recent work it is interesting to note certain additions to the "Methods of Illumination":

1. Diffuse Illumination.
2. Direct Focal Illumination.
3. Retro-illumination (transillumination).
4. Indirect Lateral Illumination.
5. Sclerotic Scatter.
6. Illumination in Mirror Light.
7. Oscillatory Illumination.

The discussion of corneal conditions is particularly interesting and takes up the numerous problems we meet in our every day work.

The arrangement of the section on the "Lens" particularly on the "Normal Lens," seems to lack definite logical arrangement but the author leaves a clear impression which makes up for any lack of conventional order perhaps.

The writer appends a number of pages relative to the use of the slit-lamp for unusual purposes. He speaks of its use in producing the hemianopic pupillary reaction (we must first agree that such a test would be of value), and there is a short section on the medico-legal aspects of slit-lamp microscopy. The application of slit-lamp methods to the ordinary institutions is of value as he takes it up.

One realizes the value of the truly wonderful plates in Vogt's Atlas when studying other works, and how unsatisfactory inferior illustrations are in a field where the whole problem depends on interpretation of detail. It is to be hoped that a *complete* work on this important subject will be presented before long with such illustrations as Vogt's Atlas shows, and with full elucidation of the various theories.

T. Harrison Butler's book is very well-worth owning

JOHN N. EVANS.

THE HEALTH OF THE CHILD OF SCHOOL AGE. By Various Authors. With a foreword by Sir THOMAS OLIVER, M.A., M.D. 12mo of 204 pages. New York and London, Oxford University Press, 1927. Cloth, $1.80. (Oxford Medical Publications.)

This is in book form a collection of lectures that have been delivered under the auspices of the Institute of Hygiene. The various phases of childhood are taken up by men of wide reputation in the British Isles, and they include:

The Dental Problem in the School Child; Diet in Schools; Infectious Diseases in Public Schools; Eye Troubles of School Life; Preventable Deformities in Childhood, etc.

The articles are short and to the point. They give in condensed form the essence of the present day knowledge and the treatment of the conditions of the child of school age.

WM. HENRY DONNELLY.

OUR NEIGHBORS

MEDICAL PUBLICITY

Arguments for Medical Publicity are well set forth by the June Issue of *California and Western Medicine* by Dr. H. A. Rosenkranz in his Chairman's address before the Urology section of the California Medical Association last April. The author says:

"It is only by publicity that we can give the laity the information that they are seeking and that they are entitled to. If we do not explain the fundamentals of disease and health and our relation thereto to the public, the public will be served as it has been in the past by false and sectarian propaganda, thoroughly and aggressively organized on a business and paying basis with the result that the art and science of regular medicine will recede into a weakly defensive position overshadowed and encroached upon by cultists.

"The arguments that I have most frequently heard against advertising are:

"1. 'I have all the patients that I can take care of, haven't you? Why try to get more?' It is this attitude of self-sufficient indifference that is partly to blame for our cult-ridden condition. Without building up a large practice, how can a physician acquire that amount of experience and resources necessary for the organization and maintenance of an institution where research may be carried out, medical science advanced, and the public most efficiently and economically served?

"Argument No. 2. 'Doctors can't guarantee their services hence shouldn't advertise.' Those of you who have tried to extract a guarantee from an automobile dealer or repair man will readily classify the form of mind that advances this gesture.

"Argument No. 3. 'The quacks indulge in publicity, so we shouldn't do it.' Would you interdict the sale of the Bible because some one else is circulating dime novels?

"Argument No. 4. 'It isn't nice to advertise —isn't done.' Perhaps the moving-picture industry sensed this very bad taste when it discontinued its 'advertising department' and substituted a 'publicity department.' The name was changed and everybody was happy. A constructive truth needs no apology. Life and health are important subjects. We physicians have assumed a responsibility in treating the sick who come to us, and we also owe to the public such information as will make most available and effective the methods of preserving health and life. Our shrinking modesty has resulted too often in the patient being forced to obtain his information on these subjects from irregulars whose blatant, subtle and destructive propaganda is always available.

"Ours is an old and glorious heritage, ever seeking the new in science and invention to apply to the healing of mankind. Are we not discriminating against the laity as well as against ourselves when we permit the public to give us the same classification and rating as the irregulars who have decreed that one *minute* of their education is equal to one *hour* of ours?

"Cannot we inaugurate a middle road of dignified publicity, thereby maintaining a higher degree of order within our own ranks and clearing up the confusion that exists in the minds of the laity?"

THE DOCTOR'S CIVIC OBLIGATIONS

The Medical Society of the State of New York is not alone in setting forth the civic duty of its members. This was the subject of the inaugural address of Dr. W. R. Calderwood, President of the Utah State Medical Association. The address is printed in the September issue of *California and Western Medicine,* from which the following extracts are taken.—EDITOR'S NOTE.

"Every organized body of men owes certain specific and definite duties to the community of which it forms a part and from which it derives its protection and is enabled to function as an organization.

"All of our illustrious predecessors in the field of medicine, those to whom we point with pride and honor as the great leaders in the alleviation of human suffering and the prolongation of human life, have had a keen sense of the obligation they owed society and the opportunity afforded them to serve their fellowmen.

"The achievements of organized medicine have not been surpassed by any other group of workers in the world's history. While we point with pride and satisfaction to past achievements, we realize that new and equally important problems require our most earnest

(*Continued on page* 1106 adv. xvi)

DRYCO

(The Safe Milk)

IDEALLY ADAPTED

FOR THE

MARASMIC **INFANT!**

PEDIATRISTS generally agree that the food given the *marasmic* infant must be exceptionally concentrated because the vigor and stomach capacity are both inadequate for the ingestion of large volumes of food. The food, too, must be of such a balance that it will supply the needed nutrients in proper proportion. The most important consideration is the selection of a food that is readily digestible since the digestive capacity is unquestionably subnormal.

This combination of a concentrated food of proper balance, high caloric value, which is readily digestible and completely assimilable is available to the Pediatrician in DRYCO, the safe milk in powder form. By virtue of the fact that the quantity of water may be diminished a concentrated diet of high caloric value may readily be obtained. The fineness and softness of the DRYCO curd assures its maximum assimilation and absorption with a minimum of digestive effort. In view of its palatability *marasmic* infants readily adapt themselves to DRYCO, showing at the same time, a marked improvement in appetite and weight.

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SAMPLES UPON REQUEST

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Supplied in 4 oz., 12 oz., and 3 pt. Bottles.

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Nonspi
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NONSPI destroys armpit odor and removes the cause—excessive perspiration.

This same perspiration, excreted elsewhere through the skin pores, gives no offense because of better evaporation.

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(*Continued from page* 1104)

consideration. 'We cannot rest on our oars o be content to follow in the footsteps of ou predecessors. New and changing condition require new viewpoints and new angles o approach.

"The call that comes to us for a physical examination of the apparently well is but on of the new and pressing problems which w are called on not only to meet, but to foster encourage and direct. This demand and opportunity which comes to us for a new an broader service has resulted largely from th activities of official and non-official healt agencies. It is our duty to join hands wit these organizations and by directing the bring about a closer cooperation and a mor unified effort to serve the public in a safe, san and scientific manner.

"There is no basic reason for differences between medical men and official or non-officia health organizations—each exists in respons to this same call for help coming from the sam source—the great mass of humanity. W should get together, compose our differences and with a united effort seek only the bes means of bringing accurate scientific data, t the solution of problems of human welfar and human happiness.

"Health organizations are established conditions. They exist in response to a public demand for help. They are factors in the complex structure of modern civilization, makin for better hygienic conditions and better healt and we must accept them. We can best serv the public, as well as promote our own interests by becoming a directing force in these organizations. Dr. DeSchweinitz, past presiden of the American Medical Association, in a recent address, said the public could be prevente from straying down the wrong path only if th medical profession had some dignified prope method of giving out the right information i the right way. He says that the time has com in modern medicine when there must be som kind of a properly regulated publicity. Th present methods are not satisfactory.

"The work being done in the field of th pediatrician where the united efforts of board of health, lay organizations and the medic profession are being directed to health conse vation, or keeping the well baby well, show very definitely the trend of civic medicine.

"Here we see the three forces—official healt organizations, lay organizations, and medic men working in harmony for the welfare of th baby.

"In the dental field like efforts have produce like results, until now the public call for hel has outdistanced the dental profession and de al clinics have had to be set up by boards of iealth or departments of education to care for he baby teeth. These clinics are established in esponse to a demand for help only when the lental profession fails to meet an insistent denand.

“In the field of general medicine tendencies ire in the same direction. Official and non-fficial health organizations are using their very effort to educate the general public in iealth conservation.

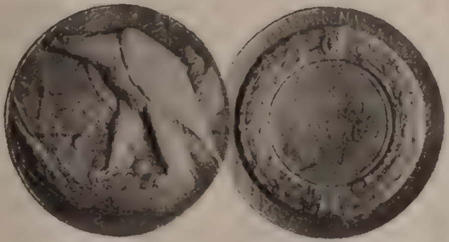
“As a result of these efforts, we find in the laily press and in current periodicals articles reating in a scientific and dignified manner, arious phases of the better health movement. We should avail ourselves of these various igencies at our disposal to facilitate public ducation on health problems. The daily press s not only willing but anxious to publish any worthwhile authentic health information of general interest.

“The periodic health examination is the oundation of every health program, and medial men should assist in every way possible to ducate the public to its importance as well as o the fact that the family physician is well ualified to make the examination. If we fail o make use of our opportunities in this line, ve are apt to see commercial agencies take ver this work, as they are already doing, and ve will be required to serve as their hirelings.

“The public have made possible our training. Are we repaying our obligation to them? Progress is made by trial and error, and we eem willing to let the “dear public” progress n this way. We forget that we are the reipients of all that has been learned in the chool of medical experience, in past ages of rial and error, with its incalculable human acrifices. We are remiss in our sense of duty f we fail to impart to the public this knowledge accumulated through the ages, and which ve have come into possession of through their fforts in our behalf.

“The plea that I make is for a better appreiation on the part of the medical man of his ivic obligations. Because of his special training he is qualified for leadership in all movenents having as their purpose better health, hysical or mental. All well-meant public iealth movements, official or non-official, hould receive his support and he should be a lirecting force in shaping their activities and n securing cooperative efforts. The educaion of the public in physical and mental health hould be made a business proposition with he organized medical profession.”

The Gold Medal
Cod Liver Oil



The Sesquicentennial Gold Medal awarded at Philadelphia as a recognition of the high quality of

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At the Sesquicentennial Exposition held in Philadelphia last year, the E. L. Patch Co. was awarded the gold medal for “excellence of product.”

This award is only one of the various forms of recognition which our product has received.

The recognition given to our product by the medical profession, after five years of clinical experience, constantly reminds us of our great responsibilities.

Here are a few reasons why Patch’s Flavored Cod Liver Oil is dependable.

It is made in our own plants along the North Atlantic Coast, from FRESH LIVERS.

Every lot is biologically assayed. The vitamin potency is guaranteed.

The dose is small—a half teaspoonful for children or a teaspoonful for adults three times a day.

It is pleasantly flavored. Your patient will appreciate this feature.

Let us send you a trial bottle of this “Gold Medal Cod Liver Oil.”

Taste it! You’ll be surprised.

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KEEPING ABREAST OF THE MEDICAL TIMES

A doctor is popularly supposed to acquire progressive skill with experience but the initiated realize that experience without reading and reflection tends to fossilization. This idea is contained in the September Nebraska State Journal in an article entitled "The Mitigation of Old Fogyism" by Dr. H. Gifford, who begins in a pessimistic vein by saying:

"The development of old fogyism in medicine may be said to begin with the first year of practice. Favorable results obtained by the use of measures which the young physician has been taught, start the congealing process which, as the years roll on, develops into the mental attitude of satisfaction with tried measures that practically closes the mind to the possibility of any improvement on them. At the same time the process of disillusionment begins and the ardour with which the young doctor greets every new remedy, gradually changes to a hard-boiled skepticism. The results of these converging tendencies is satisfaction with the old and distrust for the new.

"If old fogyism gets its start in early practice, it follows that its mitigation should also get an early start. To do this, the most important thing in planning the campaign for the future medical career is to achieve an attitude of mind which makes the study and practice of medicine, not a breadwinning routine but the chief and all important source of enjoyment in life. Much 'bunk' has been written about the desirability of an avocation for professional men. For the business man, an avocation in the form of some mental exercise is undoubtedly desirable; for a physician, the avocation too frequently has a tendency to become the chief interest and enjoyment; while medicine becomes a daily grind. For a man who wishes to use his mind, nothing can or should offer greater interest than the continued study of medicine. Allowing that as a citizen, one should do a certain amount of outside reading, it will add greatly to the enjoyment of his professional life if a man can train himself to do this outside work as a duty, to which a certain amount of time is given from the main enjoyment of professional practice and research.

"Granting, however, that the practitioner is wholly in sympathy with the idea of getting his pleasure from his practice, there are two main obstacles in the attempt of an older man to keep efficient and up to date. These are, on the one hand, the immense number of new terms which are constantly being brought into medical literature. There is an inevitable tendency to postpone the exact elucidation of such terms. But this tendency should be combatted promptly and strenuously because the influence of such ignorance becomes cumulative.

"If the practitioner will, beside his local and special medical journals, take one journal such as that of the American Medical Association and will read it carefully and will follow up the side lines which it opens, he will thereby become a far better posted man than nine-tenths of the men with whom he comes in contact.

"With regard to the time which a man ought to devote to his medical reading, this must necessarily be a personal equation. If the physician is thoroughly in sympathy with the idea of getting his chief pleasure from his profession, no difficulty will be encountered in putting in sufficient time. Otherwise, the temptations of outside distractions may seriously curtail his reading hours. The writer has found that by devoting at least a single hour every evening to medical work, one can go a long way toward keeping up with the times. But the allotted period must be filled with unfailing regularity, or, if emergencies interfere, the lost time must be made up. If such a rule is adopted it will be found that inclination will lead the reader to far over-run his time.

"One of the most discouraging features of practice, in advanced years, is the facility with which important cases, which would have produced indelible impressions in earlier years, slip out of the mind as if they had never been. To guard against this, it is important to keep an indexed list of peculiar or important cases and to review these several times at short intervals. I emphasize the importance of short intervals in all these repetition aids to memory, because if longer intervals are employed, a dent made by the first impact may be completely effaced before the second is brought to bear and it thus has no more effect than the first one.

"Aside from the continued necessity of earning a living, for most men, the main justification for the continuation in practice after the sixty-fifth year, consists in their having accumulated a store of experience, which, combined with a reasonable amount of clinical acumen enables them to give as good or better practical service than many younger men. All the more reason then for men who are passing the meridian to increase this valuable asset of later life by making an extra effort to fasten in their minds not only their own cases but those of which they read. Illustrated cases, can, of course, be more easily remembered and pictures should be given special study to this end."

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COLORS DENOTING PROFESSIONS

The *Journal of the Michigan State Medical Society* now appears in a green cover. Its July issue contains an explanation for the choice of green. It quotes the following table given an English manufacturer of gowns to show the colors appropriate to the professions.

Departmental Colors

Arts and Letters	White
Theology and Divinity	Scarlet
Laws	Purple
Philosophy	Blue
Science	Golden Yellow
Medicine	Green
Pharmacy	Olive
Dentistry	Lilac
Veterinary Science	Gray
Fine Arts	Brown
Music	Pink
Library Science	Lemon
Pedagogy	Light Blue
Forestry	Russet
Commerce and Accountancy	Drab
Engineering	Orange
Physical Education	Sage Green
Humanics	Crimson
Oratory	Silver Gray
Public Health	Salmon Pink
Agriculture	Maize
Economics	Copper

"These colors please the eye and delight the beholder. They add immensely to the beauty and impressiveness of the ceremonial processions. The arrangements of the colorings excite the interest of the spectators who try to figure out the full significance of the symbolic display and to determine by colors the colleges participating.

"The colors selected for the different degrees are historic, appropriate and easily remembered. The white for arts and letters comes from white fur of the Oxford and Cambridge B. A. hoods; while the red for divinity follows the traditional color of the church as signifying burning love and zeal for the faith as used by Cardinals for centuries. The purple for laws comes from the royal purple of the king's court; the blue of philosophy is the heavenly color that betokens truth and wisdom. The green of medicine comes from the green stripe of the army surgeon's uniform—originally, perhaps, the color of medical herbs allied to which is the olive of pharmacy. The golden yellow of science speaks of the wealth of scientific discovery and invention. The pink for music comes from the pink brocade of the Oxford doctor of music.

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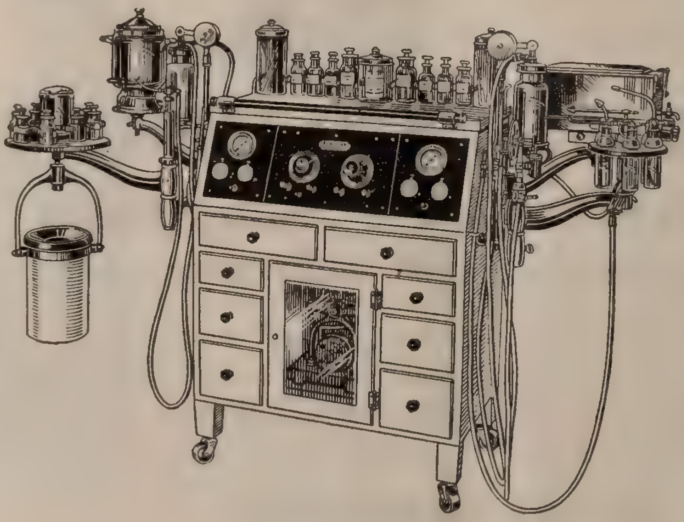

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MALARIA

Misconceptions regarding malaria are prevalent among both physicians and laymen. Dr. M. A. Fort discussed these misconceptions before the Medical Association of Georgia, on May 11, 1927, in a paper of unusual value and interest, from which the following abstracts are taken.—*Editor's Note.*

We will run over a few facts that everybody ought to know.

1. Malaria is caused by little living animal beings in the blood, and by nothing else.

2. This parasite is put in by a mosquito and by nothing else.

3. The only mosquito that can carry this parasite is the anophelene, and the only variety of anophelene to be feared in Georgia is the Anopheles Quadrimaculatus.

4. The Quads raise only in ponds, and not in running streams, tin cans, barrels, tubs, septic tanks, wells or other holes dug in the earth as the borrow pits made in road building. The clean-up campaigns for removing cans and trash are good for comfort, but they have no influence in preventing malaria.

5. No ponds, no Qauds, no malaria. The Quad gets her malaria from people who have malaria. A million Quads might hatch out of a pond and sting a million people, but they would not infect any of the people. But if some of the people had malaria already, the Quads would suck their stomachs full of malaria blood.

6. Malaria is not transmitted in the winter in Georgia, but the parasite lives in the blood of uncured persons all winter, and when frost comes and the mosquito gets chilled, the parasite will no longer develop and produce malaria, even if the mosquito is not killed. Malaria lives over winter in people, not in mosquitoes. The spring outcrops of malaria are recurrences of uncured cases of the year before.

7. While the parasites multiply in the blood, this takes place in the blood of the spleen, and possibly in the bone marrow and other deep tissues. As Dr. Darling used to quote, "The tragedy is enacted in the spleen. In the peripheral blood we see only the overflow."

8. Some Ways of Diagnosing Malaria:

First. Enlarged Spleen. Almost any case of malaria of any severity has an enlarged spleen.

Second. History. A person who has not had acute fever, having, at least in the beginning, a periodic tendency, with chills, probably has not malaria. Chronic malaria probably does not originate as such.

Third. Presence of Quads, or their larvae.

Fourth. The Microscope. When a stained blood smear is examined and the characteristic parasites are found, we have one of the most satisfactory and absolute diagnoses known to medicine. But unfortunately, we do not often find them. The tragedy is enacted in the spleen, while in the peripheral blood we find the overflow. And there is no overflow as long as the spleen is able to control the disease. Many cases having acute chills and fever and taking no quinine will show parasites, but in the vast majority of true malaria cases the microscope finds nothing. If a little quinine has been taken, the slide is nearly always negative, even with acute fever. Many doctors send a smear in, and if it is negative they say, "I have proved it is not malaria." They have proved nothing of the kind. Other doctors treat many of their cases as having a "touch of malaria," though these patients never have had an acute fever, enlarged spleen, or been exposed to Quads. These cases are not malaria."

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The Radon Laboratories of the Standard Chemical Company at Pittsburgh and New York have been combined and that all shipments are now made from the company's New York Laboratory at No. 1 East Forty-second Street, and the Chicago Laboratory, 25 East Washington Street. The combination of the Pittsburgh and New York Laboratories enables the company, with the aid of the airmail service, to effect prompt deliveries of this important medical agent to practically all parts of the United States.—Adv.

HORMONES

In the work of metabolism the hormones contributed by the various ductless glands—the endocrine chain—play the chief role. The hormone of the suprarenal gland is credited with two distinct functions; it stimulates the glycogenenolytic function of the liver, and it either stimulates the sympathetic system of nerves or duplicates the effect of such stimulation on the body.

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RAT-BITE FEVER*

Report of a Case with Demonstration of the Causative Organism and Its Use in Treatment of Paresis

By STANHOPE BAYNE-JONES, M.D.

From the Department of Bacteriology, School of Medicine and Dentistry,
University of Rochester, Rochester, N. Y.

THE bite of the ordinary gray rat is sometimes followed by a disease in man known as rat-bite fever, or by the Japanese term "sodoku." In this country, about 50 cases have been reported, some of which were reviewed by Crohn[1] in 1915. The disease is rare, but occurs throughout the world and has such a characteristic course that it is usually readily recognized. Aside from its general significance, it has, at present, two especially interesting phases: first, its etiology, and second, the use which is being made of the causative organism to produce a febrile disease in man for the treatment of paresis.

For some years, on account of the work of Schotmüller, of Tunicliff and of Blake[2], it was thought that rat-bite fever was caused by a streptothrix. Since 1916-17, however, when Futaki[3, 4] and his associates described the occurrence of a spirochete, which they called *Spirochaeta morsus muris,* in infected animals, reports of studies in Japan, Europe, Mexico and this country have confirmed their findings. Shattuck and Theiler[5] discovered the same organism in a case in Boston in 1924. After a review of the literature, they regarded their case as the first one in this country in which the presence of *Spirochaeta morsus muris* had been demonstrated. In 1925, this organism was found in a case in New Orleans by Lanford[6] and Lawson, and in Mexico by Monroe[7] and Mooser. The case reported in this paper is the fourth in North America to receive this etiological substantiation. The organisms occur in such scarcity in the blood and lesions of man that it is easy to understand how they might have been overlooked unless especially searched for. Although the significance of the occurrence of the streptothrices and bacteria encountered by Schotmüller, Blake and others is not yet clear, it is now well established that the disease is an infection with the type of spiral organism known as *Spirochaeta morsus muris,* or as Robertson[8] prefers to call it, *Spirillum minus.*

I am greatly indebted to Dr. Edward G. Nugent, of Rochester, for giving me the opportunity to obtain material for study from one of his patients who had rat-bite fever. Without the help and guidance of Dr. Nugent, the causative organism would not have been found.

REPORT OF CASE

The patient, J. L., (Strong Memorial Hospital, Unit No. 3924), a white man, 48 years old, was bitten on the right thumb by a rat on October 10, 1926. Nine days later, the thumb began to swell and became painful. Before his visit to Dr. Nugent, the swelling had been incised and an antiseptic applied to the wound. On October 26, 16 days after the rat bite, he had chills, fever and headache. The thumb was swollen, the axillary glands were tender, and his temperature was 104° F. Between this date and November 5, the patient passed through several periods of chills and fever, the temperature remaining elevated about 48 hours and reaching 104° F. On November 5, a large purplish macular eruption began on the right arm, and during the next two weeks this eruption appeared in spots on the arms, legs, feet and abdomen. Between the attacks of chills and fever, the patient felt quite well. Clinically, the disease was typical rat-bite fever, but treatment was withheld, with the patient's consent, until etiological studies could be made. Several blood cultures, during the period between October 26 and November 16, were sterile, except one plate which was obviously contaminated by a hard, chalky white growth of two colonies of a streptothrix commonly found in dust. This organism did not resemble any other streptothrix described in connection with this disease and was not pathogenic. Darkfield examinations of pus from the wound on the thumb, of the patient's blood and of fluid from a lymph node puncture were negative, and guinea pigs inoculated with the blood did not develop the disease. Finally, on November 17, one of the macular skin lesions on the abdomen was excised, ground up and injected into a guinea pig. The causative organism was obtained from this inoculation.

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* Read before the New York State Association of Public Health Laboratories, Niagara Falls, May 10, 1927.

The patient's Wassermann reaction was positive, giving complete fixation with both cholesterinized and alcoholic antigens, and the Kahn test with his serum was also positive. He gave no definite history or signs of syphilis. But from the persistently positive Wassermann reaction with his serum, in contrast with the usually negative results of this test in rat-bite fever, it is now thought that he may have an obscure luetic infection.

On November 20, he was given an injection of 0.6 gm. of arsphenamine, after which he had one brief febrile period followed by the disappearance of the lesions and symptoms.

In December, it was discovered that the patient had glycosuria after eating a large meal. This, and other conditions which have developed in his case, are thought to be distinct from his rat-bite fever.

WASSERMANN REACTION

The Wassermann reaction has been negative in the few reported cases in which the results of this test have been recorded. Blood serum from guinea pigs in the early and late stages of the experimental disease has always given a negative Wassermann reaction. It seems justifiable to conclude that rat-bite fever does not cause a positive Wassermann reaction.

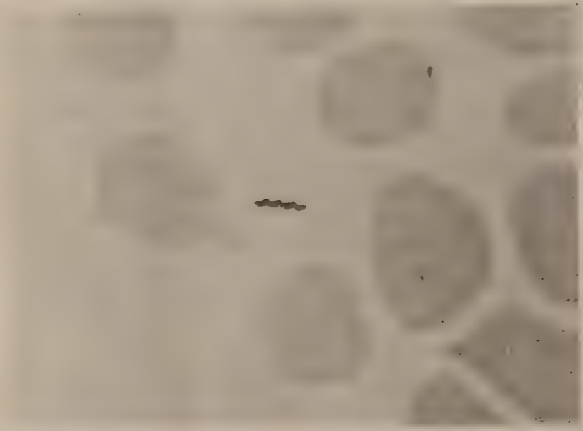

Fig. 1.—Photomicrograph of Spirochaeta morsus muris in blood of infected guinea pig, showing the long form of the organism. Wright's stain.

INFECTIVITY OF RATS

A search for *Spirochaeta morsus muris* in the rats in Rochester has been begun. It has not been found in any of the 25 rats which have been examined. Joekes[9], however, found it in a quarter of the wild rats which he examined in London. In Mexico Mooser[10] found the organism in the conjunctival secretions of rats, which always had lesions of the eyes when infected. It seems entirely probable that the organisms pass from the eyes into the mouth and hence are transferred by the teeth into the wound when the animal bites. It has been noted that when a rat bites several times, only one of the wounds goes through the changes characteristic of the initial lesion of rat-bite fever. The organisms, therefore, do not seem to be numerous in the animal's mouth, and are probably wiped off the teeth in the first wound. Infected guinea pigs also develop this type of conjunctivitis, with a secretion which is infectious.

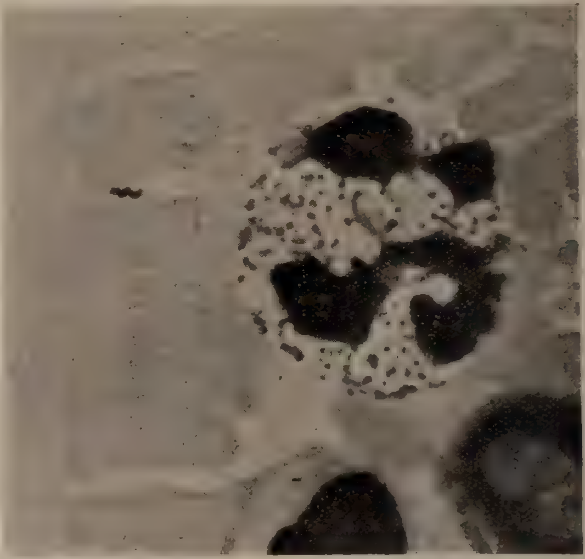

Fig. 2.—Photomicrograph of organism in a different field of the same preparation. This shows the short form of the spirochete. Wright's stain.

THE MICROORGANISM

The spirochete which causes rat-bite fever has been seen only occasionally in the blood and lymph node fluid from infected persons. The best method of obtaining it is the inoculation of susceptible animals, in whose blood one or two of the spirochetes can often be seen by darkfield illumination in each field examined. Of the laboratory animals, guinea pigs and mice are most susceptible. Rabbits and dogs are resistant. In the guinea pig, the infection runs a characteristic course, with fever, dry necrotic ulcers in the skin and scrotum or at the point of inoculation, conjunctivitis, and loss of hair around the eyes and muzzle. Guinea pigs die of the infection in about 3 months. Spirochetes occur in demonstrable number in the blood of these animals 5 to 15 days after inoculation, and are persistently present until the animal dies. White mice exhibit no symptoms or lesions, but have the spirochetes constantly in their blood stream. Mice thus harboring the organism have been kept from 6 to 11 months, providing a convenient source of infectious material.

The organism has a short spiral body, 2 to 7 μ in length and is apparently considerably wider than other pathogenic spirochetes. Some forms are short having only two coils, others are longer having 4 to 6 coils, with the crests about 1 μ apart (Figs. 1 and 2). One or more flagella, 2 to 4 μ long, occur at each pole (Figure 3). Adachi[11] and others have described branched flagella, but I have never seen that formation. Occasionally, flagella appear at the sides of the middle of the longer spirals, probably at points of division. The motility of the organism is an extraordinarily rapid rotating and darting movement in straight paths. During this movement and also at rest, the body seems to be rigid like that of a bacterium. Wright's stain, other stains used for hematology and silver impregnation methods are most satisfactory for coloring the organism. The position of this microorganism is not yet definitely determined. Some authors, regarding it as related to the bacteria, have named it *Spirillum minus*. As satisfactory cultures have not been obtained, these questions cannot be settled at this time. But from the nature of the infection it causes, the sensitivity of the organism to salvarsan, and other features, it seems to be more closely allied to the spirochetes, as was indicated by the name *Spirochaeta morsus muris* given to it by its discoverers.

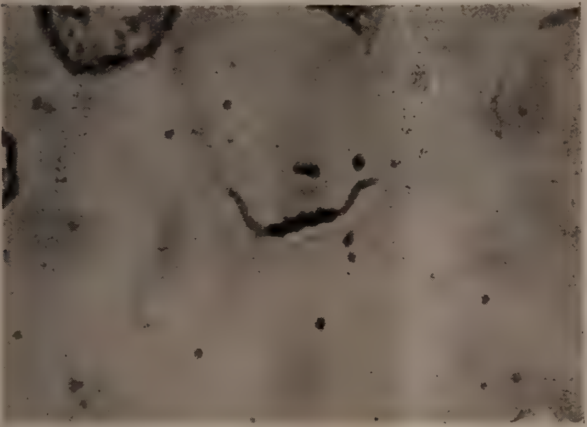

Fig. 3.—Photomicrograph of spiroceté showing single flagellum at each end. Modified Fontana stain.

Treatment

In 1912, before the discovery of the organism, Hata[12] introduced salvarsan therapy for the cure of this disease. Since then, that drug and similar arsenicals have been used for their specific and rapid effect. Cure follows promptly upon the injection of any of the arsenicals of this type, in the usual doses. One injection is often sufficient to put an end to the fever and cause a rapid disappearance of the lesions.

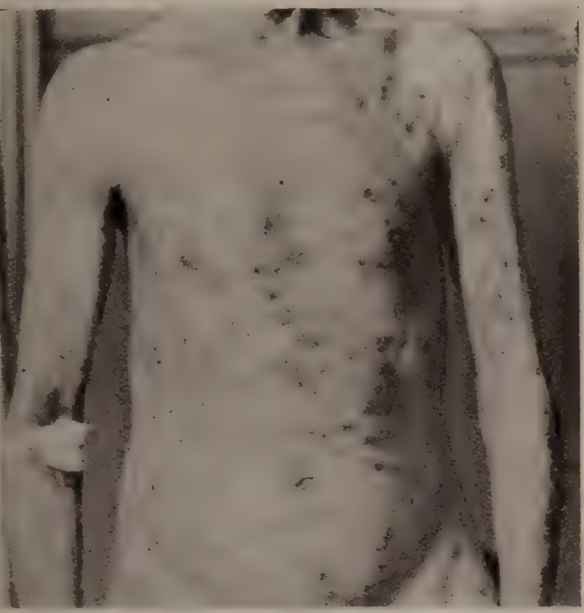

Fig. 4.—Photograph showing macular skin eruption on trunk and arms of Patient C, a paretic, who was given rat-bite fever for the therapeutic purposes.

Use in Treatment of Paresis

Experimetally produced "sodoku" has been employed by Soloman[13] and his associates to produce paroxysms of fever for the treatment of paresis. As contrasted with the malarial parasite, used for this purpose, the organism of rat-bite fever offers several advantages. It produces a relapsing type of febrile disease, with temperature elevations as high as 104° to 105° F. when injected intracutaneously into the skin of the thigh in man. Intravenous injections also cause infection. The disease in man thus produced is not dangerous to the life of the patient, and can be stopped promptly by arsphenamine. The disadvantages are the skin lesions. At the site of inoculation, a large ulcer covered with a dry black scab and surrounded by a zone of redness and swelling forms after the first week and persists during the infection (Figure 5). Eight to 10 days after the inoculation a macular, purple, slightly scaly eruption appears on the surfaces of the body, arms, legs, neck, parts of the face and in the scalp (Figure 4). These lesions are conspicuous, but are not painful and disappear without leaving scars after the injection of arsphenamine. The lesion at the site of inoculation can be avoided by careful intravenous injection, protecting the tract of the needle puncture from direct infection.

The strain obtained from J. L. was used to infect a patient, C (Strong Memorial Hospital, Unit No. 6584, Medical Service of Dr. Wm. S. McCann), who was suffering from paresis. Typical lesions, eruption and fever were produced, and the experimental disease was promptly stopped by an injection of arsphenamine. The skin eruption disappeared almost entirely within 10 days after the injection of arsphenamine, but the local lesion on the thigh receded much more slowly.

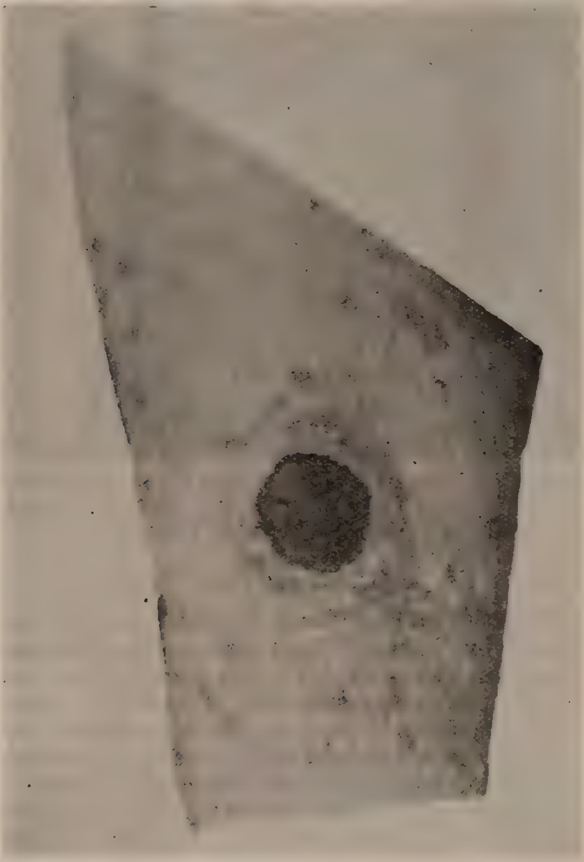

Fig. 5.—Photograph of the "initial lesion" in skin of thigh of patient C, at site of intracutaneous injection of 1 cc. of blood from injected guinea pig. Area of necrosis covered by black scab and surrounded by induration three weeks after injection.

Summary and Conclusions

1. *Spirochaeta morsus muris* was obtained from the skin lesions of a man in Rochester, New York, suffering from rat-bite fever. This is the fourth case in North America from which the organism has been obtained.

2. The spirochete has not been cultivated, but can be maintained in the laboratory in guinea pigs and mice.

3. When injected into man, the spirochete produces typical rat-bite fever, with florid skin lesions.

4. It has been used to produce a febrile disease for the treatment of paresis. No opinion on its effect upon paresis can be formed at this time. The experimental disease can be easily controlled by arsphenamine, but the lesion at the site of inoculation and the skin eruption are factors which must be taken into account in considering the application of this form of therapy.

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STUDIES IN MYCOTIC DERMATITIS*

Superficial Yeast Infections of the Glabrous Skin

By CLEVELAND WHITE, M.D., BUFFALO, N. Y.

Introduction

SUPERFICIAL cutaneous eruptions caused by yeast fungi have been noted in numerous instances in localized interdigital and other such "close contact" areas of the skin. Their etiological importance in such intertriginous dermatites has been effectively presented by several observers, recently by Dulbrueilh and Joulia,[1] who reported nine cases of involvement of contact regions of the body e.g. inguinocrural, perianal, and inframammary. Human inoculation was unsuccessful. Interdigital infections, especially of the fingers are well known, e.g. the so-called "erosio interdigitalis

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 10, 1927.

blastomycetica," in which condition some observers have found yeast cells only, while others have found mycelium as well as cells. Dermatoses due to yeast-like fungi, the thrush group, are accepted clinical entities and have been exhaustively summarized by Shelmire[2] in a recent communication; they are usually localized to the contact areas of the skin but occasionally disseminated over large areas as in water bed treatment, after wet dressings and in nursing infants. Sabouraud[3] has consistently opposed the conception that blastomycetes or yeast may cause intertrigos but the successful results in experimental disease reproduction by yeast auto-inoculations has effectively contradicted this opinion (recent excellent summary of inoculations by Weidman[4]).

Classification

The nosological position of yeast is still debated. The distinctive morphological feature of yeast is budding in tissue and culture. Castellani's[5] classification is the best known and most acceptable to dermatologists; in it we have first two families (saccharomyces and cryptococcus) which rarely present mycelium even in cultures. Ascospores are formed in the cultures of saccharomycetic type but no ascospores in the cryptococcus; genuine mycelium is never found in either family. These two families could collectively be called yeast or blastomycetes. Next comes a second group of these fungi, which is characterized by the presence of hyphae in addition to the usual round cell yeast structures; they embrace the other two members of the above classification, viz: endomyces and monilia, the most common causative organisms of thrush. This group of yeast like fungi might be collectively termed the thrush group in contradistinction to the non-mycelia forming division just designated as yeast. In this presentation the term yeast or blastomycetes is restricted to the status of the first group just described, i.e., no real mycelium at any time. This terminology should not confuse one with the particular yeast which Gilchrist[6] has described, causing the clinical entity known as blastomycosis; this fungus is a *deep* invader and was termed *Cryptococcus gilchrist* by Vuillemin.

Pathogenicity

Yeast organisms are known to inhabit the normal skin. Tommasoli[7] (in 1889) reported six different types of yeast species from normal skins and suggested that they might assume pathogenic properties. Greenbaum and Klauder[8] found 35 instances in 150 normal skins examined, finding four species which were similar to their pathogenic strains isolated from intertrigos. Other workers have found yeast in sundry cutaneous diseases, e.g. pityriasis capitis and psoriasis, where they were considered incidental. In the face of such findings there must be close adherence to Koch's postulates. This has been done in several isolated instances with fungi from interdigital lesions inoculated in areas of like distribution. Jessner and Kleiner[9] performed such experiments on a larger scale than any other workers. Using various blastomycetes (Soorpilze) obtained from normal skin, 18 patients were inoculated between the fingers in various ways—on sound skin, macerated skin, lacerated skin, and macerated and lacerated skin. Results were negative on sound skin, but under the remaining conditions 40% were positive (erosio interdigitalis).

That yeast organisms are pathogenic in localized intertriginous areas, both clinical and experimentally produced instances testify; but in more extensive superficial generalized eruptions, they have been accorded but little significance if the literature is taken as a criterion. It is the purpose of this communication to particularly emphasize this manifestation. Thus, Castellani[10] described a condition in the tropics known as cryptococcosis epidemics, caused by the Cryptococcus epidermidis. It is characterized by small round patches occurring on the arms and rarely on the trunk, usually in adults. The blastomycetic elements have not been cultured. Guy and Jacob[11] found cryptococcus in cultures in a long-standing unusual eruption of the skin and mucous membranes of a boy of six. Crust-covered lesions on an erythematous base were present around the knees and elbows and the mucocutaneous junctions of the anus and mouth were marked swelling of the lips; there was also a marginal blepharitis. Dr. Charles J. White[12] has recently cited two cases which he believes to be a new type of yeast infection, termed under the name of "Dermatitis Saccharomycetica," and having a rather wide distribution. The areas involved were the lateral roots of the neck, axillae, the flexure of the elbows and the groins with the primary focus in the bend of the elbow. No mention is made of cultures. Other isolated case reports are available in the bibliography submitted by Beeson and Church.[13]

Author's Experience

In a series of sixteen patients presenting a similar clinical picture, which ordinarily would come under the category of "eczema," involving large areas of the glabrous skin with only occasional involvement of intertriginous areas, yeast were grown on culture, all having the morphology of cryptococcus. The belief that they might be of decided etiological importance, probably only in a susceptible cutaneous background, was materially strengthened by positive results in all five attempted human auto-inoculations. Recovery of the yeast in pure culture from these artificial lesions fulfilled Koch's postulates. In the patients studied, the age varied from three months to twenty-two years with eruptions of varying extent and duration. All presented at some stage thick adherent crusts on an erythematous base usually in large discrete patches. The common locations were on the face, antecubital and popliteal spaces, sides of the neck, and dorsa of the hands and wrists; sometimes involving all these regions, occasionally only one. Other less common localizations were the retroauricular, posterior cervical regions and the margins of the eyelids. Few presented interdigital foci, no mucous membrane involvement was detected in any. Several brief individual case reports will best illustrate the clinical picture, the laboratory studies pursued and the method of auto-inoculation.

M. M., a boy of thirteen presented (July 30, 1926) crusted and eroded erythematous patches on the flexor surfaces of all extremities and back of the neck with many discrete thick adherent crusting areas on the face and legs, accompanied by a variable degree of itching. Attacks had been intermittent for five years; the present was considered the most extensive. Clinically it resembled a combination of exudative type of seborrheic dermatitis and flexural eczema. The boy's general health had been excellent except for a mild attack of "eczema" of the face when a baby; he was a robust, growing school boy.

Repeated urinalyses showed only an occasional leucocyte; blood Wasserman and Kahn were negative. In two stool examinations, a small amount of fatty acid was found. They were negative for starch and ova, and positive for meat. Further detailed cutaneous examination revealed interdigital erosions of the toes quite characteristic of superficial mycotic foci. Scrapings were taken from various areas, including the toes; 10% potassium hydrate preparations were made and plantings made on Sabouraud's glucose media. In 24 hours double contoured organisms were found in the alkali preparations, especially between the toes, with an occasional budding form. No mycelia could be demonstrated, even in many subsequent scrapings. Cultures were made, and at room temperature between the sixth and tenth days two types of growths appeared on most of the planted tubes; (1) moist masses and (2) filamentous colonies with a blackish discoloration just beneath the growth. The moist masses were found to have separate and budding round and oval yeast cells with no ascospores and no mycelia. It was considered a cryptococcus and still maintains this morphology (nine months time). The other growth was found by Dr. F. D. Weidman to have affinities with alternaria.

Auto-inoculation of (1) yeast, (2) yeast and alternaria, (3) alternaria alone, and (4) a control produced crusting lesions only where the yeast was inoculated, with no apparent exaggeration when combined with alternaria. The inoculations were performed on the patient's back, using a sharp scalpel and making linear incisions just deep enough to make a most superficial break in the epidermis. A small amount of serum would exude and occasionally a minute droplet of blood. No previous sterilizing was deemed advisable as the cutaneous background might have been changed thereby. Material was transferred on a sterile platinum loop from the cultures to the various minutely incised areas except the control. Loose sterile gauze was applied over the patches to prevent gross contamination from the overlying clothing. Lesions resembling the original complaint began to appear by the third day following inoculation and decidedly pronounced on the seventh day when cultures were taken to fulfill Koch's postulates. As the cultures grew faster on this planting,—sufficient on the fourth day to detect the same morphological characteristics, treatment was immediately applied to the artificial lesions. The positive lesions followed the same clinical course very closely. On the second day following inoculations, there was a distinct erythematous area surrounding the transplant. Small irregular crusts usually appeared about the third day, apparently due to dried serous exudate for vesiculation was very transient if it did occur. Larger more adherent crusts became evident between the fifth and seventh days, becoming slightly more pronounced up to the twelfth day. Treatment was always instituted at this stage. Usually there was mild itching in the positive inoculations. As the alternaria proved to be a saphrophyte on repeated inoculations, no further steps were taken to determine its species. Histological examination showed only those features compatible with any subacute dermatitis.

M. K., a boy of nine had had "eczema" all his life, with especial localization to the face with intermittent exacerbations. When first observed at the Buffalo City Hospital (Dec. 20, 1926); thick adherent crusting lesions upon an erythematous base were present on the face and back of the ears with large confluent patches of the same type on anterior surfaces of both legs. No interdigital lesions were present. General physical examinations were negative.

Blood examination showed 85% hemoglobin; 4,200,000 red cells; 15,500 white blood cells; with a differential count of 72% polymorhonuclear leucocytes, 24% small lymphocetes, 2% large lymphocetes, 1% momonuclears and 1% eosinophils. The blood Wasserman and Kahn tests were negative. Blood uric acid was 3.08; creatinine, 1.15; urea nitrogen, 11.1 glucose, 106; calcium, 8.88 mg. per 100 c.c. of serum. Two basal metabolic tests a month apart were plus 2.06 and 2.7. Urinalysis showed no abnormal changes. Histopathological examination revealed mild inflammatory changes comparable with any subacute dermatitis. Scrapings were taken for direct and cultural study. Double contoured round cells were found, with an occasional budding form. In the cultures, cryptococcus, *Aspergillus fumigatus* and *Staphylococcus albus* grew. Auto-inoculation with each of these, and both alone and in various combinations gave positive lesions only where the yeast was planted, either separately or in combination; the cryptococcus being recovered in pure culture from the produced lesions.

The three additional cases which complete the list of five will not be reviewed here in detail. In all of them positive yeast inoculation tests were obtained; the associated strains of *Penicillium brevicaule, Mucor mucedo* and *Trichothecium roseum* were apparently saprophytic, judging from their failure to produce cutaneous manifestations on their respective hosts, even though the attempt was made at least twice in each case.

This series of suspected fungus cases certainly embraces more than five valid members. Eleven "positive culture" patients were not auto-inoculated because circumstances did not permit; in fact, all the cases except one were seen in office practice (in association with Dr. E. D. Osborne). After the results obtained in the five cases first mentioned, it is probable that success would have been met in some of the eleven others.

None of the sixteen cultures has shown mycelia at any time. This is in accord with Sasakawa[14] who never found any gradual transformation from budding cells into genuine mycelia of the hyphomycetic sense even in yeasts which had been studied for years. Draper[15] has recently discovered that the round cell forms of *Oidium albicans* (one of the thrush fungi) grow as mycelia in a carrot infusion broth medium or if a small amount of inorganic phosphate is added to certain culture media, e.g. 1% peptone solution. Planting cryptococci from cultures isolated in this study into media according to Draper's methods has not produced mycelium. This would classify the cryptococci isolated in these patients as probably an autonomous group with fixed character rather than a fortuitous stage in the development of filamentous fungi which are more advanced in plant scale and might exist at times as round cell forms and at other times as mycelium, depending on the environment, etc. Biological tests of these cryptococcus cultures are being performed to determine properties useful in a more refined classification.

The history of the case last described was that of so-called infantile eczema, and the lesions presented were characteristic of the exudative type. This would suggest a mycotic origin for at least some cases of infantile eczema. The incidence of contact reservoirs of both yeast and hyphomycetic ringworm is high in the environment of sufferers of infantile eczema, as observed by Osborne[16] and proven by the author in numerous instances by laboratory procedures. As an interesting illustration in this respect the following case may be cited.

J. G., a boy of twenty-six months had had an intermittent eruption since the age of three months of varying extent. When first observed (Dec. 1, 1926) large crusting areas were symmetrically present on the face, scalp, back of the hands, wrist, and dorsums of the feet. The mother stated that the eruption had been general at times. His general health at the time of examination was excellent; he had had rickets and nephritis, the latter accompanied by ascites, according to the history. Physical examination was essentially negative. Various types of treatment had been used apparently with little relief. A baby brother three months old had several oozing, crusting patches on the right ear, present one month. On questioning the mother, she stated that she had some skin trouble on her legs six years previously and now had some "ground itch" between her toes. Examination of the feet showed an extensive erosion with overhanging scaling borders in the interdigital space of the right foot, a lesion one would ascribe clinically to *Epidermophyton* or an allied fungus. Repeated potassium hydrate examinations from the area failed to demonstrate any mycelium but yeast organisms were constantly present. Cultures from the faces of both babies, scalp and scattered crusting patches of the older child and the mother's toe lesions developed a cryptococcus in many plantings from each area. No opportunity was afforded for auto-inoculation. Clinical analogy and positive yeast cultures would certainly point to a mycotic basis for some cases of infantile eczema, a contact reservoir focus of infection being in some member of the family—the mother in this particular instance.

SUMMARY

Yeast fungi of cryptococcus morphology were cultured from sixteen patients having a generally similar eruption, conforming to the clinical syndrome usually termed eczema,

characterized in its course in one stage by thick adherent crusts on an erythematous base. Clinically the distribution of the eruption resembled that of seborrheic dermatitis in adults and infantile eczema in the younger patients. Five attempted auto-inoculation tests produced positive lesions in the respective hosts. Two cases are reported in full to bring out the clinical picture and the experimental studies pursued.

A number of other fungi grown on culture from various patients proved to be saphrophtes, judging from negative inoculation attempts, viz.: *Penicillium brevicaule, Aspergillus fumigatus, Trichothecium roseum,* and a form of Alternaria. Bacteria of the order of *Staphylococcus albus* did not produce any manifest lesions.

Results of this study suggest that certain blastomycetes or yeast, cryptococcic in form, may be pathogenic producing widespread superficial skin infections usually designated as eczema; it is believed that some types of infantile eczema also fall into this group.

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HEADACHE*

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THE subject of headache is such a wide one that in a paper of this length one might easily leave out more considerations than one puts in, merely on account of the limitations of ones individual point of view. For my personal motive, I have not recently consulted any of the many excellent articles on the subject, but will endeavor here to make a contribution from my own experience and reflection.

It has seemed best, therefore, to inquire into what headache is, and what the possible mechanism of its production before considering specific aetiological causes, and this I attempt in a purely speculative frame of mind, inviting criticism and even contradiction.

Can the cranial contents be considered for this purpose, as a viscus, and can headache be compared to visceral pain? If so, the latter might be briefly described according to the teaching of that authority on sensation—Henry Head.

It will be remembered that he calls attention to the similarity of protopathic pain, sympathetic pain, deep pain and visceral pain, and it is characteristic of all of these that they are badly localized and tend to be diffuse; that they are ill-defined, and that they are not necessarily proportionate to the strength of the impulse that produces them, where that can be approximately measured.

It has been argued by some that viscera are completely insensitive, and many of us have probably had to cut an exposed loop of bowel, and some of us have had our fingers in brain substance while actually talking to the patient, and being assured by him that he felt no pain. Yet few of us will deny that they have experienced colic, and some part of the cranial contents must initiate pain if headaches are to occur.

The bowel gives pain if tightly contracted. but not if stretched. The mucosa is insensitive unless diseased, and the peritoneal covering follows the same rule. The kidney becomes painful in a chronic parenchymatous nephritis with oedema, and this pain is relieved by splitting the capsule. Is this covering painful to stretching and peritoneum not?

The same problem will arise in connection with headache—as to what part of the organ initiates the pain. We shall have to consider mechanical factors, chemical factors as produced by metabolism of the body as a whole, local disease, as from the nasal accessory sinuses, disease within the cranium, function headaches and headache due to afferent impulses coming in from remote parts, such as the eyes, and even as far as from the rectum. This is the plan of my paper which I shall try to develop.

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In the class of mechanical headaches we are probably dealing, to a great extent, with disturbances of secretion, absorption, and freedom of flow of cerebrospinal fluid, and this in its relation to blood flow in the brain and meninges.

We can produce a headache very readily by withdrawing some cerebrospinal fluid through a lumbar puncture, afterwards allowing the patient to remain up and about This headache is intensified if he performs exertion It is relieved if he lies down It is again intensified if he stoops The headache on standing up may be due to either or both of two things: Possibly increased tension occurs in the Aqueduct of Sylvius and in the foramina of Magendie and Lushka, in its attempt to replace that removed from farther down, or, the fluid escaping down about the cord allows more blood to distend the vessels of the brain. Effort and stooping, allowing an increase of the blood content of the brain, unsupported by the balanced amounts of cerebrospinal fluid, might cause or increase the headache. The recumbent attitude apparently adjusts the balance. The localization of the headache, however, at the back of the head, would suggest the first explanation, namely pressure on the foramina and the fact that cerebrospinal fluid can be withdrawn from the ventricles in a case of hydrocephalus and no headache result, even if the patient walk about immediately, might point against the cerebral hyperaemia causing headache in good health. The question of variation of blood circulation in the brain suggested to me that one might be able to learn something about the disturbances of blood content in the head in health, and without the disturbances of cerebrospinal fluid, in the case of caisson workers and divers, and so I communicated with a number of organizations who employ men working as divers and in caissons. One might assume that the increased pressure of the water or air on the soft parts of the body could drive extra blood into the head, and I inquired if these men at any stage in their work, developed headaches. (This question, of course, did not include those entering or emerging too quickly.) The answer was that headache was not complained of under these circumstances, in health.

One other set of circumstances remains to be investigated, and that is the headache in brain tumor.

I think it is the consensus of opinion that it is only those brain tumors which block the circulation of cerebrospinal fluid from one ventricle to another that cause headache. As a rule the cranial contents are otherwise healthy in cases of brain tumor, and so it would seem that the effect of blocking the circulation of cerebrospinal fluid might be due to the compression of the brain substance or its contained blood vessels, or to the tension of the meninges. Decompression relieves the headache. This allows of great stretching of the brain substance and its vessels in the formation of the hernia cerebri, and so this process is not only painless, but affords relief. This stretching may allow of dilatation of the foramen blocked and so effect restoration of cerebrospinal fluid circulation. If so the ependymal lining of the ventricles is not sensitive to stretching, and by the same argument the leptomeninges would seem to be insensitive to stretching processes. The tension of the dura mater has been released, and the headache relieved, and yet we find the only sensitive part of a healthy dura mater would seem to be its blood vessels, and certainly the dura mater cannot be the only one of the cranial contents that can initiate pain, since it is not affected by lumbar puncture. If it be sensitive in itself or its vessels, other parts, such as the margins of the foramina must also be sensitive.

It can be demonstrated in many parts of the body that the blood vessels, arteries more than veins, are sensitive to injuries such as compression and dilatation, if these are excessive.

After removal of cerebrospinal fluid from the ventricles of a hydrocephalic, after decompression in the case of a brain tumor, in divers and caisson workers, the tone of healthy blood vessels can effect adjustments. In states of compression the vessel cannot assert any control and so must bear the full force of the mechanical disturbance.

I would suggest, therefore, that possibly compression of the blood vessels may be the explanation of headaches of mechanical origin.

Of the mechanism of the production of headache in intracranial disease, such as meningitis, it does not seem necessary for me to say much. Abscesses and gummata must cause a certain degree of headache according to the intracranial pressure they exert, but, when close to the meninges, they probably set up pain of meningeal origin. The occurrence of abscesses and gummata in the depth of the brain without pain would seem to indicate that the brain tissue itself is insensitive except near its surface. One hardly needs to speculate on the causation of headache from meningitis, either local or diffuse. It is common to all viscera that their capsules or coverings become painful during inflammatory processes.

Cerebral haemorrhages would appear frequently to cause headaches when they are not profuse enough to cause coma or where the patient has regained consciousness, but the frequency with which such patients give a history of headache for a varying time before the occurrence of apoplexy would seem to confirm the suggestion that the blood vessels, especially when diseased, may be the point of origin of many headaches.

It is probable that cerebral haemorrhage also causes headache by increasing the intracranial pressure, and I am persauded by a series of cases which I have collected, that subdural haemorrhages may cause intense headache fairly well localized and which being instantly relieved by lumbar puncture, would indicate that the tension of the dura mater causes pain, though not necessarily in itself, but possibly in its vessels. In speaking of the relief of headache in brain tumor by decompression I suggested that the sensitive part of the dura mater might be its blood vessels.

Headache is so frequently associated with disease of the accessory sinuses that very close inquiry is here indicated. This is true both of acute and chronic conditions. I would like to emphasize a statement that X-ray examination will not always indicate that local disease in the nose and its accessory sinuses exists to the degree that headache will result, and so a negative X-ray should not be used to exclude this possible source of an otherwise suggestive headache.

Headache may be caused by disease of the nasal accessory sinuses by absorption of toxin, by accumulation of the mucous secretion in obstructed drainage channels, and this whether the contents be purulent or merely mucous, and by negative pressure in the sinus which may be caused by turgescence of the drainage channels and subsequent absorption of the contained gases.

The increased pressure of retained secretion and the negative pressure in cases of blockage perhaps emphasize best a phenomenon to which I should like to refer again, namely the disproportion between the strength of sensory stimulus and the resulting headache.

Whatever may be our conception of the disturbance of pressure in these sinuses, most particularly the negative pressure sometimes occurring, I think we shall all agree that the headache is surprisingly severe in proportion to such a slight mechanical force, when we consider what a slight degree of pain this force would cause applied elsewhere on the surface of the body. It shows also the diffuseness which I have spoken of as being characteristic of deep pain and visceral pain.

I would emphasize again how little aid X-ray examination may give in these cases. For the production of severe headache it is not necessary that a very thick pus should accumulate, nor that the lining membrane of the sinus should be much thickened. I have frequently seen patients immediately relieved of headache by a nasal spray or a simple inhalation containing menthol. If these measures are followed by the blowing out of a muco-purulent secretion one feels justified in thinking that this secretion has been responsible for the headache. I would, however, further suggest that two other factors may be concerned. A flushing of the mucous membrane in its depths may relieve it of toxin and also the sedative action of the spray or inhalation may be sufficient to relieve the headache by abolishing or reducing the afferent impulses that prolong and aggravate the headache.

Perhaps I might elaborate at this point what I have suggested about slight afferent impulses causing such great pain in the form of headache. It is necessary to bear in mind that these afferent impulses must probably be continuous, since an interruption of their flow results in an immediate relief from the headache.

Another strikingly simple expedient will give at least temporary relief, but, since it is so simple, it is probably of great importance in understanding headache. I refer to the application of a cool hand to the forehead, or to massage of the scalp and such like popular remedies.

I attempt an explanation of these measures because it may lead to a better understanding of the processes at work and may be an aid to treatment. I give the explanation on my own authority, admitting that I am taking a liberty with one of Head's theories.

He points out that impairment of epicritic or superficial sensibility allows the protopathic or deep sensibility to obtrude itself as discomfort or even pain, and so ascribes to epicritic and superficial sensibility an inhibitory influence over those more primitive sensibilities. I would suggest that, in applying cold, heat, or counter irritation to the surface, we are stimulating the normal superficial sensibility to greater intensity and so again inhibiting a deep sensibility pathologically raised by disease.

One sees at times, either in operation or post mortem, great accumulations of granulation tissue between the dura mater and the cranial bones near the sinuses. These cases are characterized by long continued and severe headache which obstinately resist all forms of treatment.

Their possible existence is to be kept in mind when a case of headache apparently associated with a catarrhal process, proves intractable.

Headache in association with ear trouble is in my experience, practically non-existent. If ear disease should lead to uncomfortable sensations within the head, these are usually described as pain, rather than headache, and tenderness of the skull is common. The importance of this observation is that pain in the head, associated with ear disease, very probably indicates an extension of the disease into the cranial cavity, and one must consider extra dural abscess or brain abscess, menigitis or some such condition which cannot be treated by local measures in the ear.

In dealing with headache of functional origin one must be very careful of the use of this term. I cannot discuss it at length, but I feel compelled to say that a patient found to have a functional complaint is not to be held in any way morally culpable, in other words, his complaint is not to be considered as a deliberate fabrication.

Whether a person can truly experience pain in any part of the body without any organic cause is a matter of debate too large to discuss for the present. We are all familiar with referred pain, but that type of pain occurs on the surface of the body, and is probably never a proper term to apply to headache. I would, however, speak of a type of headache often referred to as reflex headache. Two examples of this are those from the rectum and those from the eye, of which I hinted earlier in my paper.

A person who has missed his morning defaecation may develop a headache. Later in the day, he has a movement and instantaneously the headache leaves him. This surely cannot be due to a constitutional toxaemia; the relief has been too rapid; but it must be due to some type of afferent impulse travelling from the lower bowel to the head and expressing itself there as a headache. If this be possible we must be very careful in satisfying ourselves that a headache has no organic basis.

Headache from eye strain I think comes under the same explanation. It may have at least three types of afferent impulse to cause it, either a paradoxical sensation from an overworked optic nerve, or abnormally strong afferent impulses from the internal muscle of the eyes, or the same from the external eye muscles. The latter can be very easily produced experimentally by anyone who can voluntarily hold the eyes for a very few minutes in a position of internal strabismus. It is difficult for me to express how strongly I feel about the effects of afferent impulses from different parts of the body which, under normal circumstances do not enter consciousness, but which, having been aggravated or prolonged, may produce most unlooked for results.

Many occipital headaches are caused by nervous people holding the neck, as well as perhaps the rest of the body, in a state of tension, and so creating abnormally strong deep afferent impulses. These from the eyes and from the neck then follow the rule of deep sensations, and tend to become diffuse and poorly localized.

There is another sensation not quite accurately described as a headache, but variously described by different patients, depending on their command of language or desire for accuracy. Sometimes it is called a sense of weight or pressure instead of headache.

Almost always this is found in those who are depressed or overworked, and it is not unlike what may be experienced by one who is experiencing profound grief, excitement, or even severe and sustained intellectual work.

Perhaps we can expect of the brain, as we do of other organs of the body, that excessive use will cause local discomfort, commonly called fatigue.

Those depressed cases and worriers can certainly be relieved in proportion as their interests are drawn away from themselves and their problems, and so interrupt the mental strain.

When I speak of headaches as due to chemical changes I am not posing as a biochemist in any sense of the word, and I hope to learn from the discussion much more than I can contribute, but I take the liberty of indicating a few possibilities. The simplest form of headache of chemical origin that suggests itself to us is that due to carbon dioxide poisoning as in a poorly ventilated room. Exactly how small a variation in the chemistry of the blood by this process is adequate to cause headache hardly matters. It is sufficient for us to realize that the central nervous system is very sensitive to changes in the blood composition that are not necessarily disease processes.

Abnormalities of water intake are not uncommon causes of headache. Persistent or habitual low intake is probably not a very common cause, but one or two days deprivation of water, as practised, for instance, in the concentration test of the kidneys, may cause severe headaches.

Other people complaining of habitual headaches are sometimes found to have adopted a fad for drinking large amounts of water, and they may experience relief in a very few days on the modification of this habit.

The explanation for these headaches as well as those due to more definite pathological causes, may be found in the mode of resorption of cerebrospinal fluid. In the publication of the Association for Research in Nervous and Mental Diseases concerning the Human Cerebrospinal Fuid, a number of experiments by Weed and Hughson are recorded, which seem to indicate that the fluid is resorbed chiefly by the basilar dural sinuses, but that, after intravenous injection of hypertonic saline, the fluid could be traced through the meninges into the perivascular spaces and into the ependymal lining of the ventricles, and it is further suggested that changes in the concentration of the blood occurring more naturally may influence the resorption of the fluid. It has not, of course, been proved that these disturbances cause headache, but it is a fairly safe assumption, and when we are dealing with such substances as are retained in nephritis, it is not hard to picture, in addition to any gross mechanical disturbances, the finer osmotic influences as well as the direct intoxication of the sensitive parts.

Menigitis would obviously disturb resorption, and even a severe rhinitis or sinusitis might well be accompanied by a congestion or stasis in the most important locus of resorption, usually the cavernous sinus.

How frequently a headache is accompanied by a feeling of heat in the face and head, and how a depletion of the body fluids by diuresis or more particularly purgation relieves headache, is a matter of common knowledge, and suggests disturbances of resorption by congestion.

I hardly like to touch on migraine for the reason that I have little confidence in what I might say about it.

I would emphasize, and at the same time limit the functional part of it. Migraine has a great tendency to be familial in its occurrence, and this strong factor of suggestion in a household may well account for some cases among the more neurotic members. Nevertheless migraine is not confined to the neurotic, and some of the manifestations in the more severe forms convince us that a very real disturbance takes place. I refer to the transient hemianopia that some patients report, and which can be mapped out accurately with a perimeter. This would place the disturbance posterior to the optic chiasm, and when we see, in the same or other patients, transient aphasias, we are almost compelled to think of a vascular lesion over the cortex.

The frequency with which attacks of migraine pass off with an attack of vomiting directs our attention to the gastro-intestinal tract, and perhaps in particular to the stomach, and many cases of improvement are reported from alteration in diet and intestinal antisepsis.

Adopting this theory of origin in preference to the idea that the vomiting might be of central origin, would be consistent with what I have discussed under the head of chemical disturbances; or the condition might be due to local spasm or dilation of vessels from toxin acting locally. But again, and because the diagnosis of migraine is sometimes made too readily, I would refer to my remarks on local intoxication from nasal conditions, and also on abnormal afferent impulses from the nose and from the eye, and ask for a most complete examination before accepting this diagnosis.

I have said very little on actual diagnosis in any particular type of case. My position here today renders me diffident about doing so, when my paper is to be honored by discussion under various specialists. I do suggest, however, a few simple rules which may add significance to a carefully taken history.

It may be noted that I have discussed almost entirely chronic or habitual headache. Those of acute onset are not likely to be of such importance or their origin will probably be more obvious than headaches whose origin has been lost in a multitude of illness, or which have come on insidiously. I am in the habit of asking of patients where their headaches are, how often they occur, how long they persist, what seems to produce them and what the patient has found for himself will aggravate them or relieve them.

Most important of all, is the question as to whether they wake the patient at night or keep him from going to sleep. These cases should always demand a careful investigation into the possible existence of three diseases, brain tumor, nephritis and syphilis.

I would suggest that headaches coming on frequently and with suddenness are very significant of sinus trouble.

Obviously, when reading seems to bring on headache, we are inclined to think of eye strain, and yet how often in the realms of neurology and psychiatry we find pain in the eyes and photophobia where no eye strain or other abnormality of the eyes can be discovered. I do not wish to underate the importance of eye strain, but merely to urge an open mind.

Of what value this paper may be I cannot say. Certainly it is incomplete, and the problem is far from solved. Many disappointments have demonstrated this to all of us. My object has been to intimate a minimal knowledge of possibilities that practitioners should possess whether in general practice or in a specialty, so that we may not hear men, from their individual point of view, stating that this or that condition is the commonest cause of headache.

THE DIAGNOSIS OF PERNICIOUS ANEMIA*

(Based on a Study of 143 Cases)

By JOHN A. LICHTY, M.D., CLIFTON SPRINGS, N. Y.

SO long as the nature of pernicious anemia is not more fully understood than at present, any curative, and especially any preventive measures proposed for this condition will be largely unsatisfactory.

The cause of pernicious anemia is not known. No constant pathology has been recognized. There is even not any agreement on the part of leading clinicians as to the symptom complex which constitutes this so-called disease.

If our present day knowledge of such well established diseases as typhoid fever, or malaria, or syphilis, were reduced to that of our present understanding of pernicious anemia, we would be in a position to appreciate the better our incapacity as to the problems of pernicious anemia. Under these circumstances it seems well that from time to time contributions be made from various standpoints in the hope that a fuller understanding may result.

It is the purpose of this paper to present the clinical aspect of pernicious anemia, especially from a diagnostic standpoint, as it occurred in some 150 consecutive cases as they came and went throughout about 25 years, or from 1897 to 1924.

It might be well to show at once in what order these cases occurred and what the outcome was. The division of cases is rather arbitrary—

TABLE I.—*Incidence.*

Period	*Number*	*Living*	*No Report*	*Dead*
I (1897-1911)	37	1 (since 1905)	0	36
II (1912-1917)	36	0	7	29
III (1918-1924)	70	2	9	59
Total	143	3	16	124

In the first period of fourteen years spent in general practice 37 cases were observed, an average of 2.6 per year. In the second period covering five years of hospital and consultation practice 36 cases were seen, an average of 7 cases per year, while in the third period between 1918 and 1924, six years, 70 cases came under observation, an average of almost 12 per year. It will be noted that the third period covered a time when on account of the war and concomitant circumstances people were under great stress and strain. This period also happens to be that of *blood transfusion* as a more or less routine treatment. It is worthy of note that from 1911 to 1923 the number of new patients of all kinds seen each year varied very little. It is evident that the incidence of pernicious anemia in the third or last period was about twice that of the second period, though the number of new patients of all sorts remained about the same.

TABLE II.—*Analysis.*

Cases of Pernicious Anemia	Males	75
	Females	68
Age (years)		
Average		50
Males		55
Females		41
Youngest (female)		2
Oldest (male)		79
Occupation		
Out-door work (including 4 coal miners)		30
In-door work		113

The criteria upon which these cases were diagnosed varied very little in the 25 years during which they occurred. About the only advancement towards efficiency in diagnosis which seemed to have been made was that on account of a greater interest in pernicious anemia on the part of both physician and laymen the diagnosis was made more promptly and with greater assurance as time went on.

SYMPTOMATOLOGY

The leading symptoms were presented by the patients in about the following order:

TABLE III.—*Symptoms and Signs.*

Prodromal—	Shortest	2 years
	Longest	20 years
First noticed—		
Weakness	55	
Digestive	55	
Nervous	14	
Circulatory	9	
Characteristic skin	63	
Diarrhea	63	
Parasthesia	58	
Cord Symptoms	40	
Teeth	64	
Glossitis	94	
Enlarged Spleen	19	
Biliary System	10	
Remissions	68	

1. *Weakness*, more or less general, but more frequently referred to the knees. It was unexpected to the patient and no satisfactory explanation could be given. It remained a part of the disease picture practically throughout the entire course; 55 patients noticed this as their earliest symptom.

2. *Disturbances of Digestive System,* such

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as heaviness after meals, periodic loss of appetite, burning of the tongue, and a tendency to looseness of the bowels, especially early in the morning or immediately after meals. 55 patients gave this as the first symptom. 94 had from time to time a glossitis.

3. *Disturbances of Nervous System.* Fourteen patients spoke of early nervous symptoms which they could not well describe. In some they were like a posterior sclerosis. Forty in all had symptoms suggestive of tabes dorsalis, and fifty-eight others had numbness of hands or feet, or both.

4. *Palpitation.* A few, nine in all, spoke of a heart consciousness, or a throbbing of the vessels of the neck which was annoying. A few had occasional nose bleed.

5. *"Liver trouble."* Ten complained of their complexion, and thought they were jaundiced on account of a supposed liver or biliary tract disease, which they described rather accurately and convincingly.

Among the other symptoms and signs which were noted in a large number of patients were:

6. The characteristic lemon yellow color of the skin. 63 were noted. No doubt all had this at one time or another.

7. *Carious teeth.* This was found in 64 patients.

8. *Enlarged spleen.* In 19 patients this was found. In as much as the spleen was palpated at one time and again not palpated, it is likely that there were more than 19 patients with enlarged spleen, only they did not happen to be examined when the spleen protruded from beneath the costal margin.

9. *Remission.* These are most disturbing phenomena of pernicious anemia, probably more so to the physician than to the patient. It is on account of these that it is difficult to tell when a case of pernicious anemia really begins. In one of the patients of this series it appeared that the case was rather acute, but upon considering the patient's own account of former illnesses it seemed justifiable to conclude that the same condition had existed twenty years previously. It is of course the experience of most of those who have followed these cases that a long interval may occur without any symptoms. My own experience with these patients is that a searching examination of the blood, done routinely on the apparently cured patient will after all reveal a suspicion of the disease.

10. *Maintenance of weight.* This is spoken of as being characteristic and it is a fact that the disease may continue for a long time without any loss of weight. In the immediately fatal cases, however, the weight will go down. In reporting 110 of my cases eight or ten years ago, there was no loss of weight noted in 29 cases, in 6 it was under 10 lbs., in 33 it was between 10-20 lbs. and in 14 between 20-30 lbs.

11. *Oedema* of feet appears as the anemia progresses, and

12. *A low grade of temperature* develops as a terminal phenomenon. It frequently is very high just before death.

Such a group of symptoms constitutes a disease picture which is of itself suggestive, but only so.

LABORATORY TESTS

The laboratory tests necessary to arrive at a diagnosis are none of them sufficient in themselves, but some are highly corroborative.

TABLE IV.—*Laboratory Tests*

1. Blood	
(a) High Color Index	119
(b) Leukopenia	112
(c) Nucleated Reds	38
(d) Poikilocytes	143
(e) Macrocytes and Microcytes	143
(f) Corpuscular Volume Increase	
(g) Macht's Toxic Substance	
(h) High Icteric Index	
2. Gastric Contents—Achylia	143
3. Stool Test	
(a) For Parasites	
(b) For Blood	
4. X-ray—To exclude neoplasms, etc.	

1. Examination of the blood is of first importance. A high color index, associated with a *leukopenia* and with occasional nucleated red corpuscles is the strongest evidence of pernicious anemia. With this blood picture there goes also the irregularity in shape and size of the red corpuscles which was found in all cases; exact measurement of these corpuscles has given prognostic as well as diagnostic information. The determination of the color index of the blood, which is usually above the normal in pernicious anemia, and the estimation of the toxic substance of the blood according to Macht's method are confirmatory.

In the series of 143 cases presented, 119 had a color index above one, 112 had a leukopenia at the time the diagnosis was made, and in only 38 were nucleated erythrocytes found. Repeated blood examinations should be made in doubtful cases. Also a Wassermann test and a blood culture should be done. The Wassermann test was of course not available in the beginning of this series but later two patients showed a positive reaction. It was interpreted as a coincidence.

2. *Examination of the gastric contents* is to my mind of the utmost importance. In my earlier work I found it impractical, and at times impossible to do a gastric analysis in all cases but of the 102 or 106 in which it has been done there was an achylia gastrica. At present I would refuse to make a diagnosis of pernicious anemia in a patient who has a trace of free hydrochloric acid in the stomach content.

Studies of the acid base balance of the body have suggested various indirect methods of demonstrating achlorhydria where gastric analyses cannot be obtained. Dr. Hubbard, working in our laboratory has made an original investigation of one of these, the change in reaction of urine known as the alkaline tide, and has shown it to be of value in clinical studies. The use of this method in cases where gastric analyses cannot be obtained gives information about the probable presence or absence of hydrochloric acid in the stomach. This determination is of value not only in making the diagnosis but also in establishing a helpful treatment for pernicious anemia. The question is occasionally propounded as to whether the achylia is primary or secondary in these cases. A number of my cases of achylia with normal blood picture were kept under observation, the longest for a period of twelve years, before the symptoms of a pernicious anemia appeared, (this later proved fatal.) Another question occasionally propounded is whether the patient with an achylia in health, and later suffering from pernicious anemia, ever had a normal free HCl in the stomach.

In 1906 I saw a male patient, aged 51 years, who had symptoms of peptic ulcer. His gastric contents were: Free HCl_{31} combined HCl_{19}, and a total of 73. His blood showed a secondary anemia at all times. After a year's treatment he seemed well. In January 1921, or 15 years after the peptic ulcer symptoms, he returned to the hospital following an ethmoiditis. He was pale and had progressive gastric symptoms. An achylia was found. The seriousness of the condition seemed to warrant an exploratory laparotomy. Later the blood picture of pernicious anemia was recognized. In June 1921, the patient died. The autopsy revealed the characteristic negative findings of pernicious anemia.

3. Another laboratory examination is that of the *feces*. This is largely for intestinal parasites, and for traces of blood. An interpretation of the positive findings may lead to the diagnosis.

4. *An X-ray Examination* of the gastro-intestinal tract should be done in all suspected cases for at least two reasons. It is not well to interpret a case of achylia gastrica without searching for other conditions such as carcinoma somewhere in the digestive tract or elsewhere; a condition usually associated with the absense of free HCl.

General Consideration

With a history describing such symptoms and signs, and with such corroborative laboratory results, the diagnosis of pernicious anemia may be made. But to the experienced and careful clinician it will necessarily always remain a tentative diagnosis until the patient dies, or until the post mortem findings are available.

The reason for this is of course that there is no pathognomonic sign or symptom, and there are certain conditions or diseases which at times so clearly suggest pernicious anemia. Among these are:

Table V.—*Diseases Suggestive of Pernicious Anemia.*

1. Achylia Gastrica
2. Tropical Sprue
3. Fish Tape Worm Anemia
4. Carcinoma of Gastro-intestinal Tract
5. Early Addison's Disease
6. Other Primary Anemias
7. Certain Secondary Anemias due to
    (a) Hemorrhoids
    (b) Uterine Fibroids
    (c) Nephritis
    (d) Arteriosclerosis

1. *Achylia Gastrica,* already mentioned. I am in touch with a patient now for over thirty years who has an achylia but the blood picture of pernicious anemia is not yet evident. She is 58 years old. There are certain persistent symptoms which are quite suggestive. Time only can tell definitely what will happen.

2. *Tropical Sprue.* In the abstract the differentiation seems easy, but in the concrete individual patient, the case seems at one time to be one condition, and the next, the other. Of the patients suffering from sprue coming under my observation the outstanding difference distinguishing it from pernicious anemia was the persistence of the diarrhoea and the early and persistent low weight. The finding of monilia is considered by many confirming factor.

3. Carcinoma of the gastro-intestinal tract, or most anywhere that the neoplasm cannot be palpated, or located by an x-ray examination.

4. Addison's Disease, in the early stage, or before the bronzing of the skin is definitely recognized, is quite confusing.

5. Aside from these diseases there are certain conditions characterized by a mild anemia which form a group usually reviewed when pernicious anemia is suspected. These are chronic nephritis, incipient tuberculosis, angina pectoris and general arteriosclerosis.

6. And finally there are the various diseases included under the class of primary anemias, such as splenic anemia, the leukemias and others which in their various stages may present a confusing blood picture. In recent years, or since the nerve lesion and certain nervous phenomena occasionally associated with pernicious anemia have been called to our attention, it seems to be increasingly difficult to interpret certain early manifestations of the disease. These are tingling of the hands and feet and disturbance of the knee reflexes.

It is always interesting in the individual case to speculate on the etiology. The patient usually has an opinion to offer when it is requested, and sometimes it seems of worth. The following causes have been suggested:

Table VI.—*Suggested Causes.*

1.	"Stomach and Bowel Trouble"	12
2.	"Liver Trouble"	15
3.	Influenza	14
4.	Nervous Strain and Over-work	(?)
5.	Typhoid Fever	3
6.	Heredity	7

More have spoken of over-work and nervous strain than those of having other conditions, and it usually appeared plausible.

Comments and Treatment

Table VII.—*Treatment and Results.*

Hydrochloric Acid	143
Hygienic and Dietetic	143
Transfusions	45
Colon Lavage	(?)
High Protein	(?)
Record of Death	91
Autopsies	5
Living	3+

In reviewing the results with the various treatments for pernicious anemia which have been attempted throughout the past thirty years, one is impressed with the absolute failure of all treatments. The most promising of these treatments was blood transfusion and yet according to the statistics of many, including my own, the mortality has remained the same. It must be said for this treatment, however, that it has been of great worth in the acute exacerbations, where death seemed imminent. Transfusion in these cases seemed for the time to snatch the patient from the grave. My own experience leads me to conclude, however, that the patient was usually left with a certain lack of resistance which only hurried on the next acute exacerbation, and that in the end life was probably not prolonged. At one time about a decade ago when transfusion for penicious anemia was accepted with the greatest favor, a report from Johns Hopkins Hospital gave the following results in 363 cases. Of 31 patients transfused, 6, or 19% had died, and of 332 patients not transferred, 52, or 15.5% had died. These figures are of very little significance when one realizes that at the present time probably all, whether they had been transfused or not, are dead, and also when one realizes that of those who may happen to be living, the diagnosis may be justly questioned.

The present treatment for pernicious anemia,—the high animal proteid or "liver treatment,"—has made a profound impression upon the medical profession, as well as upon the laity.

Probably no other treatment has yet been suggested which has afforded the simplicity in application, and the immediate more or less encouraging results which this treatment promises. It is too early even to predict what the outcome of this treatment will be. In the Clinic at Clifton Springs the results have been rather promising, but nothing more definite can be said than this at present. Reports are coming in and statistics are already available. It is our impression from these early reports that in the enthusiasm many doubtful cases of pernicious anemia, that is, anemias of all sorts, may be included in the statistics. Hence the necessity for more careful clinical study. Also that some of the already accepted measures for the treatment of this baffling condition, such as intensive hydrochloric acid medication and frequent transfusions will be discarded in cases where such measures may be helpful in prolonging life. There is no reason why the liver fed patient should not also take hydrochloric acid continuously, and also have a transfusion when a crisis occurs.

THE SELECTIVE TREATMENT OF FIBROMYOMA OF THE UTERUS*

By JAMES A. CORSCADEN, M.D., NEW YORK, N. Y.

EFFICIENT management of fibromyoma, or more strictly, myoma of the uterus is of great importance to the community because of the frequency of disease, the increasing economic importance of womankind, the great variety of methods of treatment available, and the diversity of the factors which demand consideration.

Fibromyoma of the uterus is a new growth arising in the myometrium, composed, in the pure type, of interlacing bundles of smooth muscle tissue supported by fibrillary connective tissue strands. The smooth muscle resembles intimately that of the myometrium except that there is greater variation in the size and shape of the cells. The supporting fibrillary connective tissue seldom presents a picture that would suggest a diagnosis of fibroma. This distinction is important because fibroma in other parts of the body changes with considerable frequency into fibrosarcoma and sarcoma, and may become a metastasizing malignant tumor, while myosarcoma developing in a fibromyoma is a pathological curiosity in the autopsy room.

"Fibroids" were first actively treated by the operation of hysteromyomectomy, usually by drawing the entire mass out of the abdomen, transfixing its pedicle, and beneath the transfixing needle throwing around some form of ligature. The mass was then removed and the ligatures allowed to slough off. Death from infection and secondary hemorrhage was so frequent that this maneuver was withheld until bleeding or other symptoms became extreme. About 1860, Hegar, observing the shrinkage of these tumors after the spontaneous cessation of menstruation induced an artificial menopause by removal of the ovaries and observed the same shrinkage. In 1888, Dr. J. Riddle Goffe, now on service at the Woman's Hospital, New York City, was the first to ligate the pedicle on either side by ligatures which transfixed the cervix, remove the uterine mass from the cervix, drop it back into the abdomen, and close the abdomen. In 1894, Baer first ligated the uterine arteries, thus introducing the operation as it is now performed. X-ray was first applied to a myomatous uterus by Freund in 1899, and was introduced through a communication of Albers Schoenberg in 1902. In this same year radium was first applied. By 1909, radiotherapy had become an established method of treatment. This allusion to the historical development of the treatment of the myoma is made to point out that the methods of treatment now in vogue originated within a comparatively short space of time and that the frequent statements that radiotherapy is more or less new or experimental are due to the local unavailability of and unfamiliarity with these agents rather than to actual novelty or recentness of their employment.

At the present time, then, we have seven distinct types of procedure which are applicable to varying conditions: when their variations are considered there appear eleven distinct methods, each indicated for some particular combination of circumstances.

The application of these methods follows along three lines of thought—the management of symptoms; a consideration of lesions present at the time or likely to develop; and, thirdly of the injurious effects of the procedure employed. The proper management of a fibromyoma of the uterus depends upon the selection of one or more of these eleven methods for application to the particular indications obtaining in the individual: there can be no broad generalizations. This paper is the expression of a viewpoint which has developed from a study of 740 cases of fibromyoma of the uterus in a clinic where the operative and radiotherapeutic facilities and the experience of the personnel are such as to minimize any attitude of favortism toward one method or the other.

Of the methods indicated in Table I, the conservative management of fibromyomata was almost universal up to the latter part of the last century and was justified by the small number of disasters which attended this procedure. Even with our modern methods of active treatment it is employed in by far the majority of cases, mostly, it is true, because the masses are not discovered, but also where the tumor is small, without symptoms, or causing only slight menorrhagia or dysmenorrhea. Intelligent hygiene with considerable liver in the diet, and specific therapy such as salvarsan for syphilis, will in a fair proportion of cases give good results when these are the only symptoms. When pain, tenderness, or rapid growth indicate degeneration, inflammation or other change this method becomes more and more neglectful. The consequences must be carefully weighed against the harmful effects directly caused by the other more active methods.

Curettage will have no effect on a fibromyoma, but will establish the absence of a carcinoma, and by removing polyps and other intrauterine pathology, stop bleeding and thereby improve the general condition. Also a small number of cases will be relieved of their dysmenorrhea.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 10, 1927.

SUMMARY OF METHODS AND INDICATIONS

TABLE I

	Observation and General Treatment	Curettage	Myomectomy	Supravaginal Hysterectomy without Ovarectomy	Complete Hysterectomy without Ovarectomy	Hysterectomy with Ovarectomy	Ovarectomy	Radium, Sterilizing dose	Radium, Partial dose	X-ray, Sterilizing dose	X-ray, Partial dose
Symptoms											
Bleeding	1	1	2	4	4	4	3	3	2	3	2
Gen. Condition	1	1	2	4	4	4	4	3	3	3	3
Dysmenorrhea	1	2	?	4	4	4	4	4	3	4	3
Other pain	0	0	1	3	3	3	2	2	2	2	2
Urinary Sympt.	0	0	1	3	3	3	2	2	1	2	1
Digest. Sympt.	0	0	0	1	1	1	0	1	1	1	1
Swelling legs	0	0	3	4	4	4	2	2	1	2	1
Toxemia	0	0	3	4	4	4	2	2	1	2	1
Pathology											
Size of Mass	0	0	3	4	4	4	2	3	1	3	1
Degeneration	0	0	4	4	4	4	2	2	1	2	1
Extra-uter. Path	0	2	4	4	4	4	4	2	2	0	0
Pressure	0	0	3	4	4	4	2	2	1	2	1
Subseq. Degen.	0	0	3	4	4	4	3	3	3	3	3
Subseq. Sarcoma	0	0	3	4	4	4	3	3	3	3	3
Subseq. Carci.	0	1	0	2	4	?	?	?	?	?	?
Effect of Oper.											
Death	0	—1	1—5%	½—3%	1—6%	—1	½%	—1	—1	—1	—1
Postop. Distress	0	—1	—4	—4	—4	—4	—4	—1	—1	—1	—1
Economic Loss	0	—1	—4	—4	—4	—4	—4	—1	—1	—1	—1
Hot Flashes	0	0	0	—2	—2	—4	—4	—4	—4	—4	—4
Nervous Sympt.	0	0	—1	—1	—1	—1	—1	—1	—1	—1	—1
Sex Character	0	0	0	0	0	0	0	0	0	0	0
Libido	0	0	0	0	0	—1	—1	0	0	0	0
Blood Pressure	0	0	?	?	?	?	?	?	?	?	?
Fut. Pregnancy	0	1	1	—4	—4	—4	—4	—4	—2	—4	—2
Future Labor	0	0	—1	/	/	/	/	/	—3	/	0
Effect on child	0	0	0	/	/	/	/	/	—1	/	—1

Legends—Numerals indicate degrees of good or bad effects.
4=Best possible result.
—4=Worst possible effect.
/=Point to be ignored.
0=No effect one way or the other.

TABLE II

To show degree and rate of shrinkage

LENGTH OF TIME OBSERVED

MASS	*2 mo.*	*3-4 mo.*	*5-6 mo.*	*9 mo.*	*1yr.*	*1½-2 yrs.*	*3 yrs. and over*	*Larger*	*No reduction*	*Total number cases*
Mass reduced 30 per cent.										
25-38 yrs.		1								1
38 yrs. and over	1	4		3						8
Submucous	1									1
Large		3	3		2			1	1	10
Mass reduced 75 per cent.										
25-38 yrs.	1	1								2
38 yrs. and over	2	3	2	1	2	1				11
Submucous			1	1						2
Large	1	1	2	5	2	4	2			17
Mass reduced (impalpable)										
25-38 yrs.	1	2	2							5
38 yrs. and over	6	2	5	5	6	8				32
Submucous		3			2					5
Large				2	3	6				11
Total Number of Cases	13	20	15	17	17	19	2	1	1	105

"Submucous" indicates coincidence of intramural and submucous masses at all ages.
"Large" indicates masses larger than a three months' pregnant uterus at all ages.

Myomectomy should be reserved for those women who desire children. As a cure for sterility, it gives a prognosis of about ten per cent. The scar in the uterus will only be a slight handicap in her labor. As a cure of bleeding, except where the myoma is polypoid, for improving the general condition, and the elimination of other symptoms, myomectomy has not proven efficient. Amongst the group of cases who have required radiotherapy for uterine hemorrhage, there are twelve who have had a previous myomectomy or partial hysterectomy. In some of these new myomata had developed, in others the bleeding had evidently been functional in character, the tumor merely coincident. The mortality and morbidity is higher but the discomforts from the menopause less than those following hysterectomy.

Supravaginal hysterectomy is the method most frequently employed for the relief of symptoms and removal of diseased tissue. Because it eliminates the endometrium, it will stop all bleeding whether due to the tumor or not, and will relieve most cases of dysmenorrhea except those of ovarian origin which may continue as periodic pains although menstruation has ceased. It is better than radiotherapy for the elimination of pain occurring at times other than at the menstrual period, but should not be given too perfect a prognosis because pain in the abdomen associated with fibromyoma is often due to conditions outside of the uterus. Cases of carcinoma of the ovary and sigmoid, cholecystitis, gastric ulcer, pyonephrosis, and numerous cases of adnexal disease have been referred for treatment of the uterine condition because this was so obvious and the true condition so obscure. Pain with fibromyoma of the uterus demands a very careful diagnosis, as do the urinary symptoms. Relaxation of the pelvic floor, trigonitis, and tuberculous kidney have been the causes of urinary disturbance in women referred for management of their uterine tumors. In the case of the tuberculous kidney, I refused to do a hysterectomy through four cystoscopies: pus was finally obtained from the left kidney. Symptoms of toxemia (anemia without bleeding to account for it) and malaise are infrequent but occasionally important, and have been relieved by hysterectomy. In these cases there was a cystic or red degeneration. Heart disease or hypertension have not been improved, although the late Dr. Studdiford cites a case in which this was accomplished.

One of the most important phases of an abdominal hysterectomy is the opportunity for an exploratory celiotomy and the elimination not only of the uterine mass but possibly of other coincident disease. While this should not be used as a screen to cover up superficial diagnostic methods, it is one of the most important considerations, particularly in multilobular masses where one of the lobes is often found to be an important ovarian tumor Where edema and congestion indicate pressure from the mass, its removal is indicated. One such case was treated by radiotherapy because of the precarious condition of the patient. While hemorrhage ceased and her general health improved, the relief from the pressure was so slight that hysterectomy was performed as soon as her condition would warrant it. The mortality and postoperative course following hysterectomy is so well known that it need not be discussed here except to stress a point learned in the follow-up clinic — that convalescence, rapid for the first few weeks, is slow after the second month, and patients should be instructed to regard themselves as in need of varying degrees of care for a period of at least six months.

Up to this point supravaginal and complete hysterectomy may be regarded as giving the same results. The incidence of carcinoma of the cervix in stumps left in after supravaginal hysterectomy is frequent enough to demand attention and must be balanced against the increased technical difficulties and greater operative mortality and morbidity of the complete operation. If the cervix is diseased, it should be removed: if not, it should be managed as if there were no fibromyoma present. Prophylactic excision should be performed for cause and not routinely.

The question of the removal of the ovaries is still open. The conventional attitude is to leave them in. A few, as Dr. Graves of Boston, believe that the immediate disturbances from dysfunction and the high incidence of subsequent degenerative changes in the ovary demand their routine removal. The followup examination of the cases in this clinic seems to show that menopause symptoms are less severe and of more gradual onset where the ovaries were left in. At the same time the number of ovarian cysts which have developed in these cases is large enough to receive serious consideration. It is the practice, therefore, to remove the ovaries routinely in women over forty years of age and those in women below that age in which there are any important cystic changes at the time of operation.

Simple overectomy is seldom performed nowadays. I have done it in three cases of large myomata with massive vascular adhesions between the tumor and the intestines. In two of them the mass receded slowly with partial relief of pain and urinary distress which had indicated the operation. In the other, menstruation continued, evidently because some ovarian fragments had been left in: treated by X-ray the mass subsided with complete relief of symptoms. This procedure should be reserved for such complicated cases where prolonged and difficult dissection would endanger the patient's life. With the numerous methods of treating myomata at our disposal, a mortality from elaborate dangerous operative procedures seems unjustifiable.

Radiotherapy by radium or x-ray is the most frequent alternative to excision for fibromyoma. It may be given in doses which will stop menstruation and precipitate hot flashes characteristic of the menopause, in doses calculated to modify but not destroy menstruation, or again may be applied directly to the uterine mass in such a way as to avoid direct exposure of the ovaries. Specimens of uteri and ovaries following radiotherapy are not numerous. This speaks well for the method but deprives us of any large amount of material for study. We depend, therefore, upon our follow-up examination of the patient to determine what the anatomical and physiological effects have been. A sterilizing dose of radium or x-ray has stopped bleeding from all uteri where there has been no ulcerative process. Apparently, active or passive congestion are not sufficient to initiate bleeding where the menstrual stimulus is absent. If the bleeding comes from an exposed ulcerating surface like that of a pedunculated intrauterine mass (in the extreme case presenting in the vagina and obviously subject to trauma) the precipitation of the menopause will not stop it. The local caustic and sclerosing effect upon these ulcerating masses of radium inserted into the uterus may stop the bleeding, but the dangers incident to the sloughing process make this procedure much inferior to simple excision either of the intrauterine mass or of the uterus. Dysmenorrhea has been almost universally cured. The other symptoms indicated have been much less satisfactorily relieved than by hysterectomy. Here again the importance of the extrauterine causes of the pain, urinary and digestive symptoms must be emphasized. When these symptoms dominate the picture they place a much heavier diagnostic burden upon the radiotherapeutist than upon the performer of the exploratory celiotomy which should be made unless the symptoms have been satisfactorily explained in the preoperative diagnosis and found to be unrelated to the uterine condition.

The size of the uterine tumor is often the only indication for treatment. There is a fashion in this country to excise all masses larger than that of the size of a three months pregnant uterus. The effectual reduction of the larger masses by radiotherapy is questioned. Table II shows results in one hundred and five cases. Certainly a reduction of a mass the size of an eight-months pregnancy to one of seven or eight centimeters in diameter with very little interference with the daily activities of the patient is very satisfactory. Nevertheless, the more frequent occurrence of degeneration in large masses, the greater likelihood of diagnostic error, the anxiety of a patient reporting every month or two for measurement of the mass and the slowness with which a disfiguring enlargement of the abdomen disappears impel me to excise the large tumors. At the same time, the patient must be protected against the harmful effects of operation and if even minor contraindications exist should have radiotherapy considered.

The fear of coincident extrauterine pathological lesions has deterred many from using radiotherapy because of the possibility of leaving untreated dangerous conditions such as tumors of the ovary, and on the other hand of lighting up latent inflammation of the adnexa. Unless ovarian tumors can be certainly eliminated, the patient should without doubt have the benefit of an exploratory celiotomy. Two dermoid cysts have been removed, having been referred because X-ray treatment had failed to reduce the size of the supposed myoma. On the other hand, chronic salpingitis without symptoms or physical signs is of less importance and merits the same treatment as it would were there no coincident fibromyoma of the uterus. Amongst my cases there have been four infections following the intrauterine application of radium, two of which went on to abscess formation, every one originating in the uterus, spreading to the broad ligaments, none of them starting primarily in the peritoneal cavity. Moreover, we have deliberately treated with X-ray four women in whom hysterectomy was abandoned because of extensive adhesions with salpingitis, in one case tuberculous, with no evidence that the inflammatory process was lighted up. One woman suffering for two years from a tuberculous fistula following salpingectomy was healed after X-ray therapy. My experience would indicate that the inflamations occurring after radium therapy are for the most part simple operative accidents and not the result of electromagnetic waves upon a latent focus.

Acute degenerations of a fibromyoma following radiotherapy have been infrequently reported in the literature. I have not had this experience and feel that such an accident is likely to occur in those tumors which have already begun to degenerate and should reveal themselves by local signs of inflammation or by symptoms of absorption. The possibility of a coincident carcinoma of the uterus is often mentioned as a reason against using radiotherapy for myoma. To me the two problems have no connection. Before treating any fibromyoma of the uterus by either excision or radiotherapy, the absence of a carcinoma must be thoroughly established by examination under anesthesia and curettage. An operation designed for the removal of a fibromyoma of the uterus is inadequate for the treatment of a carcinoma.

The possibility of the occurrence of important conditions at a considerable interval after radiotherapy for fibromyoma has been stressed, particularly red and cystic degenerations and sarcomatous change in the tumor mass, and increased likelihood of carcinoma because of persisting chronic irritation. Of my cases none has given evidence of any except possibly hyaline degeneration in the tumor. There is an unconfirmed report that one woman developed carcinoma of the uterus two years after she had had radiotherapy. There has been no case admitted to the Presbyterian Hospital and few cases are reported in the literature of carcinoma of the uterus developing in a woman who had had radiotherapy for fibromyoma. The development of sarcoma in a fibromyoma is to me an academic and not a practical problem. Despite the reports of bizarre microscopic pictures, called sarcoma by many investigators of myomatous tissue, the autopsy rooms still remain as empty of women dead from sarcoma of the uterus as they did in the years before hysterectomy was so universally performed. Dr. Stout and I in studying one phase of this problem, could find in the literature only three cases of sarcoma which developed in fibromyomata previously treated by radiotherapy.

The dangers of this method are less than those of any of the operative methods. With a diagnostic curettage, however, there is the ordinary risk of operative accidents, such as embolism and infection, increased by the radium slough in the uterus. There is also some toxemia from any considerable dose of radiotherapy. The radiotherapeutic menopause (Ref.) may cause unpleasant symptoms, but has not produced important changes even in younger women, ten of whom under twenty-five years of age have been followed from nine to thirteen years.

Non-sterilizing doses of radium or X-ray are, like myomectomy, considered almost entirely from the standpoint of future childbearing. For the relief of symptoms, especially bleeding, they are unsatisfactory because of the varying susceptibility of the patients. Compared with the operation of myomectomy the results on sterility and in the relief of symptoms have been inferior to the operative method. When the uterus is studded with small masses, making myomectomy impractical, the partial dose may have a field. Comparing radium and X-ray, the former may be given at the same time as a diagnostic curettage which is in fact, always indicated; it produces in the long run not very much more discomfort than do X-ray treatments, and from the standpoint of convenience is less distressing to most women because it is incidental and finished with one application. Against the use of radium is the increased danger of infection due to the radium slough. X-ray may be given without interruption of the activities of the woman and avoids hospitalization. With large myomata there is a more rapid effect on the tumor by X-ray and greater certainty of producing the menopause because of the possibility of the ovary being lifted away from the uterine cavity, and consequently at a distance which makes the radium ineffectual.

Conclusions:

(1) The frequency of fibromyoma of the uterus, the great variety of available methods, and the diversity of the indications for treatment demand a careful selection of method.

(2) Expectant treatment is the method of choice in small symptomless tumors.

(3) Curettage will exclude carcinoma, cure bleeding due to certain intrauterine causes, and relieve dysmenorrhea.

(4) Myomectomy is reserved for women desiring children. Supravaginal hysterectomy is employed whenever the tumor becomes a menace to the patient as revealed by signs of inflammation, degeneration and rapid growth, and for bleeding from ulcerated surfaces. Complete hysterectomy is employed when the cervix would demand excision irrespective of the fibromyoma.

(5) Simple oophorectomy is performed in complicated cases where the completed operation would endanger the life of the patient.

(6) Sterilizing doses of radiotherapy are indicated for hemorrhage not due to ulceration, and for all other indications where hysterectomy is contraindicated. Non-sterilizing doses of radium or X-ray are employed only when child-bearing is desired and where myomectomy is impractical.

Corscaden, James A.: "The Radiotherapeutic Menopause: Its Significance and Management." *The American Journal of Obstetrics and Gynecology,* Vol. XI, No. 6, July, 1926.

POINTS OF CONTACT BETWEEN DERMATOLOGY AND OTHER BRANCHES OF MEDICINE*

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THE careful dermatologist has recognized for many years that if he is to get the best results in his practice, he must look upon a dermatosis as a symptom rather than a disease. It may be the most important symptom, and the disease may be confined to the skin and its appendages, but on the other hand the dermatosis may depend on a general infection, or on lesions in distant parts of the body.

There is a very large and as yet ill-defined group of eruptions which depend on focal infection. In the simplest cases of this group, the infection spreads by peripheral extension, or by external inoculation. An excellent example of this is an inflammation of the upper lip caused by infection with germs contained in the nasal discharge. The dermatitis may be very mild, appearing as redness and slight swelling, with itching, or it may be very severe, with much swelling and many pustules, or it may be anywhere in between. The severe cases are classed as sycosis of the upper lip, a region which is seldom, if ever, attacked by ringworm organisms. Treatment directed to the lip alone is usually without avail—the nasal condition must be treated also, and the source of infection must be sought throughout the nasal tract, including the accessory sinuses. A similar eruption may be dependent on a discharge from the ear. This is seen less frequently, as otitis media is less frequent than chronic nasal catarrh. It is commonest in these two groups to see the inflammation spreading directly from the nostril or the auditory meatus, but in some cases the infection is carried by some agent, as the hand, to a point removed from the primary focus, where it sets up an inflammation which may take the form of folliculitis, cutaneous abscesses, boils, or acute eczematoid dermatitis.

To this same group belong the cases of tuberculosis of the skin occurring on the buttocks, nearly all of which are due to infection with organisms discharged at the anus.

There is probably another element in the etiology of all these cases besides local inoculation of pathogenic organisms. We are familiar with the superficial crust of impetigo, which is simply a mass of dried pus and epithelial debris, and with the pustules of various sizes which are produced by staphylococci, and in both these instances the inflammatory reaction is strictly limited. In many of the cases which I have in mind, however, the reaction is not so well defined; there are crusts and pustules, to be sure, but there is also a variable amount of diffuse redness and swelling, an inflammation which is irregular, with no sharp borders, and which seems to involve the entire thickness of the skin over a considerable area. This is not the ordinary reaction of the skin to a virulent organism and I believe that the skin of these patients has been sensitized by toxins which have been absorbed from the primary focus.

The two particularly striking instances of this infectious dermatitis secondary to a local infection have come to my notice. One occurred in a group of young children varying from a year and a half to six years of age. All were in the children's ward of the New York Skin and Cancer Hospital, under treatment for eczema, so we may assume that their skins were abnormally sensitive. One of these children was subject to repeated attacks of coryza, with a profuse muco-purulent nasal discharge. If he was allowed to play with the other children while his nose was running, each had an exacerbation of his eczema, and treatment was unsatisfactory until the offender was isolated or his coryza relieved. The second instance was that of a girl with recurrent attacks of eczema, involving chiefly the face, but occurring on other parts of the body also, especially under the breasts. Treatment was unsatisfactory, the attacks occasionally yielding, for a time, but always recurring, with no apparent cause. She had occasionally a slight discharge from one ear, but she complained of no symptoms referable to the ear, and when first admitted to the hospital, there was no discharge. After a radical mastoid operation, the eczema disappeared.

An eruption of this genesis, when it can be recognized, should be taken out of the waste basket labelled eczema, and put in its proper pigeon hole of parasitic dermatitis. Whether anything will be left in the waste basket, still to be called eczema, after the removal of these cases, and of those cases of dermatitis caused by physical or chemical irritants acting from without, is a question as yet unsolved.

In addition to this spread of infection by external inoculation, hidden foci affect the organism in other ways which are perhaps even more important to the dermatologist, as they certainly are to the general practitioner. We are all familiar with the idea that rheumatism, endocarditis, and probably many other diseases, are caused by absorption from foci of infection of bacteria and of toxins which find lodgement in distant organs. It is now proved of many skin diseases, and suspected of others, that they have a similar etiology. Notable among these are the whole group of the erythemata, from urticaria on the one hand, to purpura on the other. These so-called diseases should be considered as symptoms, not as separate entities, for two reasons: first, because there are many border-line forms which are hard to place, and second, because each may spring from any one of several causes. Urticaria, as its name implies, is the wheal which is caused by contact with the nettle. Other external irritants, such as the jelly-fish, cause an identical eruption. These cases of external origin are rarely seen in city practice, where "hives" are commonly a symptom of the absorption of toxic material from the gastro-intestinal tract, the toxic material being a food-stuff to which the patient is sensitive, or some product of decomposition. Others, especially those characterized by prolonged and repeated attacks, seem to have no relation to the intestinal tract. The etiology of these cases is most obscure. Some are probably due to endocrine disorder—they certainly are relieved by adrenalin—and some are probabzly due to toxic absorption from a bacterial focus. Cases have been reported as due to syphilis. Closely allied to urticaria is angioneurotic edema, which differs from ordinary hives in that the swelling is much greater, though less firm, in the absence of pruritus, and in the fact that it can seldom be associated with errors of diet. The swelling appears suddenly, lasts a short time, seldom more than a few hours, and disappears about as suddenly as it came. It is best explained as a disorder of the vaso-motor mechanism, but that only pushes the inquiry one step further. What disturbed the vaso-motor mechanism? A circulating toxin is the most likely explanation. Next above urticaria are the various forms of erythema. A diffuse erythema following the ingestion of a food to which the patient is sensitive is well recognized, as is also a scarlatiniform erythema followed by peeling, which is caused by toxic absorption from the intestines. The eruption called erythema multiforme is more difficult to place. It is probably always toxic in origin, but there remains always the question of why the same toxin will produce this eruption in one patient and not in another. How did he get that way? The most diverse toxins have been incriminated: in some cases drugs, in most cases, particular articles of food or products of intestinal decomposition, but there still remains a large class where no such cause of intoxication can be found, and in these it is probable that the toxin is the product of a bacterial focus. The limited duration of the individual attacks, and the tendency to recur, are both consonant with what we know of the variations in susceptibility and in resistance in the course of a chronic infection. As pointed out by Osler, the lesions of erythema multiforme may occur on any of the mucous membranes, and occurring on the intestinal mucosa, may give rise to a variety of very confusing symptoms.

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Closely allied to erythema multiforme is erythema nodosum, characterized by firm red painful swellings, usually situated on the legs, lasting a few weeks, and terminating by absorption, sometimes with preliminary softening. The inflammation in these cases is deeper seated than in erythema multiforme. Exactly the same causes are ascribed to this eruption as to erythema multiforme, with the addition of tuberculosis. There is this difference, however, that whereas erythema multiforme is in many cases believed to be of intestinal origin, erythema nodosum is, in the vast majority of cases, due to a bacterial toxin. In both these forms of erythema, petechial hemorrhages occasionally occur, allying these diseases to purpura.

Erythema induratum, characterized by granulomatous masses in the skin and subcutaneous tissue, occurs most often on the calf of the leg and in young girls. The masses develop very slowly, last indefinitely and may disappear by absorption, usually with superficial ulceration. It is generally considered to be tuberculous in nature, but some of the cases are almost certainly due to other organisms, and some are almost if not quite indistinguishable from erythema nodosum.

These three groups, erythema multiforme, erythema nodosum, erythema induratum form a series, having many points in common, particularly the occurrence of bacterial toxemia as the most important etiological factor. It may be difficult in a given case, to decide whether the lesion should be called erythema nodosum or erythema induratum, but the decision is not an important one. The really important thing is to recognize that the eruption is a symptom of toxemia, that the toxemia is probably bacterial, and that the focus of infection must be looked for. It is doubtful if there is any organism of which it can be said: this is the specific parasite of erythema multiforme.

The purpuras are a similar series, varying from petechial spots alone to severe hemorrhages into the skin and through the mucous membranes, with high fever and death. Here again it is important to remember that purpura is a symptom, not a disease. Aside from the cases associated with hemophilia, icterus, leukemia, and other blood defects, it is nearly always a symptom of toxemia, and it may be caused by any one of a large number of organisms.

The diseases so far considered are now

generally classed as toxic. There are others whose etiology is still undetermined, but which tend more and more to fall into the same group. Notable among these is lupus erythematosus, whose etiology has split the dermatological world into two hostile camps—those who believe that it is always tuberculous in origin and those who do not. As is so often the case, careful research is gradually establishing the opinion that neither extreme is justified. Some cases are probably tuberculous, in the sense at least that a focus of tuberculosis elsewhere in the body, by means of toxins which it has poured into the blood stream has so altered the reaction of the skin that it responds in this particular fashion to a local irritation, and the local irritation may in some cases be a tubercle bacillus brought by the blood. Other cases show no sign of tuberculosis, but do show focal infection with other organisms, notably in the teeth and tonsils, while still others, and these are the most serious, seem to be due to a tuberculous infection of the abdominal lymph nodes, combined with a focus of infection with one of the pus producing organisms elsewhere. Some of these latter have been confirmed by autopsy. Lupus erythematosus is a disease of many clinical forms, united by intermediate gradations, and may be caused, apparently, by any one of a number of infections. That it is a toxic eruption is now generally recognized, and many cases respond to the removal of the offending focus.

Alopecia areata is one of the most easily recognized of all skin diseases. The sudden development of areas of absolute baldness, with no disturbance of sensation and no sign of inflammation whatever, cannot be mistaken for anything else. Even without a history, a mistake should rarely be made. During the war, I saw many men who were classed as syphilitic because they had alopecia areata, but I never could discover why the one condition suggested the other; there is really absolutely no connection between the two. I suppose the surgeon, unfamiliar with dermatology, had read that syphilis produces a peculiar type of baldness, and this is certainly a peculiar type of baldness. Therefore, this is syphilis. What could be more logical? And what logic could be more faulty? As a matter of fact, the cause of alopecia areata is unknown. I have seen some cases which improved greatly after treatment of a diseased naso-pharynx, but in others no such infection could be found, and many cases improve with or without treatment. The possibility that this and many other dermatoses may be due to toxemia is fascinating, and opens up a wide field for research. Focal infection suggests at once teeth and tonsils, because these organs can be examined easily, but what do we know of the chronic infections of the bronchial and the mesenteric lymph nodes, and how many cases of chronic cholecystitis go unrecognized? Indeed, the temptation to generalize along these lines is so great, that one must be very chary in doing more than offer suggestions.

The skin is one of the most favorable organs for studying the problems of sensitization, and experience gained here is a standing warning against drawing sweeping generalizations from observations on a few diseases. The variations in local reaction of the skin, caused by sensitization, can be learned only by study of each individual disease. No number of observations on the most varied diseases, will enable one to predict what form sensitization will take in the next disease to be studied; it may resemble one of the forms already studied, or it may not. For instance, a patient infected with syphilis is incapable of developing a chancre—his skin will no longer react in that particular way, and yet the spirochaetae will thrive in a mucous patch, and may be recovered from a blister raised over a syphilitic papule. In the course of a year or two, the reaction of the skin changes still further; the generalized rash has disappeared, and it is difficult or impossible to recover spirochaetae from the skin; but spontaneously, or as a result of trauma, the inflammatory masses appear which we call nodules and gummata. Tuberculosis acts in quite a different fashion. General infection does not protect against reinfection, local inoculation may still produce any one of several types of tuberculosis, notably the ulcerative or the warty. In some old cases of tuberculosis, however, the reaction of the skin to haematogenous infection with tubercle bacilli is strikingly similar to the reaction of the skin of a syphilitic to the lodgement and development of spirochaetae. It is notorious that lupus vulgaris and nodular syphilis may present clinical features so similar as to deceive the every elect, and the same is true of erythema induratum and gumma. In these two diseases, therefore, sensitization produces strikngly different results in the early stages, strikingly similar results in the later.

The cutaneous sensitization occurring in kerion and in other cases of severe and deep ring-worm infection are analagous, and yet different. It is made manifest by a generalized eruption, usually follicular, sometimes vesicular, sometimes erythematous, occurring when the original focus has reached or passed its climax; and this eruption may be induced by the injection of a killed culture of trichophyton into a patient with trichophytosis, but not by an identical injection in a healthy subject. The eruption is transitory, and as it disappears, there is usually great improvement or even cure in the original focus of disease. These three diseases, syphilis, tuberculosis and dermatophytosis, are cited for the light which they throw on some of the problems of general medicine. First, each infection is a law unto itself. The response of the body may be similar, in different infections, and results obtained in the investigation of one may be very suggestive in guiding investigations on another, but the facts for each disease must be ascertained by independent observation and experiment, not by reasoning or by analogy. Second, these three diseases all have this in common, that when a patient is infected with one of them, parts of the body far removed from the active focus react differently, at least as far as that particular infection is concerned, from the same parts in a normal subject. Are there similar changes in reaction in the internal organs, in general disease? May a severe tonsilitis so sensitize the intestinal mucosa that an enteritis is more easily set up than in a normal subject? How will this sensitization vary with different types of invading organism? How will the sensitized tissue respond to physical injury? The answers can be found only by careful observation and experiment.

When we try to correlate disturbances of the endocrine system with diseases of the skin, we meet such a mixture of fact and fancy, of accurately described observations and illogical deductions, that the task of picking out the data which will serve as a foundation on which to build a working hypothesis is almost impossible. The functions of the thyroid are probably as well understood as those of any of the ductless glands, and estimations of basal metabolism give us a fair estimate of its activity, but aside from myxoedema, cretinism and exophthalmic goiter, in its various forms, we know very little about the effects produced by over action, under action, or perverted action. The skin is thick in myxoedema and the hair is thin, but that is not sufficient reason to conclude that all thick skins and bald heads are the result of deficient thyroid secretion, and I know no way of picking out the patients, except the victims of myxoedema and of cretinism, whose skins are likely to be improved by the administration of thyroid extract. A series of basal metabolism experiments in patients with various skin diseases might teach us something, but I am inclined to believe that though the results obtained would be of help in the treatment of the patient on whom the determination was made, they would probably not serve as a basis for any general system of therapeutics.

The changes observed on removal of the gonads have been known for centuries, and similar departures from the normal result from loss of function, whether this be caused by disease or by lack of development. Changes in the distribution of the hair and of fat are the two features which interest the dermatologist, but we have no convincing evidence that the normal distribution can be restored by gland feeding.

The diseases of the pituitary are becoming increasingly important as knowledge about them increases. Giantism and acromegaly are well defined syndromes, and are almost certainly caused by over secretion by the pars anterior. As there is no known antagonist to this secretion, medical treatment is unavailing. A deficiency in this secretion results in a certain type of dwarfing, without necessary mental change, which may usually be recognized. Another disorder of pituitary secretion, Froehlich's syndrome, is easily recognized in its classical type of short stature, obesity, and delayed sexual development—or if occurring after puberty, in sexual atrophy. Children suffering from this syndrome usually have a narrow maxilla and crowded, often irregular, lower teeth, and the lower incisors are often an eighth of an inch or more behind the upper. In my experience, the upper jaw also is often narrowed, producing a highly arched palate. This condition is to be expected, as it is the direct opposite of what is known to occur in acromegaly. It is impossible to connect any definite skin disease with these changes, but I believe that there is a correlation in children between dryness of the skin, or xeroderma, and narrowing of the jaws, and that these patients are improved by pituitary feeding. Xeroderma is often a predisposing cause of dermatitis, and cases of dermatitis, in patients of this type, often do well under pituitary feeding. I have not sufficient data to offer any proof of this opinion, but the lead is, I think, a promising one.

The tumors of the skin are seen both by dermatologists and by surgeons, and though there is a general agreement as to the general principles of treatment, there is a wide divergence of opinion as to details. Let us consider, for example, the pigmented moles. As a rule, the surgeon has his attention called to these tumors only when they have become malignant, and nothing is more malignant than a melanoma: excision, even when extensive, is usually followed by recurrence. As a consequence, some surgeons seem to advocate the removal of every pigmented mole, before it has bcome malignant. If this advice were taken literally, what an orgy of operating would ensue. Those of us who had the privilege of examining recruits in the late war, had no trouble in finding three moles on each man, to serve as identification marks—the only problem was to select those most easily described. If every person has three moles, and there are 120,000,000 people in the United States, what is the percentage of moles that become malignant? It is about as dangerous to leave a mole untreated as it is to cross the street. But all rules have exceptions, and so does this one about leaving moles alone. If, by its size or its location it is subject to irritation, and especially if it shows any response, however slight, to this irritation, it should be removed, preferably by the cold cautery. Senile Keratomata, somewhat similar to some moles in appearance, but of a different nature, can be removed by fulguration, radium or freezing with carbon dioxide snow.

Another point on which the surgeon and the dermatologist are apt to disagree, is on the treatment of cutaneous epithelioma. The opinion of the surgeon, familiar as he is with cancers of the internal organs which occur frequently in late middle life, and which demand early and most radical excision if life is to be spared, is biased by these ideas when he has to consider cancer of the skin. His problem has always been to secure absolute extirpation of the disease at any cost, and in his own field he is justified. But conditions are different in cutaneous malignancy. The tumor, especially if it be of the basal cell type, is relatively slow growing, and usually begins comparatively late in life. In very many cases, therefore, the problem is no longer how to secure absolute extirpation at any cost, but how to give the patient the longest life with the least discomfort. For example, a woman of 83 years came to my office, with a typical epithelioma, beginning to ulcerate, on the right cheek. It had been observed first fourteen years before, and had then been treated with radium. Seven years later it recurred, and was again treated with radium, with good temporary result but it again recurred. All sign of the disease was removed by a third application of radium. It is probable that she will die of something else before the tumor recurrs again, but at the worst, an operation will still be possible if necessary, while at the best, the patient has escaped all disfigurement, and all the danger of a major operation.

This is not a plea for the use of radium in all cases if cutaneous epithelioma: it is a plea for the exercise of most careful judgment in the selection of the mode of treatment to be followed.

And so the list of points of contact might be extended indefinitely, and some of the most important have not been mentioned. The role of the nervous system in the production of lichen simplex, the relation of diabetes to two such diverse dermatoses as xanthoma and furunculus; the effect of circulatory failure on varicose dermatitis—these are but a few of the many conditions that might be discussed. Enough has been said, however, to call attention to the necessity for cooperation between the dermatologist and his brethren in other specialties and in general medicine, if the best service is to be rendered to the patient.

EDITORIAL

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For list of officers of County Medical Societies, See October 1st issue, advertising page xxx.

POST-GRADUATE STUDY

The evidence given at the District Branch meetings has confirmed the opinions of leaders of the Medical Society of the State of New York that one of the great functions of the state organizations is to aid the members of the rural societies in their efforts to learn the modern methods of practice and so bring medical practice to a high level throughout the entire state. Physicians in the larger cities have access to teaching courses and clinics in the hospitals and academies of medicine, and are generous in their offers to aid their medical brethren in less favored districts. Not only are they willing that the major efforts of the State Committee on Medical Education should be made in the country districts, but they are willing to lend their assistance in giving the lectures and courses. Taking courses of lectures to the rural counties is one of the great public health forces of the state and will go far to solve the question of how to give medical service to those who live in sparsely settled parts of the state. Not more rural doctors are needed, but better ones. The courses will not only impart items of instruction, but they will also inspire those who attend them to continue their studies and to attend more extensive courses at every opportunity.

FUNCTIONS OF MEDICAL SOCIETIES

Physicians one hundred years ago were intensely individualistic—and necessarily so. They were isolated in their communities, and the lack of facilities for travel prevented their association with their medical brethren; and when physicians did get together, the lack of scientific standards prevented their joint action in diagnosis and treatment. A doctor's own experience was the principal basis on which he formed his decisions, and he valued his own practical knowledge above that of most of his colleagues.

The physician of one hundred years ago practiced every form of medicine, and was indeed the general practitioner and family physician to whom his people went for every form of advice along lines of health and hygiene. He was also the advisor of the community in matters of public health, and he ranked with the "Squire" and the pastor in honor among his people. He had great civic pride, and was willing to give the community the advantage of his knowledge of health conditions. He performed the duties which doctors now share with departments of health, and lay organizations.

Medical societies took on renewed activity when railroads afforded them the means of travel, and the progress in medical science gave them standards that were far more reliable than their own narrow experiences. These same two items of progress also led the government to establish departments of health whose officers were expected to give the community that medical advice which the older doctors had given freely; and the doctors welcomed the opportunity to rid themselves of their responsibility for public health.

Philanthropists observed the inability of the poor to avail themselves of medical service, and the growing unwillingness of the physicians to give their advice for nothing; and so they formed lay health organizations in order to bring doctors and poor patients together. From this it was but a step to propose to that the state provide medical advice not only to the poor, but even to all classes of people.

Lay organizations and health departments had much in common, for they were both attempting to do the civic work which the older doctors performed each in his own community. Both the departments of health and the lay organizations did much to irritate the physicians who, on the other hand, often seemed exasperatingly conservative to the public health practitioners. Until about ten years ago it almost seemed that two classes of physicians would be established. But this calamity was happily averted by the decision of the members of medical societies that they would discharge their civic duties and give medical advice and service along all lines of public health. At present the majority of family physicians are practicing civic medicine to some extent as is shown by their willingness to examine children at clinics and to go before official boards in order to advocate a public health project.

The broad object of a medical society is to promote the practice of medicine along all lines, private and public, individual and civic. A medical society has duties toward its own members and toward the people.

To its members the medical society owes protection and inspiration, and above all, instruction. The county medical society is the post graduate school of medicine for the majority of physicians, and the Medical Society of the State of New York is lending its efficient assistance through the committee on Public Health and Medical Education.

To the public the medical societies are giving the service which was formerly given by the village doctor. When a dozen physicians practice medicine in a village, no one feels a personal compulsion to practice public health and civic medicine, although his conscience tells him that the "Medical profession" to which he belongs must discharge that function. The county medical society, through its committees, and especially their chairmen, practices public health and civic medicine. Moreover, the system provides that someone—the chairman of a committee—shall be charged with the personal responsibility to speak and act for the medical profession.

The county medical societies are finding the field of public health practice preempted by departments of health and lay organizations, and friction has sometimes developed when the county medical societies have also entered the field. But the leaders of all the three groups are rapidly developing agreements regarding the peculiar fields of work which belong to each.

The sense of civic consciousness which the older practitioners of medicine had in a high degree has undergone a rebirth in the county medical society, and is already a lusty infant of whom its medical parents may well be proud.

PERVERTED POINTS OF VIEW

It is difficult to follow the arguments of some editors who knock the doctors in every issue of their publications, but some light is thrown upon their mental processes by a study of their knowledge of the basic sciences on which the practice of medicine is founded. Many of the antagonistic editors are logical in thought and skilled in dialectics, but they start with entirely wrong premises, and assume conditions which are untrue. The falsity of the underlying science of these editors is clearly revealed by the following quotations from one who claims to be a leader in health education.

"Doctors are human. Furthermore they become involved in a system and have to stay in it."

"The fundamental principles of allopathy are unscientific and not in accordance with natural law. In the Standard Dictionary allopathy is defined as 'The system of remedial treatment in which it is sought to cure a disease by producing a condition incompatible with the disease.'"

"When unnatural stimulants are used and the blood itself is tampered with hypodermically, the value of such remedies is questionable."

"The processes used by the physical organism in effecting a cure of any complaint are beyond detailed analysis. No physician, regardless of how learned he may be, can tell you much or anything of the physiological laboratory in which the body works out the problem of reclamation."

"We object to medical doctoring when natural drugless methods can more quickly and more safely effect the cure. We emphatically object to methods now in general vogue of tainting the blood stream with a view to making one immune to disease. The body has within itself power to make itself immune to practically every disesae if the vitality is raised to its highest possible obtainable degree."

"Most doctors will tell you that if they adhered closely to the methods that were given to them in detail as students, their patients would suffer in consequence."

"At present doctors profit by sickness. When their business is bad, people are too healthy."

"The commercial side of the doctoring business often begins to work higher up. The men who pull the wires to scare the people into being vaccinated, and adopt other medical measures through fake epidemics, they are the real criminals. They are traitors. Health and life mean but little to them."

"It is criminals of this sort that this publication is arrayed against to the very last degree."

These quotations express the creeds of most cultists and health faddists, expressed by an editor who is an expert advertising writer. They are reproduced in this column simply to inform physicians of the beliefs which impel their patients to refuse themselves of some of the most striking methods of scientific medicine, and to delay seeking a diagnosis and treatment until the curable stage has passed.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Fitness for Driving Automobiles.—Twenty years ago there were apparently few legal restrictions imposed on the drivers of either locomotives or automobiles. Accidents to paretic drivers were frequent and examinations for the licenses of drivers were seriously considered. Concerning the drivers of automobiles this Journal for October 1907 says editorially:

"The automobile rushes through the streets and country in the hands of any one who lays himself to the task. The number of accidents is appalling. The driver may be half blind, deaf, or paretic—there is no restriction. The large number of fatalities are all in the day's work, so long as we do not know the parties involved; but still we may be the next victims, and then it becomes a different matter. No person should be permitted to run an automobile faster than four miles an hour within the town limits who has not been subjected to a physical examination and determined physically fit and free from disease which does or might suddenly incapacitate him. A medical examination should be necessary for a license, and the license should be good for one year. This need not be burdensome or expensive, and it would surely be for the public good. Our antipaternalist might object to such an ordinance, but after he is run into by a cross-eyed paretic he will be convinced, if he survive."

The people of New York State have taken precautions regarding the fitness of locomotive engineers, but they are still groping for efficient means to control the drivers of automobiles.

MEDICAL PROGRESS

Simple Uncomplicated Rotary Dislocation of the Atlas.—R. H. Jackson emphasizes the fact that this form of dislocation of the atlas occurs more commonly than is supposed and may be overlooked. If the lesion is not reduced, sudden death may occur from an increase in the dislocation or the development of myelitis months or years after the injury. The anatomical points to be kept in mind are that the transverse process and lateral mass of the atlas on the side of the dislocation are displaced forward, while on the opposite side these structures slip somewhat backward, thus making relatively prominent that portion of the axis which lies immediately below. These two points may be ascertained by a digital pharyngeal examination when it is possible to insert the examining finger. In rotary dislocation the transverse process may be plainly felt on the side from which the head is turned. On the opposite side the fingers are said to sink in deeply and forward, but Jackson was not able to verify this in all his cases. The spine of the axis is deviated to the side from which the head is bent. The true nature of the lesion can often be demonstrated roentgenologically. It was impossible, however, in the four cases reported by the author, to open the jaws sufficiently wide to permit a satisfactory anteroposterior view. Reduction should be delayed at least three or four weeks, and in the meantime constant extension should be applied. In three of Jackson's cases in which the usual method of reduction (the administration of general anesthesia and gentle traction on the head with rotation) failed, Binnie's method was used with success. This method consists in thrusting the patient's head through an opening in a laparotomy sheet, reducing the size of the opening by sutures of strong cord so that it fits snugly around the base of the occiput, and then exerting traction on the sheet. This is done by two attendants, standing on operating tables on either side of the patient, while counter extension is exerted by other attendants bearing down on the patient's shoulders. If closed reduction cannot be effected, open operation should be performed, as was done in a case reported by Osgood, and also in a case operated upon successfully by James A. Jackson. The procedure consisted in exposing the forwardly displaced posterior arch of the atlas through a four-inch incision in the median line of the neck, and passing an aneurysm needle carrying a stout braided silk around the arch, between it and the spinal cord. Then, while forward pressure on the anterior arch was exerted through the pharynx, traction was made on the posterior arch. Reduction was maintained by tying the silk band about the hooked spinous process of the atlas.—*Surgery, Gynecology and Obstetrics,* August, 1927, vol. xlv, p. 2.

Ethylene as an Anesthetic for General Surgery.—As a result of their experience with ethylene in 11,607 cases, in 70 per cent of which this anesthetic was used alone, Hugh Cabot and Henry K. Ransom conclude that ethylene has all the advantages of nitrous oxide and oxygen. It gives greater relaxation than nitrous oxide and avoids objectionable cyanosis. It appears to be remarkably free from danger except possibly that resulting from explosion; it is absolutely necessary to avoid naked flame or sparks in or near the operating room. It will not give complete muscular relaxation, particularly for operations in the upper abdomen, and if this is required, it must be combined with local or regional anesthesia or another anesthetic selected. With the use of ethylene there is an initial rise in blood pressure on the average to 17 per cent. This rise occurs promptly and falls rapidly. This has some bearing on the value of the anesthetic in the presence of shock, and the substance may be accepted as preferable to ether or chloroform under these conditions. Investigations have shown that ethylene has a less deleterious effect on kidney function than ether. The authors have no record of the occurrence of postoperative pneumonia in any case in which ethylene alone was employed. In their practice it has practically pushed nitrous oxide from the field and will, they believe, supersede it for ordinary surgical operations. As ethylene can be employed only where trained anesthetists are available, it is not likely that it will displace ether or chloroform for use outside of hospitals, but for general hospital practice it has outstanding advantages. —*Annals of Surgery,* August, 1927, vol. lxxxvi, p. 2.

Traumatic Rupture of the Normal Spleen.—Hamilton Bailey (*British Journal of Surgery,* July, 1927, vol. xv, p. 57) presents an analysis of 32 cases of traumatic rupture of the spleen, three of which were under his own observation. He casts doubt on the prevailing opinion that ruptured spleen is of common occurrence in malarial countries, while he finds that it is frequent where industry prevails. Cases conveniently divide themselves into four groups: (1) The patient rapidly succumbs, never recovering from the initial shock; (2) initial shock, recovery from shock, signs of ruptured spleen; (3) the signs of an intra-abdominal catastrophe are delayed; (4) spontaneous recovery. More than three-fourths of the cases belong to the second group. As the general signs of ruptured spleen are unreliable, the local signs become important. Abdominal rigidity is present in more than one-half of the total cases and is often most prominent over the lower left abdomen; local tenderness is very common; shifting dulness in the flanks is probably regularly present. The Ballance sign is so rarely present that it is valueless. Abdominal distention begins to appear three or four hours after the accident. Kehr's sign (referred pain in the the left shoulder) is occasionally very much in evidence. In the delayed case, "friable pedicle" seems to be the peculiar terror, and particular care should be exercised to avoid this calamity by making a series of small individual ligatures, applied by transfixion with a sewing needle close to the spleen. If the pedicle cuts through, it may be possible to retrieve it by the Mayo method of dealing with the slipped renal pedicle. Spontaneous recovery is so rare that it may be assumed that splenectomy is always indicated. For this the midline incision is usually adequate. If time permits it is advisable to examine the tail of the pancreas, and if this is damaged many complications may be minimized by a tube brought out on the left flank. While blood transfusion as soon as the pedicle is ligated is the ideal procedure, subcutaneous saline infusion is a good substitute; it should be started at the beginning of the operation, and continued after the conclusion of the operation, if deemed necessary. The early complications are peritoneal effusion, "burst abdomen," left pleural effusion, persistent hiccup, and splenic asthenia. The late complications are attacks of palpitation when lying on the left side, fleeting bone pains, and attacks of vomiting. The majority of patients who have been traced report that they are in good health. In no instance is there the slightest indication that a splenectomized person is more susceptible to infection than the rest of humanity.

Chronic Pancreatitis.—In describing the treatment of chronic pancreatitis, H. E. Griffiths (*Lancet,* July 23, 1927, vol. ccxiii, p. 5421) points out that this affection always appears to be secondary to some other chronic inflammatory process in the abdomen. This is usually a disease of the gall-bladder, sometimes of the pylorus, and occasionally the cause seems to be in the appendix. The primary focus must first be removed, and then the diseased pancreas must be coaxed back to health by strict attention to diet, by drainage and drugs. The diet must be chosen with the main object of relieving the strain on pancreatic digestion and limiting the amount of intestinal decomposition. Crisp carbohydrate foods, eaten cold, are particularly recommended; such are bread, cut thin and toasted, and breakfast foods having a maize base. The amount of fats should be reduced to a minimum and all fat should be excluded from protein meals. Meat may be taken sparingly once a day; eggs should be avoided. Fruit and green vegetables may be eaten sparingly. Milk, tea, beer, stout, and sparkling wines are forbidden. Drainage is obtained by the use of the duodenal tube or by operation. Griffiths employs the Lyon method and finds that peptone is often more active than magnesium sulphate in stimulating the flow of pancreatic juice. Drainage by operation should be done at the time of the primary operation for dealing with the focus from which the chronic pancreatitis arises. In the majority of cases the operation is for cholecystitis complicated by gallstones. If chronic pancreatitis is present, as it usually is in cases of long standing, drainage of the biliary passages is imperative. The failure to relieve digestive symptoms by cholecystectomy is generally due—and this is important—to the overlooking of pancreatitis and the failure to provide and maintain adequate drainage. Where there is any possibility of the ampulla of Vater or the terminal part of the common bile duct becoming occluded by the pressure of a sclerosing pancreatitis or other cause, the gall-bladder must be preserved, as it may ultimately be necessary to resort to cholecystoduodenostomy. Drainage must be maintained for several weeks. Where pain is a prominent feature of chronic pancreatitis, relief may be obtained by incising the peritoneum on the antero-superior surface of the pancreas. Drug treatment has for its object disinfection of the pancreatic ducts and control of intestinal putrefaction. Sodium salicylate and aspirin are the most valuable pancreatic disinfectants. Victor Schektor recommends the following: the juice of four lemons, 20 grains of sodium salicylate and 30 grains of sodium bicarbonate, to which, when effervescence has ceased, is added one bottle of Vichy water. This quantity should be consumed in the course of 24 hours. Two drugs of particular merit for the control of intestinal putrefaction are oil of cloves and calomel in small doses.

Sepsis from Pfeiffer's Bacillus.—A. Lechner and A. Boetzel write briefly on this subject in the *Muenchener medizinische Wochenschrift,* July 15, 1927. The role of this particular microorganism in the production of this blood state is a very modest one. In the great influenza pandemics sepsis from this cause has hardly been seen and the case reported by the authors cannot be classed clinically as influenza. The bacillus appears at times to figure in a rare symbiosis with *Streptococcus viridans* which the authors discuss at length. In the case described no viridans streptococci seem to have been present and the disease was masked as typhoid fever. The patient was a strong woman of 42, admitted under suspicion of typhoid but the agglutination tests were negative for both typhoid and paratyphoid.

No local symptoms appeared for the first ten days aside from the fever which was of a remittent type, but then some cardiac murmurs were heard. The first blood cultures failed, but finally Pfeiffer's bacilli were cultivated. After the third hospital week cerebral symptoms appeared — hemiplegia followed by meningism. Death followed after a total illness of 8 weeks (2 weeks of fever before hospitalization). Autopsy showed a valvular verrucous endocarditis with infarcts of the kidneys, perisplenitis, and other evidences of sepsis. Despite the negative Widal the authors up to the time of the positive blood test were almost certain that they were dealing with a case of typhoid fever. The lungs were intact save for terminal edema. However, at the close the syndrome was seen to be that of endocarditis lenta even without the autopsy finds (progressive anemia, petechiæ, focal nephritis, etc.). Without discussing the cause of influenza it is manifest at once that the picture here has nothing in common with the fatal cases of that infection.

Human Infection with Bang's Bacillus.—Professor E. Kreuter, a surgeon in the City Hospital of Nuremberg, refers to the fact that human infection with Bang's bacillus, the cause of infectious or pestilential abortion in cattle, is rare. Before the cases were reported, human infection was unknown in Europe, although a few cases had been reported in America. Bang first published his account of the exciting cause of the disease in cattle in 1896. Of the greatest interest is the close resemblance between the Bang infection in mankind and Malta fever, the cause of which is the *Micrococcus melitensis*, discovered by Bruce in 1887; this microorganism is known to infect goats, being often present in raw goats' milk. The two organisms closely resemble each other, as first pointed out by Alice E. Evans in 1918, but although the resemblance is closer than that between typhoid and paratyphoid bacilli, no assertion of identity or mutation has been put forward. The author now reports a case seen by him in a veterinary surgeon who had been treating a cow who had suffered a febrile abortion. There was a long incubation period before an influenza-like attack set in which was very mild and without loss of appetite or weight. But in the second week of the affection the symptoms became aggravated, and the disease was a puzzle until a parallel case in another exposed veterinary practitioner pointed to an animal origin, agglutination tests revealing the Bang bacillus in the serum. The first attack lasted three weeks and after an interval of complete health a second attack developed and two other recurrences duly followed, one complicated with orchido-epididymitis. The only other complication mentioned seems to have been a mild nephrosis. Blood cultures proved negative throughout, the diagnosis depending on the positive agglutination test. — *Klinische Wochenschrift*, July 16, 1927.

Etiology of Annexitis.—E. Gross of Leipzig quotes from an old author (1870) to the effect that about 3 out of 4 of these cases develop either post partum or post abortum. At that period nothing was known of the role of the gonococcus in this pathology. After bacteriology was under good headway attempts were made to base a classification on the organisms found in the pus; but unfortunately a majority of all cases showed pus which was sterile. As something like 20 per cent. showed gonococci it was assumed that the sterile cases had originally had the same origin and no less than 80 per cent. of annexitis was set down as of venereal origin. Better technique reduced the sterile percentage to about 15, while but 21 per cent was charged up to gonococci, including proved and probable cases. Apparently nearly half of all cases were brought into some relationship with anaerobic organisms of the type found in ordinary wound infections. The status of the entire subject being far from satisfactory, some fresh investigations have been instituted at the Sellheim clinic. Certain cases were eliminated outright as those associated with infected myoma and cancer of the uterus, appendicitis, tuberculosis, etc. The percentage of gonorrheal infection, proved and probable, was twenty-three. Puerperal non-gonorrheal cases made up 58 per cent. In regard to the role of anaerobic organisms the figure was given as 74 per cent. In this research both the organisms present and the clinical histories were duly honored and an attempt was made to harmonize the entire material from 1890 to 1905 by synchronizing the incidence of these cases with the general incidence of abortion, febrile abortion, puerperal fever, gonorrhea, etc., as shown by graphs. Annexal disease is a notable factor in the causation of puerperal infection, so that vicious circles must be thought of. Febrile abortion leads to death in about 9 per cent, while 21 per cent more develop annexal disease. The role of gonorrhea has greatly declined in importance.—*Münchener medizinische Wochenschrift*, August 5, 1927.

Postinfectious Cerebral Complications in Children.—Dr. C. Böhnheim of Berlin has been at work on this subject for the past three years, using the material of the Children's Hospital. Since a report made in 1925 he has assembled eight personal observations in which, in the course of the familiar contagious diseases of childhood, mild or severe cerebral symptoms developed. It was at first thought that these complications were almost peculiar to varicella, vaccinia, and variola, but extended observation has shown that this is far from being true. The first four of the eight cases were examples of measles and the cerebral manifestations were mild and followed by complete recovery. These four cases were a continuation of an earlier series of 11, reported in 1925. One of the four little patients presented a picture of encephalitis, but in this case there was a double mastoiditis as well. The fifth patient had scarlet fever and the cerebral symptoms were mild and recovery was complete. The sixth and seventh of the series had whooping cough and both children presented encephalic symptoms, although fortunately both made complete recoveries. In cases reported by others whooping cough was followed by blindness, idiocy, etc. Finally the eighth patient had chickenpox and developed the picture of lethargic encephalitis although with complete recovery. In none of this series were there any meningeal symptoms. No case has been seen by the author to follow mumps, although other pediatrists have recorded such. In a ninth case, not included in the preceding series, it was first thought that a vaccination meningo-encephalitis had occurred, but autopsy showed the case to have been one of tuberculous meningitis. The symptoms appeared on the fifth day after a primary vaccination in a child aged 3½ years, which is far too short an interval to conform to the average of post-vaccinal cerebral symptoms. It is of course possible that the reaction to vaccine activated tubercle bacilli, but such a sequence is almost unique.—*Klinische Wochenschrift*, August 13, 1927.

Possible Identity of the Spirochetes and Fusiform Bacilli of Vincent's Angina.—Professor G. Sanarelli of Rome discusses this possibility exhaustively. It is difficult to visualize how and why two quite different types of nosoparasite should invariably be in constant pathogenic association. The author has attacked the problem indirectly through the study of the cecal spirochete which can be seen in certain culture media to become transformed into fusiform bodies which are indistinguishable from fusiform bacilli. The spirochete of Vincent's disease may not be a true spirochete. The germs may be two separate forms of a microorganism thus far unknown. The author assumes that such exists and terms it *Heliconema vincenti*. It is of course possible to make pure cultures of each kind, but study of such cultures shows an identity of behavior. In vitro the author has shown how the presence of the *Bacillus mesentericus vulgatus* is sufficient to transform the spiral into the fusiform shape of the heliconema. The symbiosis of a protozoon with a bacterium such as is supposed to underlie Vincent's disease has always seemed far fetched, but to which group does the heliconema belong? Possibly to a separate order. In some respects it resembles the fungi, which naturally are vegetable. It is able to attack the throat and produce ulceromembranous lesions like certain forms of bacteria. Spindle forms have been seen of the most dissimilar microorganisms which cannot be grouped by form alone. It is evident that a vast amount of work will have to be done before this matter is straightened out, so that for the present the author's unicistic conception will constitute a sort of working hypothesis to be sustained or antagonized.—*Annales de l'Institut Pasteur*, July, 1927.

Extramedullary Hematopoiesis in Anemias.—In connection with the study of a unique case of large tumor-like growths of hematopoietic tissue in an anemic infant with splenomegaly and an enlarged liver, associated with rickets and malnutrition, and a contrasting case of extramedullary blood formation in an anemic adult, Dorsey Brannan presents certain interesting observations on blood formation in infants. He points out that extramedullary hematopoiesis is a fairly common finding in certain anemias of infancy and childhood, and large tumor-like growths of hematopoietic tissue may occur particularly in the hiluses of the kidneys and, in his case, were found in the falx cerebri, thymus, and lymph nodes. From the findings in the broad ligaments, breasts, and elsewhere, it would seem possible for similar masses to arise in these locations also. Microscopically, the masses were composed of all the blood-forming cells except the large mononuclear, transitional or endothelial cells. In non-anemic infants apparently normal blood formation has been observed in the broad ligaments, breasts, prostate gland, kidneys, epididymis, palms, and soles. These structures should always be examined in anemic infants, especially in cases showing evidence of myeloid changes elsewhere. The special sites of predilection in adults for extramedullary blood production have been very much the same as in the young. The liver and spleen were especially important organs, while in the lymph nodes and kidneys the changes were less common. In the author's second case myeloid activity occurred in the broad ligaments and parametria and in organizing thrombi of the broad ligament. The bone marrow both in the young and in the adults presented a variable appearance. Where an active marrow was found, it seems logical to assume that the marrow was unable to keep pace with the blood destruction, and because of insufficient blood production, there had resulted reversion to the fetal type of blood formation. Hence extramedullary blood production may be regarded as a compensatory reaction. In the broad ligaments of the adult and infants, Brannan found isolated foci of erythropoiesis and leucopoiesis clearly defined. He concludes that in extramedullary hematopoiesis, either erythropoiesis or leucopoiesis, the process appears to start in foci of type cells, which substantiates previous observations regarding blood formation in the bone marrow—*Bulletin of the Johns Hopkins Hospital*, August, 1927, xli, 2.

LEGAL

By LLOYD PAUL STRYKER, Esq.
Counsel, Medical Society of the State of New York

EARLY HISTORY OF THE NEW YORK STATE MEDICAL SOCIETY

As early as 1749 the doctors of New York City had associated themselves in a medical society, and there is a record of a paper that was read before this body in that year entitled "An Essay on the Nature of Ye Malignant Pleurisy that Proved so Remarkably Fatal to the Inhabitants of Huntington, L.I., and some other places on Long Island, in the winter of the year 1749." This society appears to have continued in existence and to have held regular meetings down to the year 1794, when on November 14th the first organization to bear the name of the "Medical Society of the State of New York" was organized.

The minutes of the first meeting of that organization record that "A number of medical gentlemen, wishing to associate for the purpose of promoting friendly professional intercourse, determined to meet at the City Hall on the evening of November 14, 1794, where there appeared Drs. John Charlton, Thos. Jones, Samuel Bard, Malachi Treat, Richard Bayley, Louis Faugeres, James Tillary, Samuel Nicoll, Ab. Bainbridge, David Brooks, Wm. P. Smith, John Gamage, Wm. Hammersley, John Onderdonk, George Anthon, J. R. B. Rodgers, Wm. Post, Wm. Lawrence. Dr. Charlton was appointed chairman." It was resolved at this meeting that the medical society that had theretofore existed should be dissolved, and that the doctors present should form themselves into a new society "by the name and style of the Medical Society of the State of New York, and that they will use the seal of the same."

This society appears to have taken a prominent part in the medical life of the growing city, and to have interested itself at an early date in public health questions, especially those which pertained to the ravages of epidemic diseases. In 1795 we find the Governor of New York State appealing to this organization to cooperate in the suppression of an epidemic prevailing in the upper part of the city as a result of which commercial relations between New York and Philadelphia temporarily had ceased. A committee was appointed to arouse the Mayor, aldermen and commonalty of the City of New York to the danger of epidemics and to the need of providing methods for their prevention.

In the same year we find this society writing to the Mayor calling his attention to the causes of the late epidemic. "The accumulation of filth in the streets," it wrote, "this being composed chiefly of dead animal and vegetable substances, is when exposed to a hot sun, a source of noxious effluvia, which has a tendency to produce the most fatal effects. That such effluvia has been the cause of fever has been confirmed by repeated observation and experience in all parts of the world." They also spoke of "Obstructed water drains, by occasioning stagnant water, and collecting matter of various kinds which, undergoing decomposition, emit air of qualities extremely prejudicial to health.

The records of this society are of surprising interest to the student of public health. They reveal that more than a century and a quarter ago the New York physicians were concerning themselves with the problem of safeguarding the health of the people.

These records also reveal at what an early date the problem of medical licensure was considered. Thus, at a meeting held on January 14th, 1800, the society took notice of the fact that its members had frequently been applied to for the purpose of recommending assistant surgeons in the army and in the navy, and a resolution was adopted that "the members of this Society will not recommend any person as qualified to act in the aforesaid capacity, unless he shall have received a medical diploma from some college or university, or produce a certificate of his having been regularly examined by three of the members of this Society."

The problem of medical licensure in its general application was considered at a meeting of the society held on July 12th, 1803, when it was "Resolved, that a committee of five members be appointed to take into consideration the propriety for applying to the Legislature of this State for a law, regulating the practice of Physic and Surgery, or a law of incorporation, and report at the next meeting." Nothing seems, however, to have come of this resolution, but a statute carrying its purposes into effect, as we shall presently see, was enacted three years later.

Contrary to an impression which frequently has prevailed, however, the present New York

State Medical Society was not the outgrowth of the first society using that title. The doctors who in 1794 had organized themselves under that name, were all residents of New York City. The origin of our present State Society is traced to the County of Saratoga.

In the latter years of the eighteenth century, the immigrants who migrated "West," that is, into the upper and western regions of New York State, became an easy prey for charlatans. Imposters who had never read a volume of medicine preyed upon the credulity of these people, and not only obtained an extensive practice, but a reputation also as great healers. "Consultations," said an early record, "were generally distinguished for gross controversies at the bedside of the patient, whose health and life were often immolated to the ignorance, prejudices or discordant theories of the contending physicians. Their skill was generally graduated by their ability to magnify the cures they had made." As early as 1796 the ignorance of those posing as physicians became the subject of general concern in Saratoga County, and in that year the newspapers of that region were calling attention to the need of instituting medical societies for the prevention of these evils. One such society was organized, but its dissolution followed shortly.

Finally, on November 7th, 1805, a meeting of the physicians of the County of Saratoga was convened at the Courthouse in Ballston "for the purpose of devising means to improve the practice of medicine." A committee of correspondence was appointed to communicate with the physicians of Washington and Montgomery Counties. The letter addressed to them recommended to their "earnest attention the necessity of adopting some vigorous measures for the suppression of empiricism, and the encouragement of regular practitioners. The evil calls loudly for the united efforts of all who sincerely wish to remove from that valuable science the imputation of quackery; under which from the ignorance of some of its professors, it not unjustly labors. The wish of the meeting is to procure from the Legislature of the State their sanction to a medical society, and we request your attendance at the courthouse in Ballston on the 16th of January, 1806, at ten o'clock A.M., either in person or by a committee of your county, for the purpose of adopting the best means for obtaining an act of incorporation."

In conformity with this notice, a delegation of the three Counties of Saratoga, Washington and Montgomery convened at Ballston, on January 16th, 1806, and a memorial was declared to the Legislature for an act of incorporation of the New York State Medical Society, and on April 4th of that year, an act was duly passed effecting the incorporation. The recital of the bill declared that "Whereas, well regulated medical societies have been formed to contribute to the diffusion of true science, and particularly the knowledge of the healing art;" therefore, the act of incorporation was granted.

The medical societies of the various counties were duly recognized, and express power was given each of them "to examine all students who shall and may present themselves for that purpose, and to give diplomas under the hand of the president and seal of such society before whom such student shall be examined, which diploma shall be sufficient to enable the person so obtaining the same to practice physic or surgery, or both, as shall be set forth in the said diploma, in any part of this state." Each county society was authorized to appoint not less than three nor more than five censors, "whose duty it shall be carefully and impartially to examine all students who shall present themselves for that purpose, and report their opinion in writing to the president of the said society." It was also provided that any student whose qaulifications were deemed insufficient by a county society and who thought "himself aggrieved by the decision of such society," could in the nature of an appeal, secure an examination from the state society which, if it deemed the applicant sufficiently qualified, might grant him a license to practice.

No penalty was provided for the unlawful practice of medicine, except that a person not licensed was "disqualified from collecting any debt or debts incurred by such practice in all courts of this state."

In order to insure that only those of requisite education should be eligible for examination, the act expressly declared that an applicant for examination must first produce "satisfactory testimony that he has regularly studied physic or surgery or both, as the case may be, with one or more reputable practitioner or practitioners for the term of three years."

Although the meeting of the physicians from the three counties held at Ballston had not contemplated a law of state-wide application, the committee appointed by that meeting assumed (fortunately, as it turned out) the responsibility of petitioning for and securing a statute embracing the entire state. It is not surprising, however, that the New York County Society which, as we have seen, since 1794 had been known as the New York State Medical Society, looked with some misgiving at the law which had appropriated their name for a state-wide organization; but at an adjourned special meeting, after much deliberation, the New York City organization acquiesced in the new statute, and our present State

Society was launched upon its notable and honorable career.

Thus, during the administration of President Thomas Jefferson, from the determination of far-seeing medical men to rid their profession of quackery, to provide for proper medical licensure and to effect a cohesive state-wide organization, our present State Society was born. It was founded "to contribute to the diffusion of true science, and particularly the knowledge of the healing art." Greater even than the founders dreamed was the contribution that has come from the society which was thus brought into being.

FOREIGN BODY IN HAND

The patient charged that he had called upon a physician for the purpose of having a piece of lead removed from the palm of his hand which had become lodged therein while he was engaged at his work; that the defendant physician negligently and carelessly cut and operated upon the hand, and advised the patient that the foreign body had been removed; that shortly after leaving the physician, the patient's hand began to swell, and that he was compelled to engage the services of another physician who operated upon his hand and removed the piece of lead therefrom. He claimed that by reason of the defendant's negligence, he was required to expend money for other physicians, and was prevented from following his employment.

One evening while the defendant was attending a patient at a hospital, the plaintiff came to the clinic of the hospital, the clinic at that time being closed, and stated to the superintendent that he had a sore hand and wanted medical attention. The superintendent of the hospital asked the defendant physician if he would attend to the plaintiff. The defendant then took the patient to the operating room. The patient stated to the defendant that the point of a pencil had broken, and he believed that the same was lodged in his hand.

The physician, upon examination of the palm of the hand, found a puncture about an inch from the ulna and about the middle of the palm. The skin around the puncture was red, but there was no discoloration. The physician manipulated the hand, but could feel nothing. The physician also probed the wound, but could not feel anything upon probing.

Then under a local anæsthesia of ethyl chloride, an incision was made, and the physician probed the wound, but could find no foreign body. Upon completion of this last probing, the physician advised the patient that nothing further could be done for him at that time. He then washed the wound with a lysol solution, and applied iodine and sterile dressings. He further advised the patient that unless the hand became painful or swollen, to call the following day.

The patient being out of work, stated that he was unable to pay for the services rendered which were given gratis. The doctor also advised the nurse that if the patient returned to the hospital and if the hand did not at that time appear healed, that an X-ray should be taken. The defendant physician heard nothing further from the patient until this suit was instituted against him.

When the matter came on for trial, a judgment was rendered in favor of the defendant.

RINGWORM—IMPROPER PRESCRIBING OF AMMONIATED MERCURY

A physician was house surgeon at a hotel and a person employed at the hotel as a manicurist had at various times been gratuitously treated by this physician. About a year after this person had been discharged from the hotel, she called upon the physician at his office. An examination at that time showed that she had three spots on her chin and face of roughened skin which gave the appearance of ringworm. They were circumscribed areas, each about the size of a ten-cent piece. The patient stated that she had previously had medical treatment for the condition, but that the same did not help her, and also that she had used tincture of iodine.

The physician diagnosed the condition as ringworm, and applied tincture of iodine, by means of a cotton swab, left the iodine on for about three or four minutes, and then applied alcohol, and then a little talcum powder. He also prescribed ointment of ammoniated mercury, and instructed the patient to apply it at night.

Later in the same day, the physician received a telephone call from the patient stating that she was burned, and asked the physician to call on her at her place of residence. Upon arrival, the physician found the patient crying and hysterical. An examination disclosed a first degree burn on her shoulders and neck half-way down to scapula on both sides, under her chin in the front down to the clavicle. An examination of the ammoniated mercury disclosed that she had used about a half teaspoonful which could not cause the burn of which she complained. The patient made no statement to the physician as to how the burn occurred.

Over the burned area the physician applied carron oil, ungentine and bicarbonate of soda. The physician remained with the patient for about an hour, and because of her hysterical condition gave her a hypodermic of morphine.

Upon the following day when he called, the patient was not at home, and several subsequent attempts to communicate with her by telephone were unsuccessful. He heard nothing further of this patient until a malpractice action was instituted against him.

In this action it was charged that the defendant, as a physician, had been engaged to attend and treat the plaintiff for an illness from which she suffered, but that he was negligent and careless in his treatment and his prescribing for her; that the remedy he prescribed aggravated her malady, and caused unnecessary soreness about the neck, throat and chest. It was charged that it was improper for the plaintiff's condition for the defendant to have prescribed the ointment of ammoniated mercury; that it was likewise improper to have applied iodine, and that by reason of the defendant's negligence, the plaintiff claimed to have been damaged.

This action, following the course of many similar ones, not being pressed for trial, a motion was made to dismiss it for failure to prosecute, which motion was granted, terminating the action in the defendant's favor.

TONSILLECTOMY—REMOVAL OF THE UVULA

In this action it was charged that the defendant was engaged by the plaintiff, and after examination he advised the plaintiff that it was necessary that the plaintiff's tonsils be removed. It was further charged that during the course of the operation and through the negligence of the defendant, the plaintiff's palate was removed and that by reason of the removal of the palate the plaintiff has suffered great physical and mental pain, caused great discomfort in eating and drinking and that his sense of taste and power of voice have been greatly injured, that he has constant throat pains and paralysis of the throat; that he was otherwise damaged and seeks by this action to be compensated by the defendant for his injuries.

This patient had come under the care of the defendant physician and upon examination it was found that his tonsils were infected. They were treated for a period of about a month and a half and at several times during this period the defendant physician pressed pus out of the tonsils and applied tincture of iodine in the tonsil pits. Towards the end of the period of treatment, the physician advised the removal of the tonsils and under a general anaesthesia performed a tonsillectomy. He stated that he dissected the tonsils and with a Mosler snare completely removed both tonsils, and that he was positive that he did not injure or cut the palate during the performance of the tonsillectomy. There was no unusual bleeding and the patient came out of the anaesthesia in a short time. He left the hospital in a day or two after the operation. The defendant again saw the patient about five days after the operation and again a month after the operation, at which last time he found the throat healed and did not recall anything unusual about the patient's palate. His bill for the treatment and operation remained unpaid.

In a physical examination made of the plaintiff about two and a half years after the operation, it was found that no palate or uvula was present. The examining physician was of the opinion that the amputation of the uvula caused no discomfort or difficulty whatever, that its loss was a minor quality. He found, however, that the soft palate had not been injured, that it was full and rounded and did not show any scars where the uvula had been amputated from it. From the test made by the examining physician, he did not feel that the patient's voice had been affected by the removal of the uvula.

For a while the plaintiff and his attorney were vigorous in their prosecution of the action. Finally, when it was about to be reached for trial, they being unsuccessful in procuring a settlement, the action was discontinued.

NEWS NOTES

THE SIXTH DISTRICT BRANCH

The twenty-first round of annual meetings of the District Branches of the Medical Society of the State of New York was begun by the Sixth District Branch, which held its sessions on Tuesday, September 27, 1927, in Johnson City, N. Y., with the President, Dr. Wilber G. Fish, of Ithaca, presiding, and the Secretary, Dr. Hubert B. Marvin, of Binghamton, recording.

The attendance was over 100, out of a membership of about 450 in the ten county societies that compose the District Branch. The Sixth is noted for the large proportion of its members who attend the meetings.

The meetings were held in the George F. Johnson Pavilion, the assembly hall of the Endicott-Johnson Company, shoe manufacturers; and those in attendance were entertained at lunch by the Company in its dining hall.

The first three papers were descriptive of the medical work of the Endicott-Johnson Company. The Company supplies medical service to its employees, and their families free. It has an organized medical department with a personnel of 26 physicians who serve a population of between 25,000 and 30,000 workmen and their families. A nursing service is supplied, and clinics and hospitals are maintained. When specialists are needed, they are called from Binghamton and other cities, and are paid their usual fees by the Company. (A description of the work was printed on page 860 of the September, 1924, issue of this Journal, as a part of the medical survey of the City of Binghamton of which Johnson City is an adjoining suburb.)

Dr. Daniel C. O'Neil, Chief of the Medical Service of the Endicott-Johnson Medical Department, read a paper entitled "Industrial Medicine" in which he described the work of his organization. Dr. Arthur W. Booth, of Elmira, in discussing the paper, called attention to the fact that the service was a demonstration of community medicine carried on among about one-third of the people of a community having about 100,000 population. The service seemed to go on naturally and quietly, and physicians engaged in ordinary practice had an open mind toward it. As a matter of fact, there are several physicians doing private practice among the employees who are entitled to free medical service. Statistics of the service seem to show that the average number of patients treated by each doctor, the incomes of the physicians employed in the medical service, and the total cost of the service to the Endicott-Johnson Company do not differ widely from the statistics of similar services given by physicians in private practice.

The second paper was on the subject of "Feeding During the First Year of Infancy," by Dr. Raeburn J. Wharton, pediatrician of the Endicott-Johnson Medical Department. This paper was discussed by Dr. Mary J. Ross, of Binghamton.

The third paper of the series was on "Painless Childbirth by the Use of Synergistic Analgesia," by Dr. Ralph J. McMahon, of the Company's service. It was discussed by Dr. Stuart B. Blakely, of Binghamton.

Dr. W. Russell MacAusland, Surgeon-in-Chief of the Orthopedic Department of the Carney Hospital, Boston, Mass., gave a paper on "Backache," illustrated with lantern slides. The discussion was opened by Dr. Charles M. Allaben, of Binghamton.

Dr. Russell L. Cecil, of the Cornell Medical School, gave a paper on physio-therapy, and exhibited some of the latest approved pieces of apparatus. The paper was discussed by Dr. Clarence Anderson, of Elmira.

A Clinical demonstration of common skin diseases was given by Dr. Howard Fox, of New York City, on patients brought by local physicians.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, told about the practical service which the State Society was giving to the physicians of New York State, particularly that of coordinating the work of the county medical societies and encouraging them to undertake the civic duties which the people expect from the medical profession.

Dr. Wilber G. Fish, in his presidential address, enumerated some of the more striking activities of the county medical societies beside those in connection with their meetings.

The Broome County Society had conducted a pediatric course of lectures, and had done anti-diphtheria work.

The Chenango Society had promoted courses in pediatrics and a lecture on cancer.

Cortland County had conducted a cancer lecture, supported anti-diphtheria work, and planned a campaign against goiter.

Otsego County had conducted post-graduate lectures for two years, and supported the anti-diphtheria work.

Steuben County had supported a post-graduate course, and had prepared a weekly health note to be published in the newspapers of the county.

Tioga County had continued its prenatal work that was described at the District Branch meeting last year.

Tompkins County had promoted post-graduate study, and had taken steps for the establishment of a county health department.

Dr. Daniel S. Dougherty, Secretary of the Medical Society of the State of New York, said he had been asked the question, "Does the State Society Function?" A concrete reply to that question was the presence of six officers of the State Society at this meeting, and the necessity that they should make an auto trip of 130 miles to hold an important conference in the evening with representatives of a county medical society, and then another dash of 80 miles to meet with the Seventh District Branch on the following morning. He said that Dr. George M. Fisher, President of the State Society last year, had spent 115 days visiting county societies and attending meetings of committees. There was seldom anything spectacular or "newsy" about the relations of the State Society to the local organization; but there was much study of local needs, and much time given to advising local societies in matters which appear commonplace when put in print.

THE SEVENTH DISTRICT BRANCH

The Twenty-first Annual Meeting of the Seventh District Branch of the Medical Society of the State of New York, was held in the Geneva Country Club, Geneva, N. Y., on Wednesday, September 28, 1927. Dr. Claude C. Lytle, the President, presided. About 125 members were present out of a District membership of about 700, of whom about two-thirds live in Rochester in the County of Monroe. Luncheon was served in the club house at noon.

The first period of the morning session was given over to the officers of the Medical Society of the State of New York.

Dr. James E. Sadlier, President, discussed the policies of the State Society, and said that one of the great activities of the Society is to promote the practice of medicine along all lines which have been indicated by modern scientific progress. New developments in the knowledge of the causes of diseases had pushed back the time when a disease could be recognized until now it was possible to discuss their pre-clinical signs, or those which are apparent to the trained physician while the patient is still going about his work. A knowledge of the sources of contagion and modes of infection has shown that their control can be accomplished only by collective action by both the public and the physicians. Hence, organizations of physicians are necessary if the medical profession is to apply all the forms of medical knowledge which it possesses. The alternative is that the public will create a class of doctors who will practice civic medicine at public expense, and this means socialized medicine. The State Medical Society is meeting the situation by encouraging county medical societies to appoint committees on Public Health and Public Relations, whose duties shall be to make public recognition of the health problems of their communities and devise plans for their solution. Fortunately, the county medical societies are responding to the plans of the State Society, and are demonstrating their public spirit in the practice of civic medicine.

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, said that his committee gave concrete expression to the policies expressed by Dr. Sadlier, and was seeking to prepare physicians to practice all modern forms of medicine, especially the recognition of common forms of sickness while they were in their incipient stage and curable. The greatest public health service that physicians can render to the public is that of preparing themselves to cope with diseases in their early stages. To this end the committee will provide lectures and courses of instruction along any practical line that a county society may choose. The committee is now working on a plan by which teams of three physicians will be sent out to give lectures on allied subjects.

Dr. W. W. Britt, Chairman of the Committee on Medical Economics, said that one of the most important economic subjects now before the medical profession is the relation of lay health organizations to the practice of medicine; and that its solution consisted in the active leadership in public health by the medical societies.

Dr. Britt also outlined the work of his committee in relation to Workmen's Compensation, and especially in combatting the erroneous impression held by labor leaders because a few doctors had come into notoriety in compensation cases. He suggested that every county society have a committee on medical economics. He said that a questionnaire was now being prepared on economics to be sent to the secretary of every county society.

The scientific program consisted of three papers.

Dr. John B. Deaver, of Philadelphia, read a paper on "Lower Abdominal Emergencies," which will be published in this Journal. He made a plea for the earlier recognition of appendicitis—a disease in which there is an increasing mortality. He enlivened his paper with interesting side remarks and humorous stories.

Dr. Foster Kennedy, of New York City, gave a talk on the "Differential Diagnosis of Organic and Fundamental Symptoms and Signs." Dr. Kennedy dwelt on neurological conditions, especially hysteria, which is a typical disorder that is called functional. He enriched his talk by descriptions of cases of so-called "shell shock" in which fixed ideas of paralysis or mutism persist because they afford a means for escaping service at the front. He spoke of the need for a show of great positiveness on the part of the doctor in order to impress his will upon that of the patient.

Dr. Kennedy told of studying Coue for two days. The healer was absolutely ignorant of all kinds of science, and resolutely shut his mind to facts; and in this way he maintained a firm conviction in his own power, and transmitted it to those who were paralyzed because of lack of will power. If ten paralytics received his ministrations, and one had hysteria and got well, Coue would dismiss all thoughts of his failures on the nine patients and would remember only the tenth one.

Dr. Ward Crampton gave a talk on the method of making a periodic health examination, and demonstrated it on an actual case.

The following officers were elected for two years beginning at the close of the next annual meeting of the Medical Society of the State of New York:

President, Austin G. Morris, M.D., Rochester.

First Vice President, Ralph Sheldon, M.D., Lyons.

Second Vice President, M. Louise Hurrell, M.D., Rochester.

Secretary, John A. Lichty, M.D., Clifton Springs.

Treasurer, Edward T. Wentworth, M.D., Rochester.

THE THIRD DISTRICT BRANCH

The Twenty-first Annual Meeting of the Third District Branch of the Medical Society of the State of New York, was held on October first, in Troy, New York. Dr. Edgar A. Vander Veer, of Albany, the President, presided, and the Secretary, Dr. William M. Rapp, recorded. The plan of the meeting was that a series of clinics was held in the several hospitals in the morning, a luncheon in the Hendrick Hudson Hotel at one o'clock, and an afternoon scientific session. The attendance was over 100 out of about 500 members of the seven county societies of the district. The physicians attended the morning clinics in gratifying numbers, from 20 to 30 being at each hospital.

The meeting was in charge of a committee from the Rensselaer County Medical Society, consisting of Dr. Augustus J. Hambrook, President of the Society, Chairman, who gave an address of welcome. Dr. Hambrook's assistants were the past presidents of the society, Drs. Frank M. Sulzman, John H. Reid, John J. Rainey, John D. Carroll, Eugene F. Connolly and Peter L Harvie.

The programs of the morning clinics at the Troy hospitals were as follows:

At the Troy Hospital, an institution with 350 beds, the clinical program was:

A.M.

9:00 Varicose Veins (Venesection) Dr. C. F. Kivlin.

9:30 Hypertrophied Tonsils (Tonsillectomy) Local anesthesia. Dr. J. D. Carroll.

10:00 Ventral Hernia (Hernioplasty) Local anesthesia Dr. C. F. Kivlin.

10:00 Congenital Hip Dislocation, bilateral (Lorenz Method) Gas anesthesia. Dr. J. H. Reid.
Chronic Osteomyelitis Humerus (Incision and Drainage). Dr. J. H. Reid.

10:00 Oesophagoscopy for Diagnosis. Dr. J. J. Rainey and Dr. J. T. H. Hogan.

10:30 Toxic Adenoma (Thyroidectomy). Gas anesthesia. Dr. W. T. Diver.

10:30 Convergent Strabismus (Reese Resection). Dr. J. B. Burke.

11:00 Clinical Eye Condition (Demonstration). Dr. F. M. Sulzman and Dr. J. B. Burke.

11:00 Paragraphia with Paraphasia Dr. H. F. Albrecht.

11:00 Interesting X-Ray Plates (Demonstration). Dr. D. E. Rowan.

The Samaritan Hospital of 350 beds, had the following program:

8:30 Tonsillectomy and Adenoidectomy. Dr. Irwin Johnston.

9:00 New Obstetrical Forceps described by Dr. Calhoun.

9:30 Synergistic Anaesthesia and Obstetric Technic, Dr. W. D. Van Auken.

9:30 Diagnostic Curettage for uterine bleeding. Curettement of Femur for old Osteomyelitis. Dr. P. L. Harvie.

10:00 Medical Clinic. Dr. H. Gordinier

11:00 Surgical rounds in Wards. Dr. D. W. Houston, Jr.
Results in decapsulation of Kidney for Nephritis. Dr. Benson.
Result in case of resection of intestine for Volvulus. Dr. Willard Smith, House Physician.
X-Ray exhibit by Dr. T. A. Hull.
Pathological specimens exhibited in the Laboratory. Dr. H. W. Carey.

The Leonard Hospital, 75 beds, had the following clinical program:

9:00 Tonsillectomy. Dr. Baker.
10:00 Nephrotomy for Removal of Renal Calculus. Dr. Connally.
10:00 Clinical Demonstration of X-Ray. Dr. McShane.

In addition other public institutions of a medical nature, of which Troy has an unusual number, were open for inspection. These included the Pawling Sanatorium for Tuberculosis, the Marshall Sanatorium for the Insane, three foundling asylums, five orphanages, and three homes for aged men and women.

The afternoon program consisted of two parts: 1, a presentation of the policies of the State Medical Society; and 2, a scientific program.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, spoke on the newer duties of physicians which had developed in the course of the evolution of medicine. The former ethical standard that the patient must seek the doctor, still held good so far as the private practice of curative medicine was concerned; but it was no longer true in the practice of public health and civic medicine. The people must be educated in hygienic subjects, and in the essential service which doctors can render in preventive medicine. They do not seek the doctor in the prevention of distant diseases, largely because they do not realize the scope of the service which a doctor can render. It is entirely ethical that every physician should seek to educate the people medically by means of speeches and writings done in the name of county medical societies. The State Society encourages every county society to enter the field of medical publicity, and to give out news of the activities of all its committees. That is the standard means for bringing a knowledge of medicine to the people.

Dr. Daniel S. Dougherty, of New York City, Secretary of the Medical Society of the State of New York, explained some of the misapprehensions regarding the State Society. He said that the Society had sent 2,000 letters to physicians who had neglected to register last year, and many physicians had expressed their gratitude for having the matter called to their attention, for they had supposed that the Medical Society would register their names for them.

Dr. Dougherty explained the status of the Grievance Committee, and said that it was not a committee of the State Medical Society, but was an official committee under the Regents of the State of New York. The State Medical Society was connected with it only to the extent of nominating some of its members—a privilege which it shared with the Homeopathic and the Osteopathic societies.

Three papers were presented at the scientific session.

Dr. James T. Gwathmey, Anesthetist to the Skin and Cancer Hospital, New York City, gave a lecture on "Preliminary Medication in General Anesthesia," illustrated with lantern slides and photomicrographs. He gave figures to show that preliminary injections of morphine lessened the shock of the anesthetic and prolonged the period of ease immediately after the operation. Also he said that the hypodermic injection of magnesium sulphate intensified the action of the morphine, and prolonged its effects about four times.

Dr. Gwathmey also described the condition of analgesia, as distinguished from anesthesia, that followed the rectal injection of a mixture of oil and ether; and said that ether is given off at a constant rate which corresponds to that required for maintaining analgesia.

Dr. Walter T. Diver, of Troy, read a paper on the treatment of goiter, which will be published later in this Journal.

Dr. Harry W. Carey, of Troy, gave a paper on the "Comparative Results of Treatment of Cancer of the Cervix."

COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION

The Committee on Public Health and Medical Education of the Medical Society of the State of New York, held a meeting on September 22 in the Ten Eyck Hotel, Albany, N. Y., in order to organize its activities during the coming year. There were present, Dr. Thomas P. Farmer, of Syracuse, Chairman; Dr. John O. Polak, of Brooklyn; Dr. George F. Chandler, of Kingston; Dr. Edwin MacD. Stanton, of Schenectady; Dr. William A. Groat, of Syracuse; Dr. George F. Longstreet, of Binghamton; Dr. Stanhope Bayne-Jones, of

Rochester, and Dr. Clayton W. Greene, of Buffalo.

Dr. Farmer explained that the Chairman of the Committee was elected by the House of Delegates, and his eight associates were appointed by the council on the nomination of the Chairman. A member had been appointed from each District Branch. Two of the members were obstetricians and gynecologists; two were surgeons; two practiced internal medicine; one was a health commissioner; and one was a laboratory specialist. The personnel of the Committee was representative in its geographic distribution and in the branches of medicine that are practiced.

Dr. Farmer reported that the educational work of the Committee had been highly successful and popular during the past three years under the Chairmanship of Dr. Charles A. Gordon. Dr. Farmer had done much preliminary correspondence during the summer in order to ascertain the wishes of the members of the county medical societies in regard to the subject of medical education; and had requests from a dozen or more societies for aid in carrying on work in which the Committee was interested. He explained that the public health activities of the Committee were closely related to those in education, and that its specific activities consisted principally in promoting courses of medical lectures for county medical societies. A liberal budget which had been allowed to the Committee, had been used largely for clerical hire and for honorariums and expenses of the lectures.

Dr. Farmer said that the direct public health work of the Committee had consisted largely in the encouragement of county medical societies to engage in public health work such as that of the Schenectady County Medical Society in the prevention of diphtheria.

Dr. Stanton said that the members of the Schenectady Society had voted to engage in city-wide anti-diphtheria work on the plan that every doctor should be ready to give immunizations in his office, and that the society should approve the action of physicians who would try to influence the patients of his family to take the immunizations. The Medical Society had also made arrangements with the City Department of Health to give immunizations to the poor, and had secured the cooperation of the Red Cross, the Committee on Tuberculosis, the Metropolitan and John Hancock Life Insurance Companies, and other lay organizations. The result was that 1,300 immunizations were reported, of which 77 per cent. were done in the offices of the doctors, and 23 per cent by the city Health Department. But the greatest benefit was the favorable attitude of the doctors toward the work, and of the people toward seeking the immunizations.

Dr. Chandler said that the Schenectady plan had appealed to the physicians of Kingston, and that the Academy of Medicine of that city was now about to put on a free clinic in the Armory, and had secured the active support of the lay organizations engaged in public health. While the Kingston plan included a free clinic, it was like that of Schenectady in that the work was originated and directed by the physicians.

On motion of Dr. Chandler, the Committee voted unanimously to approve the plan of leadership in a public health project which the Schenectady County Medical Society had followed in its anti-diphtheria work.

The Committee then discussed the lectures and courses to be promoted by the Committee. Should they be elementary or advanced?

Should a course consist of six lectures or only four, or even less?

Should the obstetrical and pediatric lectures be continued?

Experience had shown that physicians were influenced in their attendance largely by the attractiveness and clearness of expression of the lectures. Doctors are not medical students who are compelled to learn a subject no matter how dry it may be or how obscure its presentation. But practicing physicians will gladly attend a course of lectures which are presented simply and clearly as were those in the courses in St. Lawrence and Jefferson counties. It was the function of the Committee to discover lecturers who could invest their subjects with interest, and present them in a way which doctors could apply in their daily work.

The decision of the Committee that counties which had asked for lectures on special subjects should be supplied; and that the Committee should offer courses of from two to four lectures on miscellaneous subjects. It further decided that the members should canvass their districts for speakers whose style of teaching was attractive to physicians.

The Committee passed a motion to request the Council and Trustees to make provision for the employment of a permanent secretary to handle the correspondence and business of the Committee.

MEDICAL WARES

SUTURES

Closing wounds by sewing is almost as old as surgery itself, but the standard practice of ligating arteries to stop bleeding dates only from Ambrose Paré who, in the year 1552, made the use of the ligature a standard procedure in military surgery. While it had long been known that hemorrhage could be stopped by tying the bleeding artery, yet secondary hemorrhage often occurred days after suppuration took place. Since cauterization sterilized the wound, it was the accepted method of controlling hemorrhage until Paré introduced clean methods of applying ligatures.

Silk and linen were the materials formerly used for ligatures and sutures, for they were not digested or affected by the body fluids, but held as long as shreds of a bleeding vessel remained. These sutures had to be removed from healing wounds, and "taking out the stitches" was often almost as painful as putting them in.

Strings for harps and other musical instruments were made from the intestines of sheep in ancient times. The word for harp in Greek and Latin was kithara, and its root, kit, appears in the modern words guitar and zither. The word for guitar string was therefore kitgut, which the imaginative musicians changed to catgut.

The use of harp strings for sutures was mentioned by Arabian writers over a thousand years ago. These strings were full of septic bacteria and spores, and quickly melted away in the suppuration which they caused. But when aseptic surgery began to be practiced, catgut soon became the principal suture material.

The development of practical means of preparing catgut was a long evolution in which high-class scientific researches in bacteriology and chemistry were necessary. The connective tissue of the intestine, from which the sutures are made, is an insoluble collagen, which is changed to soluble gelatine when it is heated in the presence of water; and so boiling water could not be used for sterilization. Alcohol at first seemed to be a suitable material, but it nearly always contained water which softened the collagen when it was boiled. Also the short period of boiling did not kill the spores, especially those of tetanus, which are frequently present in the intestines of sheep and other animals.

Chemicals were also given a thorough trial, but they either made the sutures brittle or were ineffective in killing the bacteria. Carbolic acid produced only a surface coagulation which protected the deeper parts from its direct action, and mercury bichloride had the same great disadvantage. It was not until methods of heat sterilization were developed that catgut which was sterile, strong, and flexible could be produced.

Crude catgut is a standard article of commerce, for it is used in musical instruments, tennis rackets, clock weights, and for other purposes requiring strings of great strength and durability. However, that intended for surgical sutures is made from the intestines of freshly killed sheep with special care and under the most aseptic conditions that are possible.

The spun catgut comes to the suture maker in the form of skeins or coils. The first process in the preparation of sutures is to standardize their size. This is done by holding a string tense between the two hands and forcing it into a gauge every foot or two. Seven standard sizes are recognized, having a diameter varying from about one quarter of a millimeter for the size number 000, to two-thirds of a millimeter for number four size.

The strength of the strand is also tested. Catgut of the size 000 will support a weight of about nine pounds, while size 4 will support about 48 pounds when tested over the pulley wheel of a Chatillon dynamometer.

The strand is also subjected to the action of solvents which remove its foreign matter, especially the fat which is one of the principal causes of the slipping of knots.

The suture material is cut to standard lengths, dehydrated, and placed with toluol or a similar satisfactory medium in glass tubes which are sealed in a flame. They are then ready for sterilization, which is the most important of all the steps in the preparation of sutures.

Sterilization must be so complete that it kills the most resistent spores without impairing the strength or flexibility of the sutures. A long search for a suitable liquid in which the sutures can be sterilized has resulted in the choice of toluol, a coaltar distillate. This liquid will not affect the strength and flexibility of the sutures, and it will remain stable under a high degree of heat. It is also volatile, and has a pleasant odor, and remnants that are left in the sutures will not injure the tissues.

The sealed glass tubes containing the sutures and the storing liquid are immersed in tanks containing cumol, or a similar liquid, which is heated to a temperature of 165 C. (329° F.) This temperature is maintained for five hours, while it is constantly watched. It is sufficient to destroy the life of all bacteria and their spores, including those of tetanus. If a surgeon uses sutures in sealed tubes that have been sterilized by heat according to the standard process, he may be confident that they are free from all forms of life, and cannot cause infection of any kind.

Since the tubes of sutures have been heated to a degree far above the boiling point, they may be boiled in water at the time of an operation in order to sterilize their outside.

Some sutures are labelled "non-boilable." These have been sterilized by heat, and then placed in a tubing fluid of 95 per cent. alcohol, the presence of the 5 per cent. of water giving extreme flexibility to the catgut. However, a surgeon may make the ordinary suture flexible by immersing it in sterile water for a few seconds.

It may be desirable to impregnate a suture with an antiseptic in order to produce an antiseptic action around the suture in the tissues. Iodine was formerly used, but it tended to weaken the suture. Double iodide of potassium and mercury does not injure the suture material. It will stand boiling, and is even more germicidal than iodine.

White silk and linen have the great disadvantage of being almost completely insoluble in the body, plain catgut is sometimes too soluble, and does not last throughout the entire period of the healing process. Methods have therefore been developed to make the sutures more resistant to the digestive action of the serum of the body, and yet remain flexible and absorbable. The ordinary process is that called chromicizing, and is similar to that used in tanning leather by the chrome method. The process may be applied with accuracy, so that the tanning process may be carried to any stage. A mild stage of tanning will produce a suture whose strength in the tissues will remain unimpaired for ten days; while a more complete tanning will cause the suture to last for forty days. Chromicized sutures are usually classed as 10, or 20, or 40 day sutures, according to the number of days their strength will remain unimpaired in the tissues.

The chromic acid and chromates which are used in tanning sutures are harmful to the tissues; and therefore it is necessary to remove them from the sutures.

Chromicized sutures are sterilized in the same way as those of plain catgut. They may also be impregnated with germicidal chemicals.

The tendons of animals were among the earliest of suture materials. Those of the tail of the rat were once extensively used for fine suturing, but at present the principal tendons used are those from the hind legs of the kangaroo—a jumping animal whose tendons are long. The crude tendons torn from the legs are in the market in bales of promiscuous lengths and sizes. Apparently the only use for the tendons is that for sutures.

The process of preparing kangaroo tendons is similar to that for catgut. They are assorted for lengths and sizes, and are cleansed and dehydrated, and finally sterilized by heat. They may also be chromicized.

Silkworm gut is made from the silkworms that are ready to spin their cocoons. The worm is killed and steeped in acetic acid so that its flesh will separate from the gland which secretes the silk. The gland is then drawn out to a length of a foot or more, and its ends are twisted around pegs in a board and left to harden and dry. Since the strand is firm and smooth, boiling in water is sufficient to sterilize it.

A common size of silkworm gut sutures is number 0, and is about one-third of a millimeter in diameter, but other sizes are also made.

Horsehair is also frequently used for superficial sutures. The old fashioned way of its preparation was by simple boiling, but since it is likely to be contaminated with spore-bearing bacteria, horsehair sutures are best sterilized at a higher temperature, as in the standard method of preparing catgut.

The preparation of sutures is an example of the essential service rendered to the medical profession by manufacturers. Older surgeons will recall the tedious process of preparing the sutures for operation—the reeling of the catgut on spools, and its sterilization in boiling alcohol, with the frequent softening and exasperating breaking during the operation. But in these days the surgeon buys every kind of suture already prepared for use, and even threaded in a needle, if he wishes. He knows that, when infection occurs in a wound, his sutures are not to blame if he has taken them from the original packages put up by the manufacturer.

THE DAILY PRESS

SOCIOLOGY FOR POLICEMEN

The New York *Herald Tribune* for August 24 has an editorial on the proposal of a Fordham University professor that sociology should be taught to policemen. The writer credits the policemen with an instinctive knowledge of applied sociology, and says:

"In the course of his rounds if he has the wit of the average Irish officer of the law, he acquires a greater knowledge of sociology than all the pedagogues combined. He does not, of course, reduce his wisdom to graphs, classifications and theories; he can't discuss with you the 'laws' that govern human nature in its social phases, but he can apply his wisdom with the speed of intuition and the tact of diplomacy to individual cases, which are all he has to deal with until, if ever, he becomes a commissioner; and he can often express it, too, in a homely philosophy, grounded in the soil, or the pavements, and nearer to the truth than any textbook printed.

"A fair-sized gulf separates the academic 'science' of sociology from the practical knowledge of human nature and conduct required by a policeman. In a sense, too, they are in conflict. The sociologist should not fail to see the forest for the trees; the policeman on the other hand, should not fail to see the trees for the forest. A fear assails us that a sociological cop on our congested streets would get run over."

HEALTH OF COLLEGE STUDENTS

College authorities are accepting more and more responsibility for the health of their students. It is only a few years ago that faculties held the opinion that college students were grown men with serious minds that gave due consideration to every influence that prepares them for their life careers. This opinion was seldom justified, for college men are a husky lot to whom a headache or the loss of a few meals and absence from classes for a day or two mean little. However, college faculties have often been embarrassed by discovering unsuspected pneumonia in a boy lying abed because he felt tired, and meningitis in one who had a headache.

Faculties have even adopted the attitude that the college boy is faking when he pleads sickness as an excuse for absence from classes. The professors have the machinery and organization for judging every claim of sickness made by students; and absence from classes for half a day should set the diagnostic machinery in motion to seek out the student and find what ails him—whether it is laziness or actual illness.

The importance of health to a student was well expressed by the President of Yale, Dr. J. R. Angell, in his address on the opening of the College on October 2, which was reported in the New York *Times* of October 3rd, as follows:

"What are the talents most essential for an honorable, profitable and happy four years at Yale? I do not hesitate to put in the forefront physical health and vigor. The ascetic and emaciated saint is a historic figure, and there are doubtless forms of spiritual experience which accrue to a complete mortification of the flesh. But, unless one is prepared to defend the morbid view that life itself is unworthy and gladly to be left behind, one must look to bodily health as a blessing to be devoutly sought and scrupulously cherished.

"Not long ago our colleges gave most of their attention in physical matters to the athlete, who least of all stands in need of special opportunity; but now every man has his chance, not only for that refreshment of body and mind which comes from wholesome sport, but also for the constant advice and surveillance of men skilled in the cure and prevention of disease."

Yale University has been a leader in providing medical attention for its students. It maintains a health service with a full-time physician at its head, and offers medical advice and hospital accommodations to the sick. But Cornell University goes much farther than any other college, for it has a system of ascertaining the health of the student who is absent or unaccounted for during a single day. It requires the incoming Freshmen to attend lectures on hygiene, and it explains to him the system of health supervision; and the plan *works*. A description of the system was published on page 31 of the January 16, 1925, issue of this JOURNAL in connection with the Medical Survey of Tompkins County.

THE MALTHUSIAN DOCTRINE

Is an increase in population always a blessing? Does not war, famine, and pestilence tend to strengthen the race by killing off the weaklings? On the other hand, does not medical science tend to produce a race of degenerates by preserving the sickly and those unfit to endure the stress of life?

These are old questions that were discussed by Thomas R. Malthus, a meek and gentle Englishman, a rural curate and professor of history who, in 1804, published a book on population after much travel and research throughout Europe. The statesmen of his day were genuinely alarmed over the rapid increase of population that had taken place throughout Europe until the problem of feeding the people in the larger cities was becoming acute. Since there was no prospect of cultivating more land or of transporting food rapidly for long distances, an increase in population seemed to threaten disaster to the race. The alternatives were either more food or fewer people.

Those were the days of belief in the divine rights of kings and the special privileges of the highly born. Purple, and fine linen, and sumptuous fare were for the nobility. Give the peasants more comfort and vigor, and they will soon become so numerous that they will die of starvation. This had been the accepted doctrine for centuries. Thomas Malthus was too good a Christian to propose man-made war in order to reduce the population; but famine and pestilence were beyond the power of man to control, and were the divinely ordained agents for bringing ultimate happiness to the people.

War has always been an accepted solution of the problem of food supply. If a people lacked food, they went out and took it from neighboring tribes or nations. Eighteen hundred years before Malthus, the people of Helvetia, some 300,000 in number, found the boundaries of Switzerland too narrow for their existence; and so they sought to take the fields away from their next door neighbors, the Gauls. But Caesar drove them home, doubtless decreased in number temporarily; but Switzerland now supports three million people with ease. Caesar taught the Gauls how to make their lands produce double and triple their former yield. He found the people living in villages, between which five miles of ground were unoccupied because the villagers quarrelled over it. "Stop fighting, and till all your land," were the orders of Caesar which quickly settled the problem of over-population in Gaul.

A hundred and twenty-five years after the death of Malthus the question of over-population is still acute, but his remedies are no longer considered proper. Wars are outlawed; famines are averted by railroads and steamboats; and pestilences are prevented by medical science. But Caesar's remedies of hard work and good will are more potent than ever. The doctors will supply the vigor for doing hard work, and the ministers of the Gospel will supply the good will; and between the two, human life will be increasingly pleasant.

These homiletic thoughts are suggested by an editorial in the New York *Herald Tribune* of August 22, which says, in discussing an article by Professor E. A. Ross in the August *Century* magazine:

"The white race is responsible for increasing not only its own numbers but the numbers of the browns and the blacks. The astonishing increases of world population in the last generation have not been due, Professor Ross reminds us, to any great rise in the rate of births, nor even in the main to the elimination of famine. The chief cause has been sanitation, operating to reduce the death rate. Sanitation is an invention of the whites. Recently we have made it world-wide, conquering the diseases of other climes and other races, as we had already conquered our own. The result is that these other races are expanding like the gas out of a balloon. Already they begin to press upon their own food resources. Presently they will press upon ours.

"With all good will in the world toward our racial companions on this planet, there is no gainsaying the fact that living is a competitive business. An unchecked increase of any one race cannot but lead in the end to the desire, if not the intention, of absorbing the resources of some other race. It is unthinkable that we who have invented the sanitary procedures for the rest of the world should now withdraw them merely because we fear that they are too effective for our own safety.

"To safeguard our humanity is more important even than to save our lives. There must be another way out—a way less cruel for everybody. What is most needed now is study. Disaster in any event is remote. There is plenty of time to digest these awkward facts about increasing racial populations and to decide what need be done."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

Clinical Physiology (A Symptom Analysis) In Relation to Modern Diagnosis and Treatment. A text for Practitioners and Senior Students of Medicine. By Robert John Stewart McDowell, D.Sc., M.B. With an introduction by W. D. Halliburton, LL.D., F.R.C.P. Octavo of 383 pages, illustrated. New York, D. Appleton and Company, 1927.

Methods and Problems of Medical Education. Sixth Series. Quarto of 275 pages, illustrated. Seventh Series. Quarto of 104 pages, illustrated. New York, N.Y., Division of Medical Education of The Rockefeller Foundation, 1927.

Medical Clinics of North America. Vol. 10, No. 6. May 1927. (Heart Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Text-Book of Bacteriology. By William W. Ford, M.D. Octavo of 1069 pages, with 186 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $8.50.

Collected Papers of the Mayo Clinic and the Mayo Foundation. Volume XVIII, 1926. Octavo of 1329 pages, with 386 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $13.00.

The American Illustrated Medical Dictionary. A New and Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography, etc., with the pronunciation, derivation and definition. By W. A. Newman Dorland, A.M., M.D. 14th Edition, revised and enlarged. Octavo of 1388 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1927. Flexible binding. Plain $7.00 net; Thumb Index $7.50 net.

A Text-Book of Pathology By Alfred Stengel, M.D., and Herbert Fox, M.D. 8th Edition, reset. Octavo of 1138 pages, with 552 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $10.00.

Hypotension. By Alfred Friedlander. Octavo of 193 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50. (Medicine Monographs, Volume XIII.)

The Human Body in Pictures. A Visual Text of Anatomy, Physiology and Embryology. by Jacob Sarnoff, M.D. Octavo of 120 pages, illustrated. Brooklyn, N.Y., Physicians and Surgeons Book Company, (1927). Cloth, $2.50.

Lippincott's Pocket Formulary. By George E. Rehberger, M.D. Narrow octavo. Philadelphia and London, J. B. Lippincott Company, (1927). Cloth, $3.50.

Die Morphin-Erkrankungen. Von Dr. Benno Hahn, Octavo of 166 pages. Heidelberg, Dr. Herbert Grossberger, (1927). Paper, Marks 6.80.

International Clinics. Edited by Henry W. Cattell, A.M., M.D. Thirty-seventh Series, Volume II. Octavo of 308 pages illustrated. Philadelphia and London J. B. Lippincott Company, 1927.

Standard Methods of the Division of Laboratories and Research of the New York State Department of Health. Augustus B. Wadsworth, M.D., Director. Octavo of 704 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $7.50

Diseases of the Newborn. A Textbook for Students and Practitioners. By James Burnet, M.A., M.D. 12mo of 275 pages. London and New York, Oxford University Press, 1927. Cloth, $1.85. (Oxford Medical Publications).

Ker's Manual of Fevers. Revised by Claude Rundle, O.B.E., M.D. 3rd Edition. 12mo of 346 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $3.75. (Oxford Medical Publications).

The Thomas Splint and its Modifications in the Treatment of Fractures. By Meurice Sinclair, C.M.G., M.B., Ch.B. Octavo of 168 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $4.50. (Oxford Medical Publications).

Normal Midwifery for Midwives and Nurses. By G. W. Theobald, B.A., M.D. Octavo of 258 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $3.15. (Oxford Medical Publications).

Therapeutic Malaria. By G. de M. Rudolf, M.R.C.S., L.R.C.P. Octavo of 223 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $3.85. (Oxford Medical Publications).

A Text-Book of Psychiatry for Students and Practitioners. By D. K. Henderson, M.D., and R. D. Gillespie, M.D. Octavo of 520 pages. London and New York, Oxford University Press, 1927. Cloth, $5.50. (Oxford Medical Publications).

Medical Clinics of North America. Vol. 11, No. 1. July, 1927. (Chicago Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Diagnosis and Treatment of Diseases of the Stomach. With an Introduction to Practical Gastro-Enterology. By Martin E. Rehfuss, M.D. Octavo of 1236 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $12.00.

The Anatomy of the Nervous System. From the Standpoint of Development and System. By Stephen Walter Ranson, M.D. 3rd Edition, revised. Octavo of 425 pages, with 284 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $6.50.

The Foundations of Nutrition. By Mary Swartz Rose, Ph.D. 12mo of 501 pages, illustrated. New York, The Macmillan Company, 1927.

The New Medical Follies. By Morris Fishbein, M.D. 12mo of 235 pages. New York, Boni and Liveright, 1927. Cloth, $2.00.

Mental Handicaps in Golf. By Theo. B. Hyslop, M.D. With forewords by Rolf Creasy and John Henry Taylor. 16mo of 111 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $1.50.

BOOK REVIEWS

Lister, As I Knew Him. By John Rudd Leeson, M.D. Octavo of 212 pages. New York, William Wood and Company, 1927. Cloth, $3.50.

Every physician should read this book. He should read it for the rare pleasure to be derived from a perusal of its pages. He should read it for the story of the man who made present-day operations a commonplace. He should read it to get fixed in his mind the true and authentic history of one of the great men in the history of medicine.

The first chapter . . . Before Lister . . . should be done in brochure form and broadcasted to all doctors throughout the world. This should be followed by the chapter entitled . . . Description of an Operation.

The book tells in its early pages of the frightful mortality from surgical procedures. Especially interesting is the story of a young man about to be married who consulted one of the well known surgeons of that day. He said his bride-to-be objected to his crooked nose. The surgeon straightened the septum. In five days the patient was on the post-mortem table. This was no unusual happening.

It will surprise most readers to learn that while Lister was making history destined to travel down the years to infinity, and while his clinic was crowded by well known doctors from America, Europe, the Orient, and Africa . . . never did the British doctors, especially of Edinburgh and men on other divisions of Lister's hospital honor him by attending his clinics. He was not a prophet in his own country.

The author worked with Lister. He is one of the few still living who worked with this great man. And so such a delightful, simply written authentic volume about Lister by one who knew and worked with him is sure to be read and reread by physicians the world over.

We recommend most highly to all who read these lines this book.

T. S. W.

The Life and Work of Sir Patrick Manson. By Philip H. Manson-Bahr, D.S.O., M.D., and A. Alcock, C.I.E., LL.D. Octavo of 273 pages. New York, William Wood and Company, 1927. Cloth, $5.50.

Except to those interested in Tropical Medicine and certain phases of medical history probably few know about Sir Patrick Manson. And yet he was one of the real and true pioneers in medicine. His work in Tropical Medicine, especially as regards Malaria were beacon lights pointing the way.

The book is delightfully written, interesting, and well worth while. To anyone interested in the lives of real Doctors of Medicine, their struggles, work and final achievements, this volume is earnestly recommended.

T. S. W.

Pygmalion or the Doctor of the Future. By R. M. Wilson, M.B., Ch.B. New York, E. P. Dutton & Company, 1926.

This is one of the today and tomorrow series in which the writer attempts to tell what the doctor of the future will, and what he will be able to accomplisr in the way of cures. The author examines and discusses in detail the belief, a symptom is a sign of disease. His conclusion is that symptoms are signs not of reaction to disease, but of altered reaction to life occasioned by the presence of disease. He points out the value of this new discovery and relates some of the remarkable cures that have been affected by means of it especially when applied to diagnosis.

F. B. D.

Lectures on Internal Medicine. (Delivered in the United States, 1926.) By Knud Faber, M.D. Octavo of 147 pages, illustrated. New York, Paul B. Hoeber, Inc., 1927. Cloth, $3.00.

There are four lectures in this volume, namely "The Etiology and Pathogenesis of Achylia Gastrica," "The Intestinal Origin of Pernicious Anemia," "Benign Glycosuria" and an "Historical Outline of Medical Therapy."

Chronic Achylia is believed by the author to be due to an exogenous cause produced by external factors acting on the stomach either by direct irritation of the mucous membrane or through the blood circulation by a toxic action on the gastric parenchyma. Gastritis with achylia should be pictured not as a superficial inflammation but as a disease of the glandular parenchyma analagous with nephritis or hepatitis.

Faber believes that the central fact in the pathogenesis of pernicious anemia is its origin in intestinal intoxication. The achylia generally present is believed to be primary to the anemia and in some way contributory to its occurrence.

In the lecture on benign glycosuria the author gives the usual figures for a normal blood sugar threshold as 0.16 to 0.18%. In true renal glycosuria the threshold is found to be 0.05 to 0.12% or lower and in the renal alimentary or cyclic glycosuria it is generally 0.12 to 0.15%. In the former type sugar may be present in the urine at any time and in the latter is found only after meals and not in the morning or night. The author believes that in the same individual the position of the threshold is constant during the lifetime and that this is true both of benign glycosuria and true diabetes. If the fasting blood sugar is abnormally high the diagnosis of true diabetes should be made.

W. E. McCollom.

The Ship-Surgeon's Handbook. By A. Vavasour Elder. 3rd Edition. 12mo of 523 pages. New York, William Wood and Company, 1927. Cloth, $3.75.

In a narrowed field of work, a most interesting outline pertaining to the medical duties aboard ship, not only on the Atlantic service but also on the high seas in general, has been brought up to date in a most pleasing volume. The author, after years of travel in the capacity of ship surgeon, gives not only his own experiences but that of his fellow workers. To the young physician about to make a trip or two following his hospital career, valuable information relative to his duties are clearly detailed and enables him to comply with all regulations aboard ship as well as entering and leaving various countries which have detailed paper requirements. As a book of information to the casual reader, much interest is aroused by the easy approach and pleasing manner in the presentation of the subject.

E. W. S.

High Blood Pressure: Its Variations and Control. A Manual for Practitioners. By J. F. Halls Dally, M.A., M.D. 2nd Edition. Octavo of 196 pages, illustrated. New York, William Wood and Company, 1926. Cloth, $4.00.

The second edition of this excellent work on blood pressure is the result of the demand for some complete presentation of the subject. This edition explains in detail many of the less understood facts of the value of blood pressure readings, together with the causes of various pressure readings. The methods of obtaining correct readings clearly illustrated. Methods of treatment for high pressure are given. This is an instructive, authoritative, up-to-date work on the subject of high blood pressure.

Henry M. Moses.

DISEASES OF THE DIGESTIVE ORGANS. With Special Reference to their Diagnosis and Treatment. By CHARLES D. AARON, Sc.D., M.D. 4th Edition, thoroughly revised. Octavo of 927 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $11.00.

In this fourth edition, Aaron has added much valuable new material, but unfortunately, as is the case with most revisions, has not deleted enough of the old and more or less obsolete material. The book is now practically an encyclopedia of gastroenterology, and can be used as a reliable reference work on the history and practice of this special field.

The new illustrations of roentgenographic findings in the various conditions in which X-ray diagnosis is of help are among the best in any text book.

The chapters on diet are most sensible—instead of diet tables there is a comprehensive discussion of the principles involved, so that the reader may make up his own diets to fit a given case, in accordance with these principles.

A good chapter on diseases of the mouth is most helpful, as are the chapters on rectal diseases.

On the whole the book merits a place in any complete medical library.

THE PSYCHOLOGY OF MENTAL DISORDERS. By ABRAHAM MYERSON, M.D. 12mo of 135 pages. New York, The Macmillan Company, 1927. Cloth, $1.40.

The public possesses a greater fund of misinformation concerning mental disturbances than on almost any other medical subject. Therefore, this little book, coming from an authoritative source, should prove of definite service. As the author expresses it, it "seeks to stimulate intelligent non-professional interest in a serious subject, and thus make possible for society to grapple more resolutely with the problem of mental disease."

The book is written in such a delightful style—and with such a commonsense appreciation of relative values—that it cannot fail to hold the reader's interest. And much of its contents will prove enlightening to the physician as well as the lay reader.

FREDERIC DAMRAU.

THE TREATMENT OF CHRONIC ARTHRITIS AND RHEUMATISM. By H. WARREN CROWE, M.D., B.Ch. Octavo of 196 pages, illustrated. London and New York, Oxford University Press, 1926. Cloth, $2.75. (Oxford Medical Publications).

The author reports such wonderful results in the treatment of the above mentioned conditions that one is surprised that the results have not been obtained by many others and universally used. When a method of treatment is advocated by an individual with brilliant results, and others do not get the same results, we feel that something is at fault with our technic or our knowledge. This volume is carefully presented, is clearly expressed, is instructive, contains many illustrative case histories, and shows results obtained by the author. It will well repay a careful study by anyone who may have to treat these cases, so difficult to treat, and obtain lasting benefit. If vaccine therapy by a master can cure these patients, much illness can be prevented.

HENRY M. MOSES.

A MANUAL IN PRELIMINARY DIETETICS. By MAUDE A. PERRY, B. Sc. 16mo of 146 pages. St. Louis, The C. V. Mosby Company, 1926. Cloth, $1.25.

This manual has been prepared for "the instruction of nurses in preliminary dietetics." It is essentially for nurses, and is elemental in character. The work is arranged in fifteen lessons, and each chapter is accompanied by a summary which indicates very definitely what is to be learned. The author is the director of Dietetics in the Montreal General Hospital, and she handles her subject with the firm hand of a seasoned veteran. Many of the older nurses who did not have the benefit of a real course in dietetics during their years of training will find much of value in this small volume. L. C. J.

OBSTETRICS FOR NURSES. By JOSEPH B. DE LEE, A.M., M.D. 8th Edition, revised. 12mo of 635 pages, with 266 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $3.00.

Doctor De Lee is so well known to the medical profession, as an author, as a teacher, and as a man of wide clinical experience, that he needs no introduction.

This is the eighth edition of Obstetrics for Nurses, which first appeared in 1904. When a text book has reached the eighth edition, and when it has been in use as a standard for more than twenty years, it compels consideration for itself.

In this edition, as in former editions of the book, the author has been careful not to reflect all the changes and controversies which agitate the field of obstetrics, but rather to bring before the student nurses, only well established facts and practices..

The text book has been changed but little from that of former editions. Several old illustrations have been omitted, and new ones added. Some new subjects have been added, such as—the iodine and mercurochrome preparation of the parturient for labor.

Gwathmey's synergistic obstetric analgesia, and identification of new born babies.

Part I considers the anatomy and physiology of the female reproductive system, in its relation to the pregnant woman, and it also includes a chapter on the hygiene of pregnancy.

In Part II the care of the patient during labor and the puerperium, as well as the care of the child, are carefully set forth.

Part III is devoted to the pathology of pregnancy and puerperium, as well as to the pathology of the new born child.

The Appendix contains much valuable information in regard to home nursing in obstetrics. Methods of sterilization of hands and utensils and a thorough consideration of various diets, are also covered in this chapter.

The chapter on infant feeding, which has been revised by Dr. D. B. Witt, of the Pediatric Department of the Chicago Lying-In-Hospital, is clear and concise.

The book is comprehensive, and covers the field in great detail. The language is simple and easily within the grasp of the student mind.

WM. SIDNEY SMITH.

ACTIONS AND USES OF THE SALICYLATES AND CINCHOPHEN IN MEDICINE. By P. J. HANZLIK, M.D. Octavo of 200 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $3.50. (Medicine Monographs, Vol. IX.)

In view of the fact that rheumatic fever is third in the list of the first sixteen diseases disabling the adult sick in the United States, this very comprehensive and authoritative discussion should prove of much interest. In addition, it should settle many mooted questions regarding the actions of salicylates and, incidentally, cause a discard of much of the manufacturers' literature regarding the superiority of this or that preparation.

Briefly, the conclusions of Dr. Hanzlik are about as follows:

1. The actions producing the characteristic relief are antipyretic and analgesic, together with an increased capillary permeability (diuresis).
2. That the solium salt is the most efficient form.
3. That an equal dosage of sodium bicarbonate modifies the gastric irritation.
4. That the dosage should be one gram hourly to the point of salicylism.
5. That the action of cinchophen is about the same as the salicyl compounds.
6. That the intravenous route is not superior to the oral.
7. That the salicylates are useless in chronic cases.

M. F. DE L.

OUR NEIGHBORS

CHIROPRACTORS SEEK A NEW LAW IN OHIO

The October first issue of the Ohio State Medical *Journal* devotes considerable space to a proposed law which would "permit chiropractors to treat infectious, contagious and venereal diseases, to sign birth and death certificates, practice in hospitals, state institutions and under workmen's compensation law."

The bill is to be submitted to the voters at the general election by the process of the initiative after "twelve similar bills have been defeated by the legislature in recent years. The proposed bill received only 31 votes out of 136 members of the House of Representatives on March 15."

The Constitution of Ohio permits the Governor to appoint committees to prepare explanations and arguments "for and against" an initiated bill. The arguments are limited to 300 words each and are to be circulated by the Secretary of State. The committee to present the arguments against the bill consists of "Bleecker Marquette, Secretary, Cincinnati Public Health Federation, Cincinnati; V. Lota Lorimer, Lakewood, President, Ohio State Association of Graduate Nurses; and William C. Wendt, member Ohio General Assembly, Columbus."

The argument prepared by the committee is as follows: "Vote 'NO' on the initiated bill. Do not grant chiropractors (with eighteen months schooling) all legal rights and duties of regular physicians (with six years training) by permitting chiropractors to treat infectious, contagious and venereal diseases, to sign birth and death certificates, practice in hospitals, state institutions and under workmen's compensation law.

"A single 'adjustment' method, (chiropractic) for appendicitis, diphtheria, typhoid, syphilis, smallpox, diabetes, cancer, Bright's disease, rabies and all types of physical and mental ailments is dangerous.

"Medical science has proved the value of antitoxins, vaccination, insulin, salvarsan, anesthetics, antidotes for poisons, and surgery. All those are denied by chiropractic theory.

"Should chiropractors who discredit bacteriology, immunization and preventive medicine, be permitted to treat infantile paralysis, tetanus, meningitis, diphtheria, typhoid fever and scarlet fever?

"At present, chiropractors are licensed as 'limited practitioners' after examination by State Medical Board in basic branches; anatomy, physiology, chemistry, pathology and diagnosis, and by an examining committee of licensed chiropractors appointed by the board. Four hundred are so licensed, 160 in the past four years. Such 'limited practitioners' are not now and should not be permitted to treat infectious, contagious and venereal diseases, practice obstetrics, use drugs or surgery or sign death certificates.

"Would you accept chiropractic for hog cholera, glanders or bovine tuberculosis?

"Courts have repeatedly declared the present license laws and administration correct and just—proper protection against unscrupulous and unqualified practitioners. Chiropractors seek 'special privilege' under pleas for 'fair play.'

"Twelve similar bills have been defeated by the legislature in recent years. The proposed bill received only 31 votes out of 136 members of the House of Representatives on March 15.

"If in doubt about this dangerous proposal ask your health commissioner, physician or hospital authorities. For protection of public health, vote 'No'."

Editorially the *Journal* says: "Spectacular publicity stunts and campaigns such as the chiropractic 'Go-to-Jail' campaigns have characterized many efforts to secure special privilege. These have failed to impress the public apparently, for they have been abandoned.

"Now the tactics have been altered. The million and more electors of Ohio will pass upon the proposal in November. The theory back of this is rather clear; in other words, it may be easier to fool and hoodwink a great mass of people than a few who have opportunity to investigate the misleading claims and fallacious statements.

"Community health in Ohio is confronted with a real crisis. Every citizen should use his influence toward defeating the chiropractic proposal as a means of shielding his fellow townsmen, his family, friends and relatives from the possibilities of a complete destruction of public health safeguards."

SNAKE BITE TREATMENT

The July issue of the *Texas State Journal of Medicine* contains two articles on rattlesnake bites that were read on April 26, before the Texas State Medical Association by Col. M. L. Crimmins and Dr. Dudley Jackson of

(*Continued on page* 1164, *adv. xiii*)

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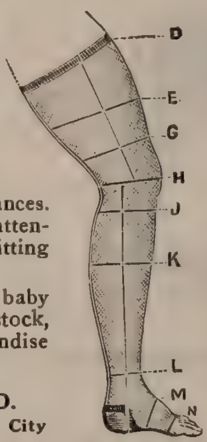

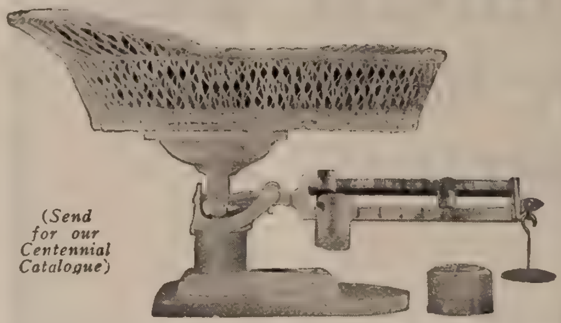

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(*Continued from page* 1162)

San Antonio, Texas. Col. Crimmins described the venom as follows:

The venom is a thick, amber colored liquid, neutral or slightly acid, and has a specific gravity of 1.030 to 1.050. It is soluble in a normal salt solution, and generally, in distilled water. When dried, it forms clear yellow crystals, in elongated laminæ. It is composed of the following: (1) A powerful fibrin ferment; (2) an antifibrin ferment which attacks the coagulating element of the blood; (3) a proteolytic ferment which dissolves the muscles; (4) cytolysins, which dissolve the red and white blood cells, endothelial and nerve cells; (5) an antibacteriocidal substance of the nature of an anticomplement; (6) neurotoxins, with a special affinity for nerve cells; (7) a neurotoxin with an affinity for the nerve terminals of the muscles, and (8) a substance which reinforces the cardiac tonus and causes the heart to stop in systole, in some cases.

The venom is largely composed of an albuminoid, and is chemically closely related to the normal constituents of the blood. Therefore, no chemical antidote can be administered into the circulation, which would destroy the venom, that would not, at the same time, destroy the blood. After the venom has reached the circulation, we have to rely upon an antivenom serum to neutralize it. Snake venom is extremely irritating in addition to its slow absorption. It is diluted by the lymph in the intercellular tissues, and if we can abstract it from where it is being absorbed, we can decrease the pain and by eliminating a part of the venom, increase the chances of recovery. If a series of small punctures or cross cuts are made along the periphery of the swelling the bloody venomized serum will ooze out through the openings, which can be further accelerated by using a small suction pump, similar to a breast pump, with a circular nozzle for flat surfaces, and a narrow one for use on the fingers and toes. A rubber tourniquet should be applied proximal to the wound, to delay absorption until other first aid measures are instituted. The tourniquet should be removed about every twenty minutes, for a period of about ten seconds, to re-establish the circulation and to prevent gangrene. A tourniquet that has been applied too tightly may cause the venom to be carried deeper into the tissues and between the bones, where the blood vessels are not compressed, and where it is impossible to use local treatment.

The prognosis of snake bites in man is affected as follows:

(A) Factors in which the snake is concerned. (1) Blind strikes which are made with the mouth closed, due to imperfect vision. This is

(*Continued on page* 1165, *adv. xv*)

(*Continued from page* 1164, *adv. xiv*)

caused by the thick skin which covers the eyes for a week before shedding. (2) Miscalculation of the striking distance because of imperfect daylight vision. (3) A failure to close the lower jaw, which prevents the excretory muscles from being brought into full play. (4) Fangs not sufficiently elevated. (5) Inaccurate approximation of the venom papillae, which is the case when new fangs are about to replace the old ones. (6) Diminished venom due to: (a) Feeding; (b) hibernation; (c) aestivation; (d) captivity, and (e) extreme youth or old age.

(B) Factors in which the animal or person bitten is concerned: (1) Interposition of hair or clothing, thereby preventing a proper lodgment of the fangs. (2) Movement of the animal or person attacked, which causes an imperfect lodgment of the fangs or a miscalculation of the striking distance, by the snake. (3) The wound occurring in a very fat area, where the circulation is sluggish. (4) The wound occurring in an area having little connective tissue as on the finger, toe or shin.

Dr. Jackson described a series of experiments in which known amounts of venom were injected into dogs. He also demonstrated the existence of venom in the serum which exuded from cuts over the swollen area around the bite. He further showed that the venom could be extracted by persistent suction, and that the permanganate treatment was useless.

The following extracts are taken from Dr. Jackson's paper:

"A weak solution of potassium permanganate in a 1 : 3000 solution, will not oxidize a lethal dose of venom, even in a test tube. A 1 : 300 solution, and as strong as 1 per cent will not oxidize venom that has been injected into animal tissue. Even pure crystals of the drug showed no beneficial results in treatment, and it is our opinion after having observed recently a fatal case of rattlesnake bite in a child, that injection of a strong solution of potassium permanganate charred the tissues and prevented the normal outpouring of lymph which helps to wash out some of the poison and, in our opinion, this injection of permanganate in this manner contributed to this child's death.

"To our surprise, and contrary to the opinion of the supposed best authorities on the subject, we found that rattlesnake venom can be easily extracted mechanically. The text-books have insisted that it could not be, evidently, erroneously based on experiments conducted with cobra venom many years ago. Our grandfathers, who resorted to cupping, and the ignorant Indian who sucked the wound with his mouth, were doing much more to save the

(*Continued on page* 1166, *adv. xvi*)

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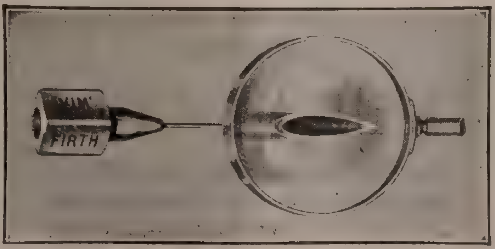

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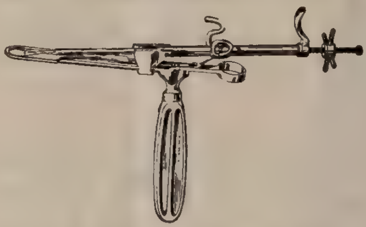

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(*Continued from page* 1165, *adv. xv*)

patient, than our scientific fellow with his "hypo" of potassium permanganate.

"We have learned a great deal from a study of over 60 autopsies performed on dogs that had died from the effect of snake venom.

"It has been generally accepted that venom was rapidly absorbed through the venous system and did not remain over a few minutes in the neighborhood of the bite. We have found that venom when injected into a dog's thigh, slowly spreads through the intracellular lymph spaces and finally finds its way into the inguinal lymph glands, where it produces a violent hyperemia, followed by death and necrosis of these glands. It spreads from this region to the glands located at the bifurcation of the abdominal aorta and up this chain to glands situated near the diaphragm.

"Logical treatment, which consists of free incision wherever there is a swelling, for in this, there is a concentrated venom in solution, and the nearer the swelling to the bite, the greater the concentration. This tissue should be incised freely and all of the blood and lymph possible extracted, for it contains the substance which will kill the patient, if allowed to remain in the tissues and become diluted sufficiently to be absorbed. Where there is swelling, there is venom being prepared by dilution for absorption. We have found venom in the area of a bite, 24 hours after its injection.

"It has been our experience that sufficient incisions are not made in most cases. Small cross cut incisions about one-eighth of an inch wide and one-fourth of an inch deep give the best result. A ring of these should be made at the top of the swelling and in nests of seven or eight over the areas where the greatest swelling is found. These can be continued up the arm, or over the chest if the swelling approaches these areas. These punctures or cuts should not be confined to the immediate site of injury. The most dangerous fluid is farthest away from the wound. Its absorption must be prevented as it is the source of the systemic poisoning. (This poison may be a new proteolytic substance formed from the action of the venom on tissues, as has been suggested by W. A. Bevan. However, it is most likely diluted venom, and is a fluid of fatal possibilities.)

"I wish to stress the proper method of treatment in cases of rattlesnake bite. A tourniquet should be applied to increase the venous congestion and assist in washing out the poison. A cross cut incision one-fourth by one-fourth inches should be made over each fang mark, or preferably to connect the two fang punctures. Suction should be applied for at least one-half hour. If this is done within an

(*Continued on page* 1167, *adv. xvii*)

(*Continued from page* 1166, *adv. xvi*)

our from the time a person is bitten, very little dditional treatment is necessary; however, if he swelling has increased up the arm or leg. ovocain should be injected, completely enrcling the limb above the proximal edge of the welling. A double line of small cross cuts, bout one-eighth of an inch deep and across hould be made. They should be about one ch apart, and encircle the limb. Suction hould then be used for one-half hour. If here is a pocket or some area more swollen han another, a nest of punctures should be nade over this area and suction applied. A rge quantity of bloody serum containing enom can be withdrawn. New punctures hould be made every few hours and suction epeated for one-half hour. This treatment hould be continued for the first eight or ten ours after the patient has reached the hospital. the swelling does not decrease, the entire rocess should be repeated. The puncture ounds will continue to leak the diluted venom ut of the tissues. Practically all the cases nder my observation, which had been treated y suction, were under rather than overeated, so when in doubt the number of puncures, and the amount of suction should be oubled.

“I wish to again stress the importance of olonic irrigations of salt and soda solutions. hey should be repeated about every four ours. Blood transfusions are also essential in esperately ill patients who have already had a reat many red blood-cells destroyed. The afected limb should be kept wrapped in a hot olution of magnesium sulphate. The hot soluion of magnesium sulphate or a sodium citrate olution will increase the weeping of these ounds. We have seen no sloughs in the cases f rattlesnake bites which were treated with uction.”

Antivenin, a serum for snake bites, is suplied by the H. K. Mulford Company, Philalelphia, Pa.

THE TRI-STATE MEDICAL CONFERENCE

The August number of the *Atlantic Medical ournal,* the organ of the Medical Society of the tate of Pennsylvania, comments editorially on he proceedings of the Tri-state Medical Conerence, which was reported on page 733 of the une first issue of the *New York State Journal f Medicine.* It is interesting to read the following official opinions of the leaders of the medial profession of the State of Pennsylvania:

“It is of interest to note that the greatest difiiculty seems to be to arouse from their lethargy he members of our profession to the necessity or being on tiptoes in matters of preventive

(*Continued on page* 1168, *adv. xviii*)

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(*Continued from page* 1167, *adv. xvii*)

medicine; that in all endeavors it first become necessary to educate the physician—to advis him how, when, and where things should be done He should be assuming leadership, but insteac too often he must be dragged along. Too frequently the public is far better instructed upoı matters of preventive medicine, because the physician will not keep abreast of the publicity tha is being continually given to the community and it is regrettable that when patients talk these matters over with their physician, the latter seems to assume the attitude, 'What is i all about?'

"We must realize that one of our greates problems is the education of the public in medical matters, and that to do so costs money. The county societies must realize their increasing responsibilities to themselves and to the public and the necessity for funds to meet these obligations.

"The discussion of the conference also plainly demonstrated that the physicians of the three States are falling down very badly on periodic health examinations. The public is being thoroughly instructed. The physicians are totally indifferent. The people, consequently, in too many instances are having this examination made by ar institute the physician condemns. There is no one to blame but himself. He must realize that he is the basic factor in all matters medical and he must assume his full responsibility. Unless he does, he fails to fulfill his mission and it is his financial loss.

"He must be keenly awake to the necessity of periodic health examinations of children of the pre-school age. This is essentially the problem of the attending physician. When the children are in school, various agencies begin to take hold, but much should be done previous to the time they go to school, and this very essential period must be properly consummated by the attending physician.

"The need of diphtheria immunization is most essential, and here again in the pre-school age, especially three to five years of age, is the time when this very important procedure should be done. The physician must advocate the necessity for it, urge its acceptance, and show his willingness to do it. The responsibility is primarily on the shoulders of the physician, more especially in children of the pre-school age. We must realize this. Not only should we urge immunization, but show our willingness to do it."

The supplement to the August issue of the *Journal of the Medical Society of New Jersey* also contains a side light on the Tri-State Conference in the following remarks by Dr. J. B. Morrison, Secretary of the Society, before the annual meeting on June 11:

(*Continued on page* 1169, *adv. xiv*)

(*Continued from page* 1168, *adv. xviii*)

"The reason for continuing this educational campaign is very, very great. It has been brought home to me more forcibly in my conferences with these Tri-State Medical Conferences than in anything else. We have learned in the last two sessions, especially the session in New York, of the enormous activities of social and welfare organizations. As Dr. Green said in his address yesterday, it has become a profession, and many of them enter into those professions with the zealousness of a missionary. They are backed up by influential people who give the greater bulk of their time, many of them women, to furthering these social welfare matters, and they are backed up by an enormous appropriation of money. They are here to stay; they are going to spend that money, they are going to do that work and here in New Jersey out of a clear sky they came to the medical profession for some guidance. The medical profession did not originate it. The Health Officer in East Orange and the Antituberculosis League were very, very anxious to get this work over, but they felt they wanted, in justice to the medical profession, to let the medical profession do the leading."

THE COMMONWEALTH FUND AID TO HOSPITALS

The Commonwealth Fund, with headquarters at 1 East 57th Street, New York, is one of the great foundations similar to the Milbank Fund. It conducts demonstration along health lines especially in child welfare, but very little publicity follows its work. It has recently taken up the work of aiding rural hospitals.

The *Journal* of the Maine Medical Association for August announced that Farmington, a village of 3200 people in West Central Maine, will receive $14,000.00 from the Commonwealth Fund to cover two-thirds of the cost of a 50-bed community hospital, to serve a community of 30,000 people that are shut off from other hospital facilities. The account says in closing:

"According to the last annual report of the Commonwealth Fund, the Board of Directors, in approving the project for building rural hospitals, had in mind "the obvious and widespread lack of accessible hospital facilities in general character in rural districts, and the accumulating evidence of the disadvantage of rural communities as compared with urban in the matter of health, as shown in many instances both by their higher morbidity and mortality rates, and the higher proportion of defects among rural school children. These hospitals, strategically located in various sections of the country, it is believed, will in time influence neighboring communities to establish similar facilities out of their own resources, and will help to break down the tradition that the hospital is purely rehabilitative."

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Every hospital is a teaching hospital in so far as it affords experience for a doctor. But the doctor who uses the hospital merely as a convenient home for his patients does not gain experience. A doctor must study and reflect on his cases, compare them with one another and with those of other observers, before he really has that experience with which the busy doctor is credited by the people generally.

Physicians have shown a great progress in making use of the educational opportunities which every hospital offers to them. The September issue of the *Rhode Island Medical Journal* discusses the teaching hospital in the following editorial:

"You must realize that this is not a 'teaching hospital.' How often have we heard this offered as a complete and unassailable excuse for inadequate equipment or inefficient methods in a hospital not directly connected with a medical school. And the pity is that the statement is made in all good faith and is usually accepted without question. It might be well, however, to consider carefully whether any hospital can perform its function without being, in a very real sense, a 'teaching hospital'.

"The primary purpose of a hospital is the care of sick patients, and many would say that this is the only purpose. But they forget that the care of patients involves trained personnel, chiefly doctors and nurses. For years it has been recognized that the training of nurses is a hospital problem, and so we have our hospital training schools doing excellent work in the teaching of nurses. It is harder for us to realize that the hospital must train its doctors. The internship is post-graduate medical work and should be recognized and treated as such. It should involve not only the performance of work without which it would be extremely difficult for us to run our hospitals, but careful and systematic instruction in practical medical and surgical subjects by well-qualified members of the visiting staff. Only in this way can the hospital properly supplement the very sketchy outline which is the best that any medical school can hope to give its students in the formal course; and failure of the hospital at this point means a poorly trained medical personnel with its inevitable effect on the treatment of patients. And this training must also be given to the younger members of the visiting staff to fit them for the more important work which will come to them in the course of years.

"Training of personnel, then, is a matter of vital importance to every hospital, and the institution which is not truly a 'teaching hospital' is not fulfilling its duty to its patients or to the community which it serves."

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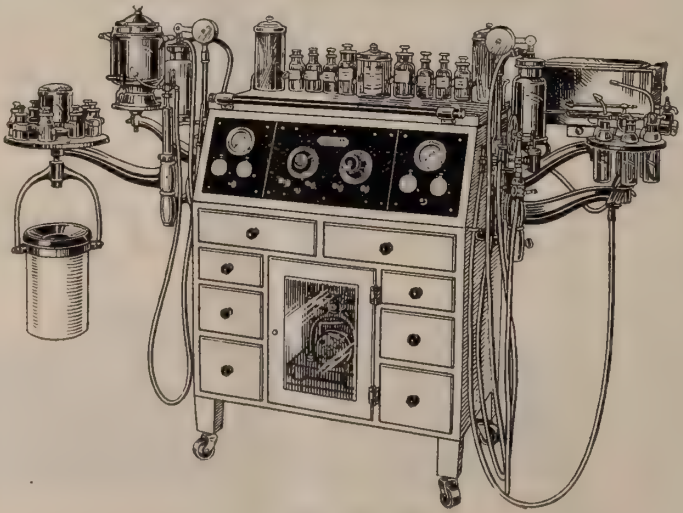

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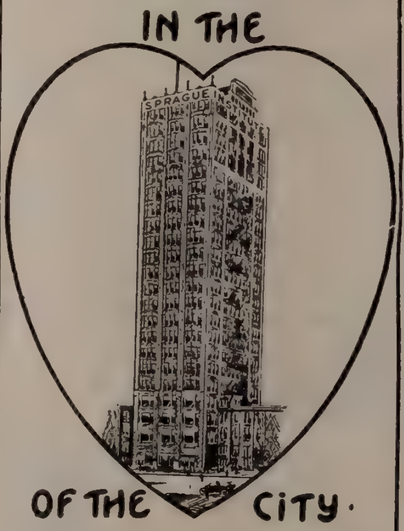

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FUNCTIONAL MEDICINE

Sickness consists in a disturbance of function rather than of structure. In order to know the abnormal, one must know the normal. The foundation on which the practice of medicine rests is a knowledge of the basic sciences, physiology, chemistry and anatomy, and the greatest of these is physiology.

This thought is set forth in the following editorial in the September issue of *Colorado Medicine*.—Editor's Note.

Function is the magic word of modern medicine. It gives the cue to precise diagnosis and successful therapy. It in no way supplants but rather complements the mechanical and anatomical viewpoint which has dominated scientific medicine for the past half century. The objective of the older view was primarily to determine the structural change underlying disease and to attempt to restore this changed tissue or organ to normal. Upon this solid rock surgery has justly established itself as first among therapeutic procedures. But functional medicine seems now to have its inning. Physiology has come to the aid of pathology in the practice of medicine. It is no longer sufficient to determine an accurate structural change of an organ, but rather the nature and degree of its functional impairment. Likewise our most successful therapeutic efforts are, as a rule, based on a knowledge of function rather than structure. Out of such a concept has sprung the accepted methods of measuring functional impairment of various organs. All too often the underlying structural pathology is a closed book. How different is impaired function! For example an accurate knowledge of limitation of function of the heart, kidneys, pancreas, nervous system, etc., and an adjustment of life within these determined limits renders the defects trifling.

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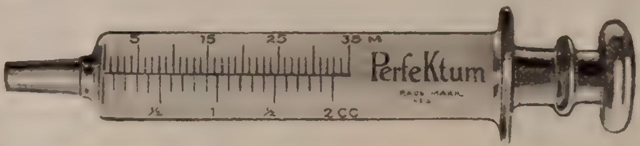

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RAMBLES IN THE FIELD OF GASTRO-INTESTINAL THERAPEUTICS*

By WALTER A. BASTEDO, M.D., NEW YORK, N. Y.

> "God-like is the physician who is a philosopher."
> —Hippocrates.

IN this paper it is my desire to give from my own experiences my answers to some of the questions which arise in the practice of medicine. But in making a personal contribution of this character I desire above all things to avoid a dogmatic attitude, for do we not all know that in the hands of different men what seem to be opposing methods attain apparently equally good results. On the advice of one of our busy New York practitioners I begin my talk on gastro-intestinal therapeutics with some remarks on foods.

FOODS.—*Milk.* Of the really ill there are just two classes of people in the world, those who are natural milk-drinkers, and those who are not. Would that all were of the former class, for milk contains all the elements necessary for growth and maintenance, even to iron for blood building, calcium for bone, phosphorus for brains, protein for muscle and vitamines and salts. Prof. Sherman of Columbia urges the use of milk for its calcium if nothing else. It contains practically the same amount as limewater. Moreover in the stomach milk takes up acid and is a soothing application to the stomach wall, and in the bowel it does not readily undergo putrefaction. The fact is, the good milk-drinker makes the doctor's task an easier one.

Of those who apparently are not good milk-drinkers many can be trained to become so, and such training is worth a trial. But there are a number who, try as they will, find that milk invariably sooner or later brings on headache, loss of appetite, gastric discomfort, flatulence or diarrhea. Such cannot be made milk-drinkers. The constipating properties of milk so much heard of are essentially due to the fact that it is not a residue former.

Milk is a liquid food only as it is swallowed, for after it reaches the stomach of normal secretory type milk becomes a solid or semi-solid food, the normal curd in the normal stomach being rather large and tough. In the highly acid stomach milk may form great hard lumps, while in the stomach that totally lacks gastric juice, the achylic stomach, it does not curd at all but passes to the duodenum in liquid form, there to be curdled by the pancreatic ferments. However, owing to regurgitation of duodenal contents it occasionally curdles in the achylic stomach in tough rubbery masses that pass the pylorus with difficulty, and indeed have caused temporary pyloric obstruction. I have had four such cases.

In normal subjects, not sick ones, Hawk and Rehfuss found that milk was digested with equal readiness whether drunk slowly or gulped; in fact, when it was bolted it had a finer curd and left the stomach more quickly than when it was sipped. In practice, however, one cannot depend on this, and in some cases it is well to have milk *eaten* rather than drunk, i.e., eaten with a spoon like soup.

If thought desirable we may ensure fine curds by boiling the milk, or by using one of the lactic acid milks, or we may abolish the curd altogether by adding to the milk sodium bicarbonate, sodium citrate or limewater or by peptonizing. Twenty minutes peptonization by the warm method is usually sufficient for this. Skim milk makes a tougher curd than whole milk, cream a finer curd. Excluding skim milk it may be said in general that the richer the milk the finer is the curd, but the greater is the delay in evacuation from the stomach. Half and half cream and milk, and especially 40 per cent. cream, are decidedly delayed in their evacuation and may result in sour stomach or some other form of indigestion. Boiled milk contains less soluble protein than raw or pasteurized milk but is more readily digested.

It is of interest to note that there is a limit to the digestion of any given substance, even of milk. Harley and Goodbody found that a normal subject on four pints of milk a day lost 2.18 grams of fat in the feces, on 4½ pints of milk he lost 2.95 grams, and on 5 pints he lost 5.13 grams, i.e., more than twice as much loss of fat on 5 pints as on 4 pints.

Soured Milks.—There are fashions in therapeutics, and like other fashions soured milks wax and wane in their use in medicine. In yesterday's fashion plates the most figured souring germ was the Bacillus Bulgaricus, in today's it is the Bacillus acidophilus, and writers now attribute to it the marvelous virtues formerly ascribed to the Bacillus Bulgaricus. The acidophilus germ was studied carefully 25 years ago by Herter, and discovered by him to be impractical as a therapeutic agent for the reason that it does not live in the bowel except under ideal conditions of feeding with milk and sugar of milk. Even then it is not a vigorously growing germ and in its dying condition can hardly have any great therapeutic value. It is very easily overwhelmed by the colon bacillus which multiplies 60 times as rapidly. Rettger and Cheplin, two of its greatest advocates though not practicing physicians, state that the acidophilus flora persists so long as lactose or dextrin diets are continued, otherwise not over 5 or 6 days; and many investigators report that there are scarcely any patients who show acidophilus bacilli in a vigorous living condition for as much as two weeks after a return to normal diet.

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* Read at the Twenty-eighth Annual Meeting of the Lake Keuka Medical and Surgical Association, at Lake Keuka, N. Y., July 15, 1927.

To affect the frequency of bowel movements in constipated insane subjects, Kopeloff found it necessary to give daily not less than 1000 c.c. of acidophilus milk with 300 grams of sugar of milk, and in some instances as much as 1500 c.c. of the milk and 400 grams or 13 ounces (nearly a pound) of sugar of milk per diem. And in a number of the cases these large amounts did not abolish the intestinal putrefaction. After a bacillus acidophilus culture, not acidophilus milk (Vitabac, one ounce three times a day), Max Kahn found a diminished indican output but an increase in the total ethereal sulphates of the urine, a result admitting of different explanations. In my experience most of the cases with intestinal putrefaction can be freed from this condition quite as quickly by the more palatable, more available and less expensive sweet milk, especially with the addition of lactose or starchy foods to make a lacto-farinaceous diet. As a matter of fact I am continuously seeing patients who have been on acidophilus milk in large daily quantities for months, or even a year or two, right up to the time of coming to me, and have even been having acidophilus germs injected into the bowel, yet who still show considerable intestinal putrefaction. A number of these patients have acquired sour stomachs from the lactic acid germs, some have developed irritated bladders from acid urine, and some have suffered from muscular rheumatic pains. Lactic acid milks are not constant, for their acidity increases from day to day so that eventually they become so sour as to be undrinkable.

In the use of acid milks I feel much like the consultant of that interesting book "A Corner in Harley Street" who wrote to his old aunt who had recently taken up the buttermilk fad, "Yes, buttermilk is a good food if you like it, personally I like mine sweet." Still if you cannot get patients to take the plebeian sweet milk, perhaps you can induce them to take acidophilus milk because it seems like a medicine and is fashionable and expensive.

What I have said indicates to you that I do not consider lactic acid milks to have specific virtues because of the particular germ that is present, whether it be Bacillus acidophilus or B. Bulgaricus. Nevertheless, I do not look upon them as worthless. As a matter of fact in some cases any of these lactic acid milks may have real value. They may be good substitutes for flesh protein in those who eat too much flesh or ought not to eat meat at all, and who do not have acid stomachs or rheumatic tendencies. They have a curd that is fine and readily digestible, and sometimes they are well tolerated by stomachs that rebel at sweet milk. They are especially well taken by those with achlorhydric stomachs. They contain less fat and sugar than sweet milk, hence have a lower caloric value. There is some evidence that acid milks or even lactose alone will promote the absorption of calcium and phosphorus, but the matter is not finally settled.

In regard to acidophilus preparations other than milk, Bass (1922) reported a research in which among those examined he found absolutely worthless all commercial cultures and tablets that purported to contain living Bacillus acidophilus. In fact, of the best of the tablets examined "it would take one billion to contain as many bacilli as are contained in one liter of acidophilus milk." Recently, James published the results of a similar study on commercial liquid broth and milk cultures, jelly cultures, tablets and powders which purported to contain B. acidophilus or B. Bulgaricus. Of 107 samples examined only 13 yielded the species claimed on the label in reasonably pure form and in satisfactory number.

Eggs are good food for invalids, and like milk contain all the elements necessary for the growth of the animal body; but owing to their sulphur containing proteins they may be putrefactive. Raw eggs are non-irritant in the stomach, but as shown by the experiments of Osborne and Mendel at Yale, they are not fully digestible. After raw eggs these investigators were able regularly to recover egg albumin from the feces, while they were unable to do so if the eggs were cooked to the point of coagulation of the albumin. If raw egg albumin is not digested it is very putrefactive in the intestines. Still the glass of milk and egg may be a justifiable prescription if there is no intestinal putrefaction, for Hawk found that raw eggs mixed with milk prevent the formation of hard milk curds and promote the digestion of the milk, while it has also been found that this fine subdivision favored the digestion of the egg. Hard boiled eggs digest readily if in fine subdivision, otherwise not.

Flesh Foods—Beef, the beef of Old England, has been a mainstay of the healthy and aggressive stock of the white races for centuries. Why then must all those who desire health nowadays be forbidden beef? How much we hear of red meat and white meat, dark meat and light meat! The red meats are charged with containing a greater amount of extractive, that is, substances which can be extracted by water, chiefly creatin, the nucleins, and the xanthine bases which favor the production of uric acid. Yet over twenty years ago, Offer and Rosenquist demonstrated that the purin content of light and dark meat was practically the same, and that there were greater differences in the percentages of nuclein and purin in the flesh of young and old animals of the same species, the flesh of different individuals of the same species of the same age, even pieces of meat taken from different parts of the body of the same animal, than were found on an average between those of chicken and beef. These findings were corroborated by J. Walker Hall of England. Von Noorden many years ago declared that "it is high time that the old prejudice against dark meat should be abandoned and the true facts of the case be recognized." Hutchinson, Gaultier, Strauss and other food experts since that time have agreed with these findings, yet daily I am confronted with the statement that "on my doctor's orders I have eaten no red meat for one or two or three years" as the case may be, and the patient may immediately add, "I have eaten so much chicken that I shiver when I see a hen." Virtuous obedience to futile command! The profession is responsible for this red meat fallacy, and if it was high time twenty years ago it is certainly high time now for medical men to abandon it. Beef, lamb, chicken, turkey, veal, pork, and the other flesh foods are equal producers of extractive, the only exception being the flesh of fish which produces only about half or two-thirds as much, and fat free beef, i.e., beef steak, which runs slightly higher than the average. When meat is boiled or stewed it has about the same equivalent as fish, for nuclein and hypoxanthin pass into the water. But Hawk says that as the extractives are strong gastric stimulants there is a distinct loss in gastric digestive power if the extractives are removed, and that meat deprived of extractives shows a greater amount in the stools, i.e., undigested, than unextracted meat.

Furthermore, from an extensive study of stools and the returns from colon irrigations, I long ago reached the conclusion that chicken is distinctly more putrefactive in the intestine than any other of the ordinary flesh foods; and these earlier observations have been confirmed by subsequent experience. It is my belief that chicken has hurt more people than has beef.

The only signifiicant differences between light and dark meat are the amount of blood present and the amount of connective tissue. In the breast meat of young chicken Mitchell, Zimmerman and Hamilton found only 4 per cent. of the nitrogen in the form of connective tissue, while in the thigh muscles of the same animal the nitrogen of the connective tissue might reach 15 per cent. But this merely relates to the toughness and not to extractive, for while the meat of older animals contains more hypoxanthin, that of younger animals contains more nuclein. The difference is largely dispelled by cooking, which causes the white fibrous tissue to lose most of its toughness. For this reason I never use *raw meat,* even in the much used scraped beef sandwich. Cooking has no effect on the yellow elastic tissue which we largely discard as gristle.

Bacon, so often recommended for children and invalids is, like other preserved foods, rather resistant to the digestive juices. Its fat shows a low digestibility. On a diet of beef and bacon containing 96 grams of fat represented essentially by the bacon, Gaultier recovered 17.2 grams of fat in the feces, while with the same amount of fat supplied by milk he recovered only 3 grams. Hawk, Rehfuss and Bergheim have demonstrated that bacon takes 1½ times as long to leave the stomach in normal individuals as fresh pork, sausage or ham.

Fruits.—From the intestinal point of view fruits furnish considerable indigestible roughage and other residues which tend to make them laxative; and they may also be laxative through the cathartic acids and salts which they contain. For example, orange, lemon and grape-fruit contain potassium citrate and also free citric acid which forms sodium citrate in the bowel. Thus the eater of the fruit obtains a dose of laxative citrate. Grapes contain potassium bitartrate or cream of tartar which becomes Rochelle Salts in the duodenum. The skins of fruits bear numerous bacteria and yeasts, and in some cases have been found to carry cysts of protozoa and eggs of worms. If the skin is not removable this may be important. Orange juice and orange are different foods, for after orange the stools invariably contain chunks of orange tissue and many orange cells full of unliberated orange juice. The same may be said of grape-fruit. Bananas and oranges are among the best furnishers of vitamines, but bananas should either be very ripe or be cooked.

Fruits are base or alkali-formers to the system and that is one of their virtues, but *in the stomach they are distinctly acidifiers,* tending to irritate and induce a hypersecretion of gastric juice. Therefore, in hyperacidity conditions they are to be avoided. Cooked fruits tend to be less irritant than raw fruits, for they are in a better condition of disintegration. In many conditions of the bowel, for example, mucous colitis and spasticity fruits sometimes make fermenting acid fibrous masses which do far more harm than could be produced by any of our mild tonic laxatives. Indeed in many of these cases the stoppage of coarse fruits and vegetables permits the bowels to move more normally.

Mushrooms, reputed in some quarters to have a high food value, are for the most part indigestible and are readily recovered from the feces. In a putrefactive type of bowel they may be highly putrefactive.

Bran is a substance whose usefulness for man has been over-rated. Thirty-three per cent. of it consists of pentosans which are not digestible by humans. According to Osborne and Mendel it is irritating to the stomach and intestines; it is therefore contraindicated in hyperacidity, mucous colitis and other states of gastrointestinal irritability.

Bread.—Graham bread contains the whole wheat, while whole wheat bread contains only part of the husk of the wheat kernel, but because of the bran present and the oil of the embryo both are less digestible than white bread and may be irritant in both stomach and bowels. White flour is bolted and is therefore in very fine subdivision. Murrill, Mattill, Carman and Austin found only 87.2 per cent. of the proteins of whole wheat flour digestible by humans, while of white flour they found 99.5 per cent. of the proteins digestible; and the liberation of the starch of bread is dependent on the digestion of the gluten part of the protein. Whole wheat flour does not keep well, and though it furnishes vitamine B, and a slight increase of salts its bread is in general a less valuable food than the more digestible and more palatable white bread. In this connection McCollum and Simmonds remark that dyspeptics or others "would gain much more through adhering to a diet well-balanced than through adopting this or any other dietary whim or fad." Osborne and Mendel feel that the foods usually eaten in an ordinary diet supplement the deficiencies of white bread better than the wheat embryo itself. In any case the yeast used in preparing bread makes up any vitamine B deficiency.

PEPSIN.—The Pharmacopoeia standard for pepsin is that in a weak hydrochloric acid medium it must be able to digest 3000 times its own weight of coagulated egg albumin (in 2½ hours). That is, one grain of pepsin can digest at least 6¼ ounces of the white of egg which is one-eighth protein. It can digest other animal proteins at about the same rate, so that in round numbers we can say that 5 *grains* of pepsin will digest the protein of one pound of roast beef, lamb, chicken or fish, or a dozen eggs.

Here is a drug of enormous potency, yet it is one that is absolutely without indication in therapeutics so long as the gastric juice contains any pepsin at all. Its sole use is when there is complete absence of pepsin and if employed at all it should be accompanied by hydrochloric acid to make an artificial gastric juice.

The digestive ferments are powerful substances, and if they are present even in small amounts there is no occasion to prescribe them.

INTESTINAL ANTISEPTICS—Of the many substances administered by mouth for this purpose none has proven satisfactory. This may readily be understood when the large capacity of thirty feet of bowel suggests the degree of dilution of the antiseptic that must take place. Remedies used for the purpose are either absorbed, split up or hopelessly diluted before they arrive at the lower reaches of the bowel.

Dragstedt, Dragstedt and Nisbet at the Mayo Clinic showed the impossibility of sterilizing the intestines by any ordinary antiseptics. In tied off intestinal loops they placed 70 per cent. alcohol, ether, 2 per cent. lysol, 5 per cent, silver nitrate, a saturated solution of zinc chloride, 5 per cent. phenol, 10 per cent. thymol in alcohol, a saturated solution of salol, a saturated solution of quinine sulphate, Dakin's solution, a solution of mercuric bichloride, and the solids, camphor, menthol, naphthalin and betanaphthol. In all these cases they failed to obtain sterilization. How then could we expect an antiseptic effect from such a small dose as could be given by mouth? The new dyes, acriflavin and gentian violet may prove to be better through their specific affinity for certain of the bacteria, and in 1-4000 solution by rectum they are being used in ulcerative colitis with some apparent benefit.

THE BOWELS.—Hurst says "I sometimes wonder whether (the colon) is not more sinned against than sinning, for what with attacks from above with purges, attacks from below with douches, and frontal attacks by the surgeon its sorrows are numerous and real."

CONSTIPATION.—When a patient comes for constipation an examination of the rectum will determine whether the site of his constipation is in the rectum or higher up. Normally the rectum is empty and feces passing into it give the subjective sensation of a desire to empty the bowels. Therefore if the rectum contains a fair amount of feces yet the patient has no desire to go to stool, he has rectal constipation. Hurst says that over fifty per cent. of all cases of constipation are of this type. It is usually due either to lack of tone and sensitiveness of the rectal wall, to injury to its supporting tissues as in rectocele, or to anal spasm as from painful hemorrhoids, fissure or fistula.

In *rectal constipation* it is needless to foist a lot of laxative drugs and coarse foods upon the whole alimentary tract. When due to atony it can be overcome by daily efforts to have a stool at a regular time, preferably after breakfast, by paying attention to the slightest sensation of desire to defecate, by keeping the feces soft with mineral oil by mouth, and by local treatment. This may be a glycerine suppository or an enema of a cup of water on arising, or the instillation of 2 or 3 ounces of olive oil at bedtime to be retained over night. Such an amount of oil can be conveniently inserted by the patient with a soft rubber ear syringe. If the trouble is a rectocele surgery is indicated. If painful hemorrhoids are the fault the oil at night and a 5 grain anesthesin suppository in the morning will usually suffice.

But *if the site of the constipation is higher up,* then our problem may be a more difficult one. People do not come to the physician for a slight sluggishness of the bowels, so in a patient presenting himself for constipation it is well to obtain a good history of the extent of his previous treatment by laxatives and coarse foods so that we may aim better at our object. Having satisfied ourselves that there is nothing surgical to deal with and having arranged for an abdominal support if there is ptosis, we begin our treatment by education and laxatives. The stock advice of an educational kind is about as follows: Whether you feel like it or not, go to stool every morning about the same time. When the desire to defecate comes on do not postpone going to stool, for the desire may disappear and fail to return. Take plenty of exercise. Drink a lot of water. Eat a sufficiency of a good mixed diet which contains plenty of roughage. You all know these rules. They are the standbys of the profession. But *exercise does not make the bowels move.* Dr. Meylan, Athletic Director at Columbia, has told me that among the students taking active gymnasium work over thirty per cent. are constipated. A number of my patients with chronic constipation have been professional or college athletes and gymnasium instructors who work hard all day long or planters who spend much of their time in the saddle. Others have been day laborers, diggers, longshoremen, compared with whose daily performance 36 holes of golf are a mere bagatelle. On the other hand many persons of completely sedentary life have no constipation. *Water does not make the bowels move* for while too little water may result in feces of a dried out concentrated type and thus favor the development of constipation, nevertheless the ingestion of a whole gallon of it does not result in a laxative action but serves merely to activate the kidneys.

Normal food in normal amounts is the cause of normal defecation in normal people; and undereating of food, which occurs in rundown conditions, is habitual with some women and is ordered by some physicians, is prone to result in constipation. Therefore in those not eating heartily strive to ensure a good appetite, with appropriate bitters if necessary; and in regulating the diet figure not only on its content of adequate residues but also on its ability to satisfy the palate so that the patient will eat it. Indeed, it is probably improvement in appetite that constitutes the apparent benefit in some cases from exercise. As a rule so long as undereating continues cathartic measures will have to be continued.

Foods that leave notable residues are whole wheat or bran breads, bran, the non-starchy vegetables such as carrots, beets, turnips, cabbage, lettuce and spinach and the fruits, including the coarse indigestible figs and dates. Being newspaper educated the patient will probably already have tried out these foods, for only after he has found them to fail does he consult a doctor. But the residues are such because they are indigestible, and there are many cases in which these coarse indigestible particles induce irritation in a sensitive stomach or bowel or result in an abnormal production of gas. Because of this they not only fail to overcome constipation but in some instances increase it. With a sensitive stomach or an irritable bowel, bland foods with mild doses of laxative will do more good and less harm than the coarse indigestible and fermentable messes that are so frequently swallowed. When using the bland low-residue foods a substitute non-irritant residue preparation may be provided, such as agar or mineral oil. My favorites are plain mineral oil and the cascara-agar preparation known as regulin. In mild cases these alone suffice to relieve and if continued long enough may result in cure. Many chronic neurotic patients take abundant laxatives and enemas because of a fear that if they do not have several liquid or soft movements every day they are headed for destruction. In these I find that regulin in doses of one or two teaspoonfuls with or after the meals or morning and night is often all that is needed to produce the normal soft formed stool, the patient's cooperation at the outset being secured by assurance that a temporary lack of bowel movements will do no harm and is a necessary preliminary to successful treatment.

Preparations of agar and mineral oil together have recently become popular, but like all emulsions they are mostly water. The Council of Pharmacy and Chemistry of the A.M.A., reports their content of oil and agar as follows: *Petrolagar,* petrolatum 61 per cent, agar 0.3 per cent; *Squibb's Petrolatum with Agar,* petrolatum 45 per cent, agar 1.3 per cent; *Agarol compound,* petrolatum 27 per cent, agar 0.6 per cent. Agarol contains in addition 15 per cent. of glycerin and in each tablespoonful three grains of phenolphthalein. None of these preparations contains more than traces of agar and all contain from 35 to 55 per cent. of water. They may be suitable preparations for use, but it is well to know just what we are using.

The two softening agents that I value are mineral oil and magnesia, preferably the milk of magnesia, but these agents have little if any actual stimulating effect upon the bowels. Therefore in the really refractory cases of constipation while the softening agents may have some use we must resort to more pronounced laxatives. In the use of these we have several rules:

Rule 1. *Have the medicine taken every day and at the same time of day.* P.r.n. administration never cures constipation.

Rule 2. *Do not employ drastics.* These drugs, jalap, podophyllum, scammony, colocynth, etc., can readily produce inflammation. In my laboratory days all that we had to do to demonstrate acute colitis and acute nephritis was to close off the rectum of a dog and administer a good dose of the compound extract of colocynth or the resin of jalap. I have seen death in a woman from the failure of the bowels to move in response to excessive doses of these drastics, the autopsy showing this same acute nephritis and colitis. Drastics are local irritants capable of producing inflammation, and chronic constipation is never cured by compound jalap powder or compound cathartic pills.

Rule 3. *Do not allow the feces to be liquid for any great length of time.* A liquid consistency of the feces is most favorable to fermentation and putrefaction, in fact the feces may be nothing but sewage. Chronic constipation cannot be successfully *cured* by replacing it with diarrhea.

Rule 4. *Do not allow the feces to continue highly offensive.* It means putrefaction with all its accompanying ills. The nose is all the laboratory apparatus required to detect this.

Rule 5. *Note the character of the stools.* From time to time have the patient bring a full stool in a pint glass fruit jar. Patients think more of a doctor who examines stools, and stools tell the doctor a lot about the patient. Moreover, they need cause no trouble to the doctor, for the eye and the nose will, in a moment's time, furnish more valuable information than the laboratory.

Of drugs for chronic constipation the tonic laxatives excel all others. They are cascara, senna, aloes or aloin, and rhubarb, and perhaps also phenolphthalein. Even if these drugs lie in the bowel they do not cause inflammation and their active principles if absorbed are eliminated without harm to the kidneys. As a rule too, their dose does not need to be increased but may be gradually reduced. They may be given in a single dose at night, as an aloin, belladonna and strychnine pill, a cascara pill or the fluid extract of cascara. At one time I frequently prescribed nightly doses of compound licorice powder which is a senna preparation, but found that the sulphur of this preparation sometimes makes a sulphide odor and sulphide poisoning. Many people chew a few senna leaves at bedtime. Others chop up senna with dates, figs and prunes and take a teaspoonful or two, or boil prunes and senna with water and drink it by the cupful.

But for cure rather than relief a better method though a more troublesome one to the patient, is to give these drugs in small doses throughout the day, with in addition perhaps a dose of mineral oil for softening purposes. Often enough we have had ten minims of cascara three times a day give better stools than a single dose of a dram or two at bedtime. With tonic laxatives so administered we have seen satisfactory continuance of the movements though we progressively reduced the dose of the drug till finally it was dispensed with altogether.

A rather strong and not unpalatable bowel tonic preparation is a mixture of equal parts of fluidextract of senna, aromatic fluidextract of cascara and aromatic syrup of rhubarb, one or two teaspoonfuls after each meal. Because of associated stomach acidity we have had better results in the long run from some such mixture as sodium bicarbonate ʒII, fluidextract of cascara ʒIII add rhubarb and soda mixture to make ʒIV. Dose: 2 teaspoonfuls an hour before lunch and dinner and at bedtime, i.e., at the empty period of the stomach. But it takes a long time to overcome chronic constipation and as the remedies must be continued for months they should be simple, and the doses and the prescription modified from time to time. To overcome cramps or true spasticity, the best addition to our prescription is belladonna.

A daily movement of the bowels is considered the usual desideratum, the daily excretion of a normal person on a mixed diet being a sausage an inch or more in diameter and 9 to 12 inches long. At the time of passage it should not have a highly offensive odor. But it is not *always* necessary that the bowels should be moved daily. Horace Fletcher, famed for his excessive mastication of food, came to have only about one action of the bowels a week, yet was in better health than ever before. On the other hand some patients do best on two or three movements a day.

Probably the chief factor in driving the constipated to seek relief is intestinal putrefaction with the production of toxins from the food. These toxins may produce headache, mental depression, nervous breakdown and other serious results. The effect on the disposition was noted by Molière who so long ago wrote, "A 'Yes' from a person with constipation is more disagreeable than a 'No' from one whose bowels move every day."

Mucous Colitis.—This is a poorly understood malady in which the bowel forms abnormal mucus in large quantities. In the severer forms it is regularly accompanied by intestinal putrefactive toxemia and various nervous or psychic phenomena. At times it may produce abdominal pain or even intense colic, but the disease in severe form is often present without colic. It occurs with frequency in both males and females of all ages.

The diagnosis is not always obvious and rests, 1, on the patient's history of passing slimy stools or the characteristic strings, plaques or skins of mucus; 2, on the finding of such mucus in the stools, or 3, on the recovery of the mucus by a colon irrigation. Since mucous colitis is an accompaniment of many surgical conditions it is requisite to recognize the presence of a diseased gall bladder or appendix, cancer of the bowel, a retroverted uterus or a torn and lax perineum. In the presence of any of these conditions medical treatment is futile. In nervous patients the colitis is frequently unrecognized, and a diagnosis of neurasthenia or neurosis is made. But such a diagnosis renders the outlook hopeless, for it ends the physician's investigative interest in the case.

These patients seek help not for the colitis but for persistent constipation or occasionally diarrhea, abdominal pain or distress, lack of physical energy, a falling off in business efficiency, mental depression or complete nervous breakdown. Conspicuous in some are lack of self-confidence, suggestibility and various phobias such as the dread of visitors, of riding in a train or of being alone.

A noticeable character of the disease is tiredness or fatigability, mental or physical, and a severe attack may be brought on by aggravation of this state by worry, as over money matters, a sick child, some skeleton in the closet or an approaching visit of the husband's relatives. It is characteristic that the patient regularly makes mountains outof mole-hills. Even a nagging wife may be a factor and you may have to say to her, "Madam, what your husband needs is a rest, one of you must take a vacation."

First, then, we must instruct the patient "Never overdo, never do anything too much," i.e., never do enough physically, mentally or emotionally to bring on fatigue. We try to arrange occupation, recreation and rest in proper proportions without allowing the patients to coddle themselves, and do not permit extra responsibilities such as club or church committee work, teaching Sunday School, etc. We do not allow breakfast in bed, the morning air being such that this time of day is best spent up and for part of the time out of doors, but we insist on a complete rest period after the midday meal and early to bed. As soon as the bowels, diet and daily habits are under good regulation we try to arrange a vacation whether it is a business man, a mother with family cares or an old maid daughter who is nursing an aged and infirm father. If at the outset they are too sick to carry out this plan it is seldom possible to get them well in home surroundings, therefore, we place them in the hospital under the care of a nurse where they will be under our personal supervision, where we can talk with them, encourage them and watch them, and where we can keep the family away as much as seems wise. Here we give them cold spinal douches, cold packs, cold rubbings up and down the spine, massage, hot applications to the abdomen during the rest period and other forms of physical therapeutics, as well as care of the diet and bowels and plenty of rest. We do not care to have them at the hospital without a personal nurse, for disinterested companionship is an essential of the treatment. And we do not permit them to return home until they are well relaxed. If one's local hospital is not satisfactory for this class of patient one can send them to some well-conducted sanatorium where fads do not prevail.

Whether at home or at the hospital the bowels must be looked after. We study these bowels with great care from the constipation, intestinal putrefactive toxemia and mucus points of view. While mucous colitis may be present in diarrhea cases, clinical mucous colitis is practically always accompanied by constipation. And it may be taken as an axiom that if constipation persists the patient will not get well. It may be treated by an intelligent application of the methods already spoken of.

Intestinal putrefactive toxemia is especially prevalent in severe mucous colitis, and without doubt is responsible in many instances for the neurotic manifestations and the condition of physical and mental fatigability. It is therefore to be taken seriously into consideration. For a period it may require the complete abolition from the diet of the highly putrefactive protein foods, such as flesh, eggs, peas and beans. The last contain sulphur. I am told that in Boston baked beans do not putrefy; in New York they sometimes do. Dried beans and peas are more putrefactive than green beans and peas. After the return to meat and eggs in the diet it is a good plan to have a lactofarinaceous day once a week, a day when the diet is confined to such foods as milk, cereal, bread and potato.

To dislodge the mucus, which adheres very tightly to the bowel wall we give an occasional dose of castor oil, calomel and salts, salts alone, a compound cathartic pill or compound licorice powder; and in addition use colon irrigations. Occasionally we switch to daily doses of salts or a saline water for a week or two. But as a rule salts treatment proves only temporary in its value and seldom leads to a cure. The stronger purges should not be permitted too frequently, for they are irritative and prone to be followed by a day or two of bowel exhaustion. These patients too readily acquire the purge habit.

Colon irrigations we give usually once or twice a week or occasionally, depending on the severity of the condition. Our method is to use several gallons of plain warm water by the two-tube process, using as inlet tube a catheter about 24 French and as outlet tube a rectal tube 30 French. We hang the bag low to give about 1½ feet of pressure and the water is run in very slowly. For the first gallon we place the patient on the left side and for the rest of the irrigation on the back. We like the bowels to move before the irrigation, and if they have not done so cleanse them with an enema and then wait a short time for the defecation reflexes to quiet down. We do not give irrigations to move the bowels but for the purpose of getting out something from higher up which is not brought out by defacation, and just as we lavage a stomach with water until it is clean, so do we try to lavage the colon until it is clean. True, one can fill the colon with two quarts of water, have it pass to the cecum in 2 or 3 minutes as shown by the X-rays, and have it re-expelled. But does this suffice? No, it does not. The putrefactive intestinal area is sufficiently often the lower part of the small intestine and it may be only after 5 or 6 gallons of colon washing with the patient quite relaxed that the ileocolic sphincter opens and lets down the rotten putrefying stuff that we are after. (That mucous colitis is not strictly a colon disease may be inferred from the fact that a patient of mine, whose colon was completely removed by Sir Arbuthnot Lane down to the lower part of the sigmoid flexure, has all the symptoms of mucous colitis even to the colic, and passes mucous strings as much as 18 inches in length.) Moreover, the mucus of mucous colitis may take a lot of soaking before it can be liberated from the mucous membrane to which it clings so tightly. Sometimes when our irrigation has been unsuccessful in obtaining the mucus, a brisk cathartic the same night has resulted in the passage of large quantities of mucus apparently softened by the water of the irrigation, and sometimes by foul putrefactive stuff completely missed by the 6 or 8 gallons of water employed in the irrigation. Cleaning diseased bowels is not an easy task, and the recent work of Alvarez and Freedlander would show that sidetracking is a common trick of the intestines. To normal people they gave beads with the food and found that many days and even weeks elapsed before the last beads were passed in the stools. Some of the subjects apparently normal in every way took a week to pass as much as 70 per cent of the beads.

Colon irrigations are being overdone at the present time as they were in the time of Louis XIV. It is recorded that Louis himself in the course of his life received several thousand intestinal douches and made them fashionable in the whole court circle. (Hurst). Their exploitation in the hands of the ignorant is a crying evil of the times.

Nervous Diarrhea.—What a nuisance this is to its victim. If my lady goes out to dinner or has in guests her bowels must move. If the students first class is at 9 o'clock, just at nine must he defecate, and he is late for class even if he has made every endeavor to empty the bowel by repeated visits to the toilet between six and nine. I have several lawyers who on this account have given up court cases and I knew of one man who was forced to abandon a professorial appointment because his bowels always moved just as he started his lecture even though he had left the toilet not five minutes before. These patients may find that defecation is insistent just as they are setting out to visit the doctor. One of them had to leave the elevated train five times between her home and my office.

These are cases for reassurance, explanation of the real condition and efforts to ascertain the original emotional cause. There must also be rational treatment of any real bowel trouble such as habitual constipation and mucous colitis. But they need in addition something as an emergency bowel sedative and for this we employ codeine. At the outset we give it in half grain doses to convince the patient that the remedy is effective; but we soon reduce this amount and generally end by providing ⅛ grain tablets, to be taken on special occasions only, such as a Directors meeting, an examination, a dinner party, the opera or an automobile journey.

Give these patients a simple remedy and so long as they carry it with them, many of them will never need to take it. But let them forget to take their remedy along and as soon as reminded of the fact their bowels want to move. Accessibility to a toilet also makes for tranquillity of mind and bowels while the reverse is disastrous.

Flatulence.—In *tympanites,* whether postoperative or in typhoid fever or pneumonia, the remedy we value most is pituitary by hypodermic, the dose being 1 c.c. of pituitrin, surgical, repeated if necessary every hour or two. At the same time we use enemata of soapsuds with the addition of two teaspoonfuls of essence of peppermint to the quart, hot stupes to the abdomen, a rectal tube being left in situ, and a reduction of the food to the simplest forms, such as broths, barley water, lemon or orange albumin water, peptonized milk, Kumyss, buttermilk or hydrochloric milk. The last is made by adding dilute hydrochloric acid Mxxv to one pint of water and to this adding one quart of milk, the whole being brought just to the boil.

Ordinary bowel flatulence may be due to the influence of a diseased gall bladder or appendix, to constipation or to excessive use of laxative measures which carry the food down too rapidly for proper digestion. Of the possible gas-producing foods probably the worst are the fruits and those that are sweetened, and in some people milk. Buttermilk and acidophilus milk have proven successful remedies in some cases but in others they are great producers of gas. But in normal people these foods do not cause distress, therefore our attention must be given more to what is wrong in the abdominal viscera than to the character of the food ingested. Gas pressure at night is often due to gas in the colon, though the pressure may seem to be in the epigastrium, and then the only measure of relief is an enema at bedtime and a hot water bag or electric pad to the abdomen.

Stomach flatulence is a bothersome thing. It may be due to swallowed air or in the chronic atonic stomach to fermentation in the stomach, the pylorus being closed by spasm as in ulcer and gall bladder cases, or to high general pressure and stagnation in the abdomen as in tympanites and ascites. In the acute case the immediate need is a strong carminative. In some cases it requires stomach lavage, the application of heat or mustard over the stomach, a large dose of sodium bicarbonate and peppermint and a cathartic. When chronically present or frequently repeated gas is quite likely to be a sign of a diseased gall bladder or adhesions. A good flatulence dose is half a teaspoonful of sodium bicarbonate with a teaspoonful of a mixture of equal parts of compound tincture of lavender, aromatic spirits of ammonia and spirits of chloroform. To overcome stomach or bowel atony strychnine is our best drug. To overcome air-swallowing explanation of the habit, and a derogatory comparison of the patient with horses that crib is usually all that is necessary.

Hyperacidity.—Of those who come for gastric disturbances the great majority have what is commonly known as a hyperacidity condition. It is probably a combination of gastric irritability with hypersecretion, and is often accompanied by pyloric spasm with epigastric distention. It may be due to local irritation as from irritating food, alcoholic drinks or an ulcer; it may be a reflex from a diseased gall bladder or some other inflamed viscus, or it may be a manifestation of nervous tension.

The *alcoholic drinks* and the *indiscretions in diet* present no difficult problem. *The surgical conditions* require operation.

Ulcer, though not always accompanied by hyperacidity, represents a state of irritability. Recently in a masterly presentation, Dr. Frank Smithies gave some interesting statistics which I might summarize as follows: Assuming that in the United States at present there are sixty million individuals at or past the adolescent age, 2,200,000 of them at present harbor or at some time will be affected with peptic ulcer. If all these are treated by surgery there will be an operative mortality of at least 7 per cent., i.e., 154,000 will die of the operation. Of those with only one operation there will remain a digestive morbidity in 30 per cent, or 579,000 persons. Following supposedly successful surgery, 46,000 will come to at least one secondary operation.

Were peptic ulcer treated wholly by surgery one could expect an annual operative mortality of 9,420, excluding deaths from hemorrhage. Were all ulcers treated by non-surgical procedures, the annual mortality would be 7,200. Therefore, as a cause of disability and death or as a field in preventive medicine peptic ulcer presents a problem commensurate with that of tuberculosis, cardiovascular disease, cancer or diabetes.

In considering how to handle a case of ulcer of the stomach or duodenum, the first requisite is a decision between medical and surgical treatment. In 1923 at a meeting in New York to discuss this question I was pitted against seven surgeons who for the most part differed from me, by contending that in practically all cases an ulcer called for surgery. Last year I was chosen to represent the medical side on two great occasions, at one of which Dr. Finney of Johns Hopkins, and at the other Dr. Leahy of Boston took the surgical side, and we proved to be in complete agreement. Dr. Finney said that he no longer operated for ulcer unless first a medical man, preferably a gastroenterologist, had pronounced the case a surgical one. Dr. Leahy said that in the past three years he had operated upon only 13 per cent of the ulcer cases that came to his clinic, for he had learned that in most cases competent medical treatment would leave the patient better off than surgery. Dr. Medill expressed the same sentiment several years ago. These opinions represent well the present trend of thought, and today both surgeons and physicians are in complete accord that some ulcers are best treated by medical means and other ulcers are best treated by surgical means. I might add that at the Mayo Clinic a considerable number of ulcer cases are now being treated by medical measures alone.

We are frequently told that operation should be the method of choice because of fear of hemorrhage, perforation or change to cancer in the future. But I have had more cases of hemorrhage in patients after operation than in patients undergoing medical treatment. I have never had a case of perforation in any patient while under medical treatment, though there are many cases on record of perforation not once but twice or three times in patients who had had an operation. Moreover, in many instances new ulcers have developed in duodenums and stomachs after operation, though the conditions established for the cure of ulcer had continued to be entirely satisfactory from the surgeons point of view. So surgery is not by any means a sure cure for ulcer, or a sure preventive of hemorrhage, perforation or recurrence.

As to the future development of cancer, the danger in a duodenal ulcer is practically nil; in gastric ulcer it is present in perhaps five per cent. But there is no evidence that a gastric ulcer cured by medical measures is more prone to develop cancer than an ulcer cured by surgical measures. In other words, if the ulcer is cured it is cured no matter what the means. Therefore the claim that surgery alone forestalls the development of cancer is not well founded.

Balfour stated that during a fifteen year period of operation at the Mayo Clinic cancer has been known to develop in 75 out of 1,280 cases operated upon for gastric ulcer. There were 195 deaths in all following satisfactory recovery from the operation, and he believes that many of the other 120 must also have died of cancer. These known cases developed after every type of operation and no less frequently after resection of a portion of the stomach than after gastroenterostomy with excision of the ulcer by the knife or cautery.

As there is a high mortality from ulcer operations, as the effects of unsuccessful surgery are sometimes irreparable and even disastrous, and as there is a more or less permanent digestive morbidity in 30 per cent of those operated upon I believe that we are not justified in employing surgery for the cure of ulcer for cases that promise to do well by medical treatment.

In other words, in deciding for or against surgery in ulcer cases I advise surgery only if I can honestly tell the patient that I believe that the probable dangers and disadvantages of surgery are distinctly less than the probable dangers and disadvantages of non-surgical treatment. This excludes operation in all ordinary cases of ulcer.

Surgery.—I favor operation at the outset in the perforating or penetrating ulcers, in those with repeated copious hemorrhage, and in those with obstruction. In these types medical treatment is futile or dangerous and cannot be justified. In all other cases I favor medical treatment at the outset, but I do not hesitate to recommend surgery if in spite of good medical treatment there is persistence of pain, nausea or sour stomach, there is recurrence with violence following a symptom-free period, or if I discover that the patient either because of difficult circumstances or difficult temperament cannot or will not faithfully carry out a prolonged medical scheme.

But it is not to be supposed that in recommending surgery I feel that then all will be satisfactory, otherwise I should recommend it in all cases. But surgery is merely an attempt to make the best of a bad job. Or, as Crile said, "to perform a gastro-enterostomy for an ulcer is a confession of failure, i.e., of failure to make a good stomach, just as much as amputation of a leg is a confession of failure to make a good leg."

The Medical Treatment of Ulcer.—There are four degrees of management for ulcer, under each of which patients are known to get well. They are: 1. No treatment at all, i.e., spontaneous cure; 2. The ambulatory medical treatment; 3. The bed medical treatment, and 4. The surgical treatment. I have seen a number of serious results from ambulatory treatment, so it is my practice to demand that my patients shall stay flat in bed for at least three weeks. It is my custom at the outset to use the milk, cream and egg method, beginning with peptonized milk the first few days to avoid the formation of curds. I have the patient in bed for several reasons: to give him mental and physical rest, to make the requirement of food less, to favor stomach emptying and to eliminate a gravity drag on the duodenum if it is adherent. I feed at frequent intervals, every hour if possible, in order to keep the patient's stomach in a state of contraction which favors healing, to give him enough food and to forestall hunger pains. I allow him to get up to the toilet. I do not allow any fruit whatever in the first three months except perhaps after 4 or 5 weeks a little orange juice once a day.

On the other hand, Dr. Smithies of Chicago, whose excellent gastrointestinal work is so well known, does not employ milk at first but rather thin water gruels made of rice, cream of wheat, oatmeal, sago, corn-meal, cauliflower, beans, peas and boiled onions. He also allows orange or grape-fruit as desired. At the end of two weeks he begins skimmed parboiled milk, and after three weeks he allows prune-whip, watermelon, cantaloupe, etc. He gives atropine or belladonna and no alkalies. I give no atropine or belladonna and alkalies in moderate quantities only. The Sippy cure calls for alkalies in enormous amounts. Sippy used routine nightly lavage. Smithies and I do not use routine lavage. Judging from their statistics we have about equally good results.

What then constitutes a medical cure for ulcer? Any method of treatment that will keep the patient nourished and abolish the irritability of the stomach, if such treatment is continued long enough. At the outset I will not attempt to give the arguments for my method against theirs, or for theirs against mine, but would suggest that each practitioner adopt a definite basal method, so that by experience he will come to know when it should be modified, for modified to suit each patient it needs must be.

Alkalies are much employed in ulcer cases and by many are believed to be healing, though Dragstedt did some work which suggests otherwise. He made artificial lesions in the stomachs of dogs and infected them with colon bacilli. This resulted in ulcers. In the stomachs with normal or high acidity the ulcers healed just as quickly as in the stomachs kept alkaline with frequently repeated doses of alkalies. In practice those who treat ulcer cases with small quantities of the alkalies get practically the same results as those who use alkalies in large quantities. In the latter case alkalosis has sometimes been a bad complication. But whether or not alkalies promote the healing of ulcers, they do help to give relief from the distressing symptoms which bring the patient in for treatment. Only they do not need to be given in enormous quantities or for many days.

In using alkalies it must be remembered that their action is not confined to the neutralization of acid. In fact, one cannot necessarily be substituted for another of the same antacid equivalent. Frequently a very small amount of alkali with a carminative will give as much relief as a much larger dose of alkali without the carminative; and not infrequently alkalies will give complete relief from stomach pains in conditions with gastric subacidity or even complete achylia gastrica. In spite of experimental proof that sodium bicarbonate has poor antacid value it seems to me to have given the best results. Perhaps this is because it liberates the carminative carbon dioxide gas.

In ulcer, aside from acute perforation the worst complication is *dangerous hemorrhage*. If the loss of blood is gross but not enough to produce obvious effects of hemorrhage on the patient it will usually suffice to put the patient in bed with head low, to give a hypodermic of morphine sulphate gr.¼ to promote quiet, with strychnine sulphate gr. 1/30 to give contractility to the stomach, and to administer 20 c.c. of thromboplastin solution or 2 c.c. of hemostatic serum subcutaneously to increase the coagulability of the blood to a point beyond the normal.

If the hemorrhage is accompanied by weakness, fainting, air-hunger and profound anemia these measures should be supplemented by transfusion and mechanical measures to overcome collapse. If the stomach is distended and the bleeding seems to persist lavage should be employed to empty the viscus. If the bleeding seems to have stopped lavage is contraindicated. If profuse hemorrhage, whether gastric or duodenal, recurs two or three times in as many days I should advocate transfusion followed by surgery, but it is the consensus of opinion that at the time of profuse gastric hemorrhage immediate surgery is contraindicated.

For an arbitrary period of three days following hemorrhage we allow no food or liquid by mouth, saline to allay thirst being given by rectum every 6 or 8 hours and a daily cleansing enema. The subsequent treatment is the usual medical treatment.

Distention is a common complication of ulcer and it usually means closed pylorus, a pylorospasm which shows that irritability is not overcome. It should be watched for by daily percussion of the stomach. It may be relieved by heat to the abdomen and an alkaline carminative such as sodium bicarbonate and peppermint. If persistent it calls for lavage, a cathartic and a return to the simplest diet with plenty of alkalies. If it is due to milk intolerance it demands a milk-free diet, at least for a few days. If not soon relieved it suggests the need of surgery.

In all cases the medical treatment of ulcer calls for prolonged care in the diet, and cure should not be accepted under many months. It is perhaps the failure of persistence in the treament that is the most frequent cause of failure to cure.

Nervous Tension.—But people with troubles, people that are tired and exhausted, people who face trying ordeals, people who are troubled with attacks of conscience, especially the young, may suffer as much from the empty pain three or four hours after meals and in the middle of the night as any ulcer case. Having by a proper study eliminated any local trouble, for many true ulcers are mistaken for nervous dyspepsia, your subsequent role is not so much medical as it is that of a broad-minded sympathetic human philosopher. Such patients may need nothing but recreation, diversion and reassurance. If a man likes fishing send him off to the woods, if the girl of the period feels that her mother nags her horribly arrange a visit to some friend where she will have some fun and freedom. While she is away reform the mother. Incidentally give a few rules for sensible diet, cut out the late hours, and prescribe a simple antacid medicine with such laxative action as may be necessary. "Medicine sometimes cures, it often relieves, it always consoles"; it is never without a psychic effect as well as a physical one. If the nervousness is pronounced and the sleep unsatisfactory twenty grains of bromide after the morning and evening meals will work wonders. But primarily for these patients a clear understanding of their condition is essential.

The stomach responds keenly to mental states, and mental states are much dependent on the condition of the stomach and bowels. In testing the emptying time of the stomach for different foods, Rehfuss found that 100 grams of fried chicken taken by a student just before a worrisome chemistry examination required two hours longer than usual to leave the stomach. In Cannon's roentgen ray observations with cats he found that if he annoyed a cat the motility of the stomach ceased. In our laboratory we had dogs with stomach fistulas to obtain gastric juice. If the attendant was cross with the dogs so that they would slink away and hang their tails between their legs we would obtain no gastric juice. On the contrary, if he patted a dog on the head and said "Hello, old fellow, how do you feel this morning?" the dog would wag his tail and we would get plenty of gastric juice. So I always say that to get good results you must see that your patients wag their tails. That is, while not neglecting the immediate cause of the sickness it is well to ascertain and to try and counteract the mental pang underlying. After all, one of the greatest accomplishments of the physician is to change unhappiness to happiness, inefficiency to efficiency, a bad disposition to a good one.

But most of our patients with hyperacidity symptoms do not have an ulcer, do not need sympathy and are unable to take a vacation, in which case they must be treated by simple measures while attending to their daily duties. For these a few sensible rules of living, drinking and eating must be supplemented by a prescribed diet and usually by alkaline and laxative medicines. We give them a diet that is bland, at the outset excluding such things as whole wheat bread, fruits, salads, coarse vegetables, coffee, tea and alcohol, but including the white cereals (hominy, rice and cream of wheat), white bread, toast and plain crackers, milk, cream, eggs poached or soft boiled, strained vegetable or cream soups, the plain meats, the starchy vegetables, potato, rice and macaroni, certain mashed and finely divided or strained boiled vegetables such as peas, beans, spinach, squash and carrots, and various milk and cereal desserts. If they are good milk drinkers we advise milk between meals. In addition we prescribe some such alkaline laxative mixture as we have already alluded to, for example, sodium bicarbonate ʒiii, fluid extract of cascara ʒii, and rhubarb and soda mixture to make four ounces; dose, two teaspoonfuls; or we may prescribe a powder of sodium bicarbonate and magnesia with peppermint. We always have these taken about 1½ to 1 hour before lunch and dinner and at bedtime, that is, about the end of the digestive period. It may be an awkward time of the day for the patient to take medicine, but it is the time when the stomach needs it, and alkalies after meals are prone to stimulate the stomach to a compensatory excessive secretion. In addition I may give a dose of bromide for a few days after the morning and evening meals. As a rule bitters and nux vomica are contraindicated in all hyperacidity conditions.

Ladies and gentlemen, I have said enough. I have given you some of the ideas that aid me in my practice. Other men have other ideas which are just as good and we must resist the temptation to be dogmatic. But we are all working for the same end, helping our patients. The success of a physician is not rated by the amount of money he makes but by the esteem in which he is held. For the general practitioner this esteem is based largely on what he can do for his patients, that is, on his therapeutic success, whether this is brought about by pills, by surgery or by the helping hand. Many of our digestive patients are misfits, or victims of circumstances or of an overweening and misdirected ambition, yet what a lot we can do to increase their usefulness to themselves and others. They come to us with their digestive complaints because we are physicians; but with such our familiarity with the materia medica or our skill with a knife will avail them little unless also we are possessed of human understanding and sympathy. A knowledge of the family affairs is often of a great deal more value than all the results of the most elaborate laboratory tests.

THE OFFICE TREATMENT OF GYNECOLOGIC PATIENTS*

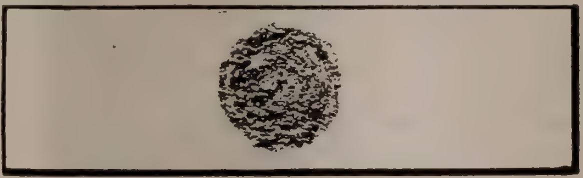
By WALTER T. DANNREUTHER, M.D., F.A.C.S., NEW YORK, N. Y.

THE gynecologic examination of a patient is a simple matter. The examination of a gynecologic patient is a complicated procedure, involving an adequate history, a complete physical inventory, and various laboratory tests, with a thorough investigation of the possible remote causes of pelvic symptoms. It is axiomatic that intelligent treatment is predicated on correct diagnosis. Now that our therapeutic resources have been so expanded that we are no longer limited to vaginal tampons, topical applications, curettage, and lapotomy, an accurate diagnosis is more than ever essential, in order that the remedial agents may be properly applied. It is quite evident that gynecological diagnosis and treatment are inevitably interwoven in any serious consideration of either phase of our clinical problems. Hence it is necessary to refer briefly to some of the important but ofttimes slighted details of the patient's examination.

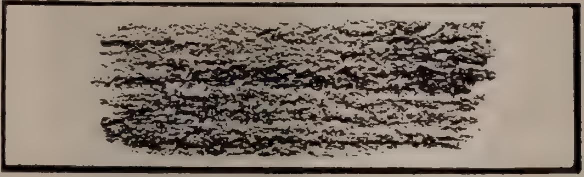
The specialist soon comes to realize that woman's innate modesty obligates the physician to observe with meticulous care every refinement of his art when subjecting a patient to inspection of the genitalia. Yet, how often are these esthetic factors disregarded? A satisfactory examination of the abdomen cannot be made without the removal or displacement of all body clothing; but the patient will not be embarrassed if the breasts and lower extremities are covered with sheets. Again, when placing the patient in the lithotomy position, undue exposure can easily be avoided by holding a sheet at the waist level as she adjusts herself on the table. Tucking the center above the suprapubic region and draping each side neatly around the thigh and leg not only conceals all areas other than the vulva, but also keeps the sheet out of the examiner's way. It would be superfluous to say that sterile rubber gloves should always be worn when making a bimanual examination, were it not for the fact that this is still far from a universal custom. The gloved hand is a silent recognition of the patient's sensibilities, as well as a protection to both patient and physician.

The first step in a pelvic examination is to pass a sterile catheter, lubricated with glycerine, and collect the urine in a sterile test tube. This provides a non-contaminated specimen for examination and insures an empty bladder, which is prerequisite for bimanual examination.

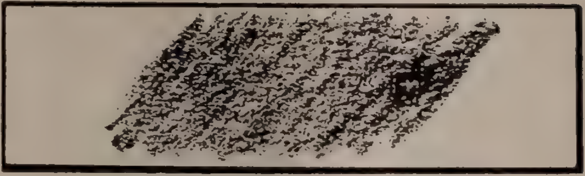
If a patient has leukorrhoea, it is advisable to take smears on glass slides. Fig. 1 represents the method I have adopted to identify the specimens easily. One smear should be taken from the urethra, one from the vagina, and one from the cervix. The smear from the urethra should precede catheterization, because the catheter is lubricated with glycerine; and the one from the vagina should be taken before the introduction of the lubricated fingers or speculum. In the microscopic examination of smears adequate attention should be accorded the component elements of the secretion. The material secured from normal mucous surfaces always contains mucous threads, mucous corpuscles, pus cells, epithelia and microorganisms. An excessive discharge is a manifestation of either hypersecretion or infection. It is therefore evident that by observing carefully the proportionate incidence of the several morphologic features, and the identification of whatever pyogenic microorganisms are present, all smears may be properly classified.



SMEAR FROM URETHRA



SMEAR FROM VAGINA



SMEAR FROM CERVIX

FIG. 1.—Differentiation of unmarked smears.

Several years ago I reviewed the records of 600 consecutive private patients and discovered that 119, or about 20 per cent., had urinary symptoms. This makes it apparent that a knowledge of cystoscopy is indispensable to the gynecologist. Even though not equipped to carry out elaborate urologic procedures, he can at least differentiate the simple cases, amenable to local treatment of the urethra and bladder, from those requiring further investigation and the attention of a urologist. The distinction is important, as no urinary symptom or symptom-complex is pathognomonic of anything. The diagnosis rests much more on the objective than the subjective evidence.

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* Read before the Keuka Lake Medical and Surgical Association, Keuka Lake, N. Y., July 14-15, 1927.

Vaginal Applications. — The most useful type of speculum for examining the vaginal walls and making topical applications thereto is the Ferguson, a plain cylindrical tube. After it has been inserted to its full extent, the vaginal walls are nicely exposed as it is slowly withdrawn. A medicated fluid may be poured in, and the medicament will follow the inner end as the instrument comes out, thereby bathing the mucous surfaces. In cases of senile vaginitis, pyroligneous acid used in this manner will quickly relieve the irritation.

The Ferguson speculum is well adapted to carrying out the Gellhorn treatment of advanced or recurrent cervical carcinoma. This consists of lubricating the speculum with a heavy coat of vaseline, placing the patient in the Trendelenburg position, gently curetting easily detached tissue masses, and pouring one ounce of acetone into the speculum, being careful that the acetone does not come in contact with the vaginal mucosa. After 20 minutes contact, the acetone is removed with pledgets of absorbent cotton and the vagina packed with iodoform gauze. Many of these patients can be kept quite free from bleeding and malodorous discharge by repeating this method of treatment occasionally.

Dusting powders are often useful in the vagina when it seems desirable to keep the surface dry. Equal parts of charcoal and iodoform are especially servicable as a deodorant. A mixture of acetanilid, one part, and boric acid, three parts, is convenient for general purposes.

Vaginal Douches. — While douches are not given in the physician's office, they are probably more often prescribed in the treatment of gynecologic patients than any other remedial agent, and must be referred to briefly. A douche is indicated for the following purposes: as a cleansing agent, to promote hyperemia, as a deodorizer, as an antiseptic, as a contraceptive, and as a medicament. Routine douches are harmful and should not be used except for a specific reason. The patient should be instructed to detach the douche nozzle after using and keep it in a 2 per cent. lysol solution. The following table enumerates the most popular therapeutic agents for vaginal douches, the strength in which each is ordinarily used, and the purpose which, in my opinion, each best fulfills.

Medicament	*Amount in 2 quarts of water*	*Function*
Sodium chloride	4 drams	promotes hyperemia
Boric acid	2 drams	cleansing agent
Bicarbonate of soda	3 drams	dissolves secretion
Lysol	1 dram	contraceptive
Potassium permanganate	5 grains	deodorant
Pyroligneous acid	3 drams	local sedative
Acriflavine	30 grains	antiseptic
Mercurochrome—220	30 grains	antiseptic
Tincture of iodine	1 dram	gonococcocide
Mercury oxycyanide	5 grains	antiluetic
Zinc sulphate	1 dram	astringent
Tannic acid	1 dram	astringent
Alum	1 dram	astringent

Vaginal Tampons and Packing. — Cotton or wool tampons, impregnated with either plain or medicated glycerine, have been used since time immemorial and still enjoy wide popularity, despite their obvious inefficiency. Although a medicament is sometimes selected for its counterirritant properties, the chief purpose of most tampon applications is to promote pelvic depletion. This can be far more satisfactorily accomplished by means of strip gauze, because of its greater capillarity. If an ounce of glycerine is poured into the vaginal vault through a speculum and the vagina packed with a strip of 2 inch gauze bandage, subsequent drainage is so free that the patient will have to wear a vulvar pad.

Topical Applications to the Cervix. — The portio of the cervix is covered with squamous epithelia; the cervical canal is lined with columnar cells. The former take the stain of iodine; the latter do not. Hence, when an eroded or ulcerated area is visible on the cervix, it should be painted with tincture of iodine. If it takes the stain, stimulating chemicals will effect a cure; if it does not, such applications are futile, and the surface must be cauterized. If an ulcerated area bleeds easily, it may be touched with a 10 per cent. solution of copper sulphate. Malignant tissue will continue to bleed notwithstanding the application, whereas prompt cessation of bleeding suggests that it is probably not malignant. However, a biopsy specimen should be taken for microscopic examination and diagnosis in all such cases.

The chief virtue of the time-honored silver nitrate solutions lies in their stimulation of squamous epithelial regeneration, and their clinical application should be restricted to those cervical lesions which take the iodine stain. The inefficiency of silver nitrate in cases of infection is due to two factors: the incidental coagulation of albuminous material, and the inaccessibility of the microorganisms, which lie deeply in the racemose glandular crypts of the cervical canal. So if chemical agents are relied upon for the eradication of infection, those endowed with the property of tissue penetration are the most servicable. Both iodine and mercurochrome have this power to a limited extent. One of my assistants at the New York Post-Graduate Hospital, Dr. Adolph Jacoby, suggested packing the cervical canal, after freeing it of secretion, with a small strip of gauze soaked in 2 per cent. mercurochrome, and then filling the vagina with iodoform gauze (Fig. 2). A few drops of mercurochrome solution are also injected directly into the structures of the portio with a dental hypodermic syringe. The gauze is left in situ for 48 hours and then removed and replaced by the physician. I have followed this plan in many cases with gratifying results.

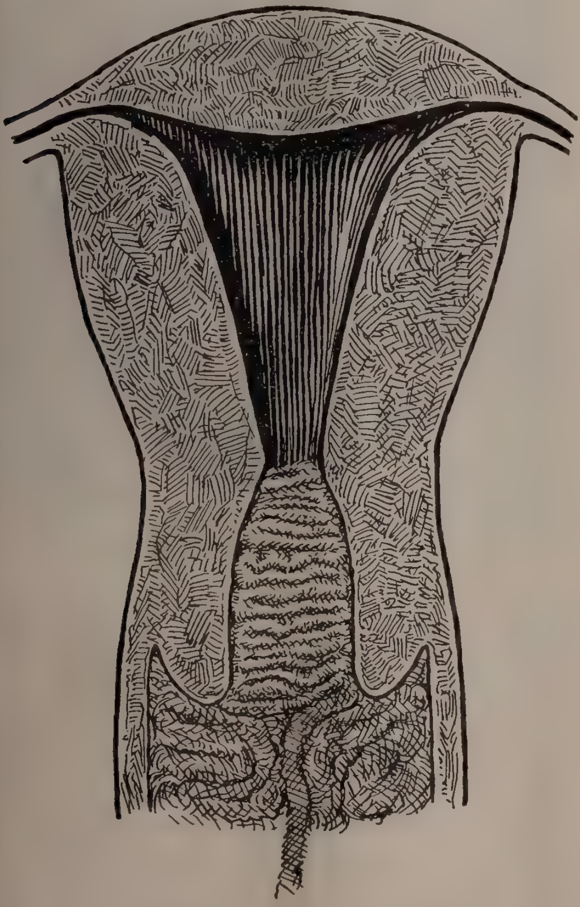

Fig. 2.—The cervical canal is packed with a strip of gauze soaked in 2 per cent mercurochrome solution, and the vagina filled with iodoform gauze.

Intracervical Galvanism. — The use of the galvanic current in the treatment of pelvic diseases was advocated by Apostoli as long ago as 1888. Unfortunately, this therapeutic innovation, like most new procedures, was misused, abused and misapplied, so that in the course of time it became of little more than historic interest. Yet, if one recalls that the negative pole of the galvanic current, applied to a muscle covered with a mucous surface, promotes glandular secretion, relaxes muscle fibres, and stimulates circulatory activity, its possibilities in cases of cervical stenosis, anteflexion, and uterine hypoplasia are apparent. The negative pole is connected to a copper cervical electrode with a long insulated shaft, and the positive pole to a felt covered flat electrode placed over the suprapubic region. Using 6 to 12 milliamperes of current and increasing the size of the electrodes from time to time, the cervix can be gradually and painlessly dilated. There is nothing that can be accomplished by forcible dilatation under anesthesia that cannot be done as well and with more permanent results in this way. I have used this method (often in conjunction with organotherapy) in cases of obstructive dysmenorrhoea and amenorrhoea due to hypoplasia for 20 years with the utmost satisfaction. Not infrequently pyogenic microorganisms can be found in the secretion after one of these applications when previously they could not be discovered.

Cauterization of the Cervix.—Leukorrhoea is a symptom and not a disease. It is caused by constitutional disturbances, pathologic changes in the cervix uteri, and abnormal alterations elsewhere in the pelvic organs. In adults leukorrhoea is usually an expression of endocervical hypersecretion or infection. Until a few years ago, endocervicitis was a constant nuisance to the general practitioner, a serious problem for the gynecologist, and an excuse for much indiscriminate and useless curetting. Parenthetically, it is well to emphasize that Cullen and others have demonstrated beyond question that endometritis rarely exists and that leukorrhoea usually originates below the internal os. All cervical lesions should have immediate attention, because of the vicious circle whereby a simple pathologic condition may be converted into a serious one if neglected (Fig. 3). In cases of acute cervicitis, all instrumentation and active treatment should be avoided. Local applications not only are of no avail, but they may even intensify the symptoms. Chronic endocervicitis, on the other hand, requires local treatment. It can be cured by (1) the electric cautery; (2) a Sturmdorff tracheloplasty, or (3) amputation of the cervix. For the majority of cases cauterization suffices. It can be used in the physician's office without anesthesia.

A small wire tip should be selected and applied superficially. One must not be too ambitious to do too much at one sitting, and the treatment should not be repeated in less than ten days. Before the cauterization, excessive mucous must be wiped away. The cautery will operate better in a dry field, because the small tip loses its heat when in contact with moisture. In cases of ectropion, three or four strokes are made on both the anterior and posterior lips in alignment with the cervical canal (Fig. 4). In most instances it will be necessary to repeat the application a few times and healing will not be complete until several weeks have passed (Fig. 5). When large numbers of Nabothian cysts are present (Fig. 6). they may be punctured and sterilized simultaneously by plunging the cautery tip directly into them (Fig. 7). The glands lining the cervical canal can be destroyed by cautious applications within the canal. When an endocervicitis is so extensive that the entire portio is involved, the cautery strokes should radiate from the external os (Fig. 8). All cases that resist cauterization or that are complicated by extensive ulceration should be treated surgically.

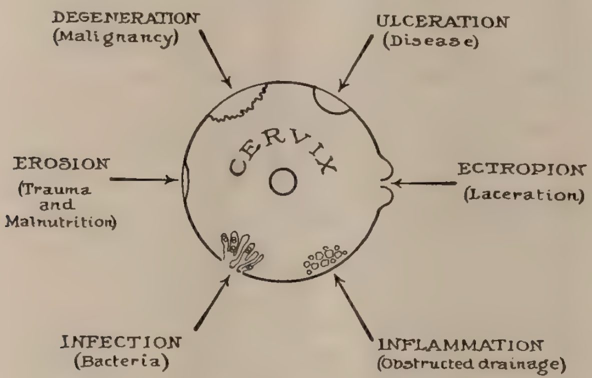

FIG. 3.—The vicious circle of cervical lesions.

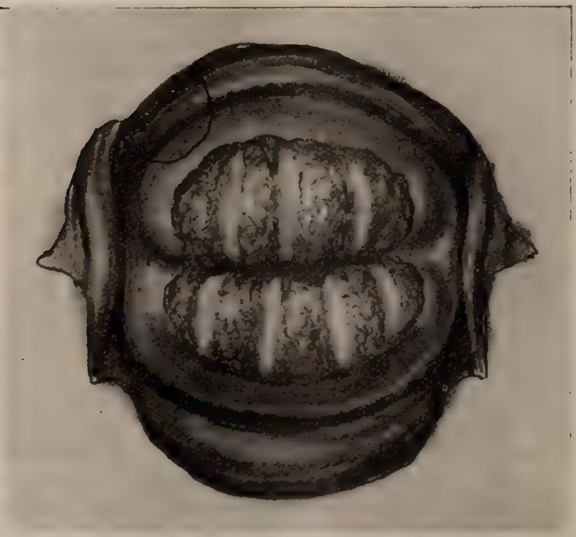

FIG. 4.—Cauterization of endocervicitis with ectropion.

Diathermy. — The therapeutic value of diathermy, more correctly called bipolar endothermy, in gynecologic diseases has been the subject of much recent controversy. Diathermy is usually considered as either surgical or medical; surgical when tissue destruction is the objective, and medical when relatively low degrees of heat are projected and concentrated in a diseased area. One of my staff members, Dr. Mortimer N. Hyams, has made painstaking clinical studies of a large number of patients and has arrived at the following conclusions: Surgical diathermy is an ideal method of treatment for vulvar condylomata, urethral caruncles, infections of Skene's glands, and cervical polypi; the results from medical diathermy have been extremely gratifying in cases of acute uncomplicated urethritis, chronic adnexitis and inflammatory involvements of the utero-sacral ligaments; it will relieve about 50 per cent of cases of obstructive dysmenorrhoea. With the available armamentarium, it cannot destroy pyogenic microorganisms in the deep crypts of the cervical glands, cure gonorrhoeal endocervicitis, and restore the cervix to normal.

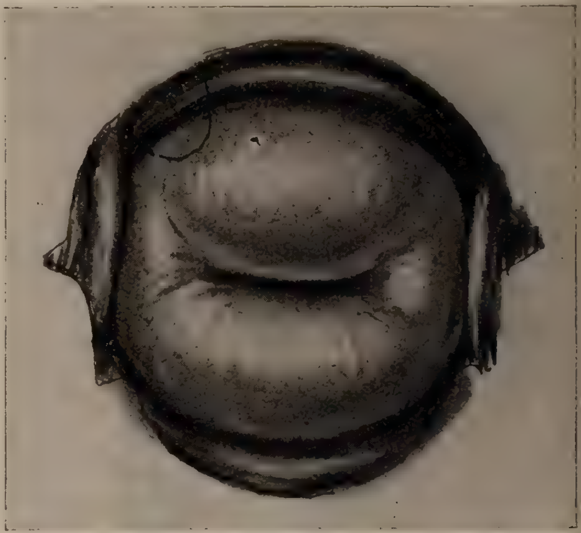

FIG. 5.—Cervix healed after cauterization.

Intrauterine Irrigations. — Although intrauterine irrigations were popular twenty-five years ago, this method of treatment is now practically obsolete. Yet, in cases of spontaneous uninfected abortion that continue to bleed moderately, a few irrigations of the uterine cavity with an iodine solution (1 dram of the tincture to one quart of water) will often empty the uterus completely without curettage, particularly if the patient is given a daily intramuscular injection of pituitrin. These irrigations should never be given early in the treatment of abortion or in the presence of infection.

Pessaries. — Stem pessaries are designed to maintain cervical dilatation. In occasional cases of acute anteflexion with obstructive dysmenorrhoea, in which repeated office treatments seem undesirable because of the patient's youth and virginity, forcible dilatation and the insertion of a stem are of some therapeutic value. But in general, it is bad practice to irritate the cervical canal by the prolonged contact of a foreign body, especially when the same result can be achieved otherwise without trauma. The cervix can be more easily and gradually dilated with the galvanic current.

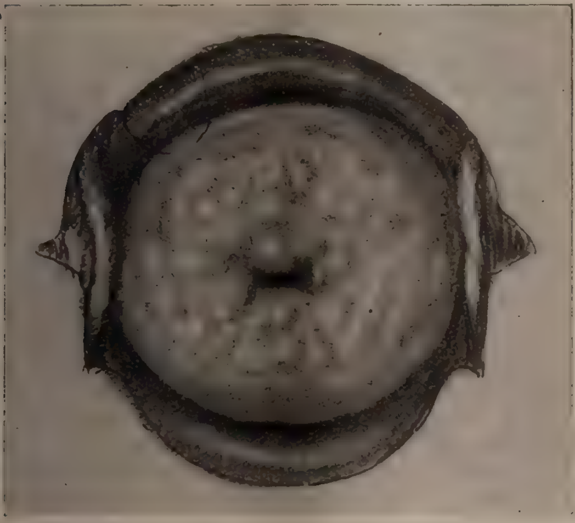

FIG. 6.—Multiple Nabothian cysts.

The Gehrung pessary for cystocele, the cup pessary for prolapse, and other special contrivances are suited to exceptional cases only and need not be considered here.

Pessaries adapted to the treatment of retrodisplacements of the uterus are of great value in many cases and deserve more extensive discussion. It must be admitted that they promise no hope of permanent cure unless the displacement is discovered within six months of its occurrence. It is therefore advisable to insist that all patients return for examination six weeks after parturition or abortion. That is the ideal time to make the diagnosis, because if the uterus is replaced and maintained in position by a pessary, involution is promoted and a cure may be effected. In cases of long standing, the patient gets relief only so long as the pessary is worn. Incidentally, it also serves the purpose of demonstrating that maintenance of the normal uterine position will relieve the patient's symptoms.

Pre-Requisites for the Application of a Pessary.—Bladder empty; uterus replacable; uterus replaced; no extensive uterine prolapse; no extensive cystocele; preliminary estimation of the size of the vagina.

The uterus must not only be mobile, but must be restored to its normal position by the physician. The purpose of a pessary is not to correct a retrodisplacement, but only to maintain normal uterine poise after it has been replaced. If there is a pronounced prolapse or a large cystocele, the forcible downward pressure of the vaginal walls may be sufficient to push the pessary out through the vaginal orifice.

There are four types of hard rubber pessaries used in the treatment of mobile retroversion and retroflexion. The most practical for the largest number of cases is the one designed by Albert Smith. The only difference between the Hodge and Smith pessaries is that the Hodge has a wider anterior bar, so that it is better adapted to cases with a somewhat extensive perineal laceration. The Thomas pessary is a Smith pessary modified by a thicker posterior bar, to take up the slack when the posterior fornix is unusually capacious. Ring pessaries are servicable in the presence of moderate cystocele or beginning prolapse.

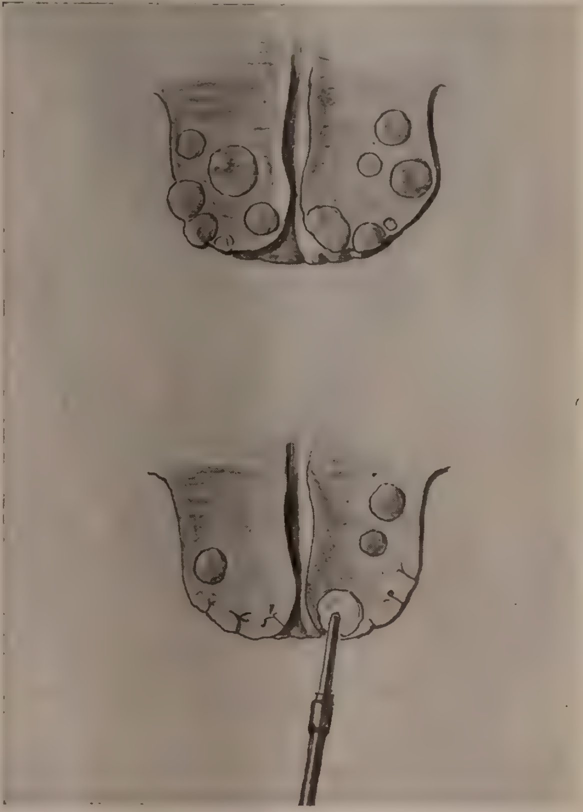

FIG. 7.—Cauterization of Nabothian cysts.

Before selecting a pessary for an individual case, the configuration, width and length of the vagina should be estimated. The proper length is determined by inserting the fingers into the vagina, just as though measuring the diagonal conjugate diameter of the pelvis. The middle finger is pushed well up into the posterior fornix, and the distance to the pubic arch marked by placing a little piece of tape on the finger under the arch. The approximate width is estimated by separating the fingers in the vagina before their withdrawal. By palpating the pubic arch and the capacity of the posterior fornix, after a little experience it is easy to select a pessary of the size and shape that the patient needs. A properly fitting pessary should not be felt by the patient or cause her any annoyance, nor interfere with douching or coitus. The patient should be directed to return for examination after three days, to make sure that the pessary fits well. Thereafter it should be removed, cleansed, and replaced every six weeks. It is always better to risk using too small rather than too large a pessary. The worst that can happen to an undersized pessary is that it will slip out of position or out of the vagina. On the other hand, one that is too large exerts undue pressure and causes local soreness. This is not only discouraging to the patient, but precludes further use of a similar appliance until all the soreness has disappeared. Naturally, if a pessary is inserted in the presence of parametrial or adnexal inflammation, the pressure of the foreign body will cause pain. So if complications exist, they must be treated and disposed of before the pessary is used.

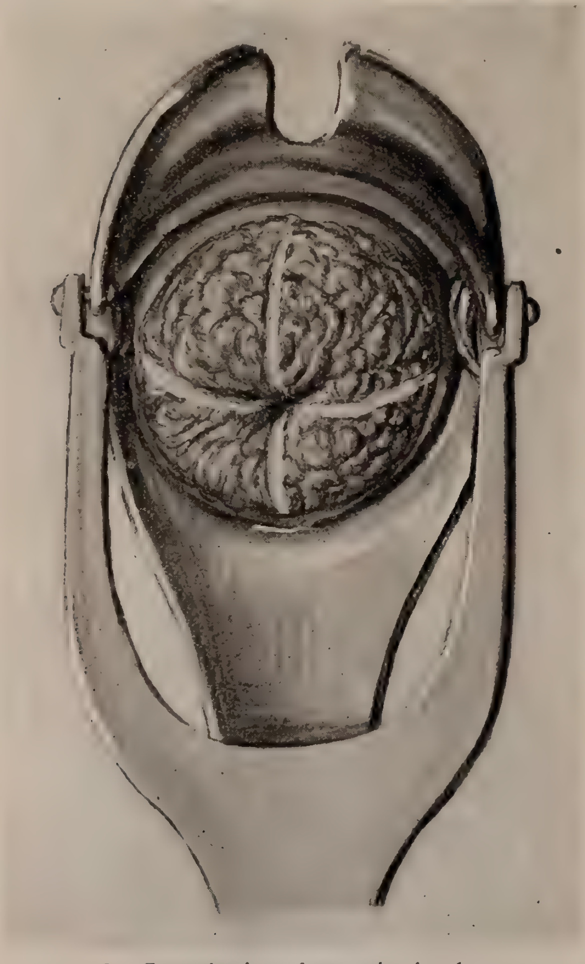

Fig. 8.—Cauterization of extensive involvement of the portio.

Having replaced the uterus in its normal position, the only thing necessary to keep it there is some mechanical contrivance to hold the cervix back. The fundus is bound to stay forward, because it cannot slip backward without the cervix coming forward. The support might be a straight stick or anything else that would hold the cervix in its proper position (Fig. 9). By keeping the two fixed points, the pubic arch and the posterior vaginal fornix, separated by a rigid bar, the cervix can move up and down through a small arc, but cannot come any nearer the vaginal orifice. If a straight stick were used, however, it would push sharply into the posterior fornix and make the patient very uncomfortable, so the end of the stick is bent upward to conform with the outline of the fornix and put the utero-sacral ligaments on the stretch (Fig. 10). Having thus provided for the curve of the posterior fornix, it becomes necessary to make another curve in the anterior end, to allow for the upward pressure of the perineal structures (Fig. 11). This long upward curve permits the pessary to lie up out of the way in the narrow part of the pubic arch. Since the vagina is a wide canal, a single thin stick would not keep the walls on the stretch, so it becomes necessary to place another stick parallel with the first and connect the two anteriorly and posteriorly (Fig. 12). The posterior bar is wider because the fornix is roomy; the anterior bar narrower, so that it can lie well up behind the pubic arch. The little transverse notch and downward dip at the anterior end is to prevent undue pressure on the overlying urethra.

I have stressed the details of the principles upon which a pessary is designed because I have often seen pessaries misapplied and misfitted. Personal observations justify me in assuming that there are some men applying pessaries who do not thoroughly understand what these instruments are supposed to do, why they are constructed as they are, and how they should be adapted to the patient. Every curve in the outline of a pessary is put there for a definite reason, and if the reasons are appreciated, there will be no difficulty in fitting a particular patient.

Having excluded parametritic, perimetritic, and adnexal inflammation, catheterized the bladder, replaced the uterus bimanually, and selected the proper pessary, the patient's knees and labia should be widely separated. The pessary is then introduced obliquely, the fingers making firm pressure posteriorly as the instrument passes the introitus. The pessary is then rotated to the transverse position and slid along the palmar surface of the fingers. As the posterior bar approaches the cervix, the fingers are turned (180°) lifted above the posterior bar, and push the bar under the cervix. The anterior end will then have disappeared behind the pubic arch. Now the fundus cannot retrovert, because there is no fulcrum on which the uterus can turn. It is advisable to insert the pessary without forewarning the patient.

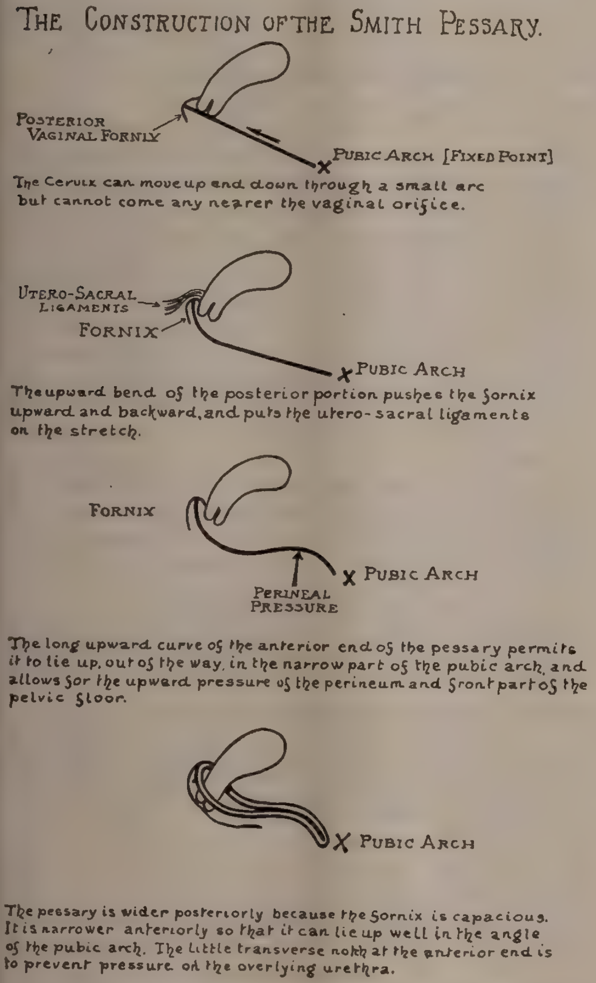
The Construction of the Smith Pessary.
Posterior Vaginal Fornix
Pubic Arch [Fixed Point]
The Cervix can move up and down through a small arc but cannot come any nearer the vaginal orifice.
Utero-Sacral Ligaments
Fornix
Pubic Arch
The upward bend of the posterior portion pushes the fornix upward and backward, and puts the utero-sacral ligaments on the stretch.
Fornix
Perineal Pressure
Pubic Arch
The long upward curve of the anterior end of the pessary permits it to lie up, out of the way, in the narrow part of the pubic arch, and allows for the upward pressure of the perineum and front part of the pelvic floor.
Pubic Arch
The pessary is wider posteriorly because the fornix is capacious. It is narrower anteriorly so that it can lie up well in the angle of the pubic arch. The little transverse notch at the anterior end is to prevent pressure on the overlying urethra.

Fig. 9.—Construction of the Smith pessary; the cervix can move up and down through a small arc, but cannot come any nearer the vaginal orifice.

Incision and Drainage of Abscesses.—Three types of circumscribed suppurative accumulations frequently present themselves: pelvic abscess, suburethral abscess, and abscesses of Bartholin's gland. They are mentioned chiefly to emphasize the fact that they are all best attacked with the patient under anesthesia.

A pelvic abscess is opened by drawing down the cervix, pushing a pair of sharp pointed scissors into the abscess cavity close to the uterus, and spreading the blades of the scissors widely.

A suburethral abscess found in the anterior vaginal wall should be excised rather than incised. Otherwise a fistula may result.

It is always a temptation to incise an abscess of Bartholin's gland over the point of greatest softening, which is usually on the vaginal side of the tumor. But if this is done, the dislocated duct may be severed and either a sinus or recurrence will follow. Complete extirpation is much better treatment than incision and drainage, but should never be attempted except under general anesthesia. The dissection invariably opens veins in the vaginal plexus, and several vessels deep in the wound must be tied. If, however, incision and drainage are selected, the incision should be placed well out on the cutaneous surface of the tumor.

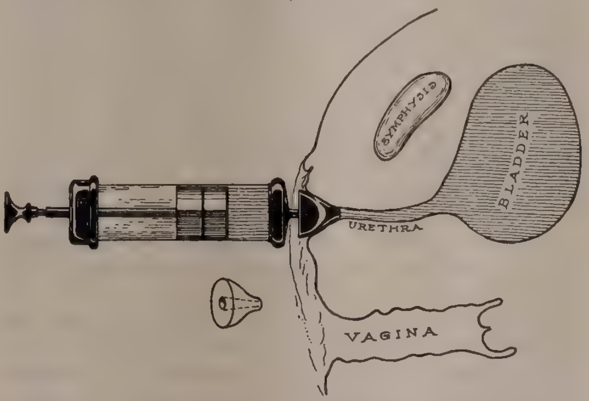

Fig. 10.—Method of introducing solutions into the urethra and bladder without instrumentation.

Urethral Applications.—While medicaments may be applied to the urethra by syringe injections, topical applications through a Kelly endoscope are more satisfactory. I have found a solution of 5 grains of iodine crystals in mineral oil useful. The oily medium insures a longer contact than is the case when watery solutions are used. If one desires to apply a solution to the urethra or bladder without instrumentation, a blunt metal tip fitted to a record syringe serves the purpose well (Fig. 10).

Intravesical Instillations.—These are used in all varieties of cystitis. The following table indicates the solutions which have proved most useful for the several types of inflammation in my own experience:

Inflammation: Silver nitrate, 1-10,000 to 1-5.000; carbolic acid, 0.5% to 2.0%.
Hemorrhage: Adrenalin chloride, 1-10,000; alum, 0.5% to 2.0%.
Ulceration: Potassium permanganate, 1-7,500 to 1-3,500.
Tuberculosis: Oil of cajeput in olive oil, 20%; carbolic acid, 0.5% to 2.0%.
Gonorrhea: Tincture of iodine ʒi to 1 quart; mercurochrome-220, 1% to 2%.
Syphilis: Oxycyanide of mercury, 1-10,000 to 1-5,000.

Elaborate exposition of the topic I have represented would almost involve the condensation of a text book. Hence, it has been impossible for me to accord the several therapeutic measures mentioned the attention they deserve. The necessity for abbreviation has also precluded any reference to internal medication, hydrotherapy, organotherapy, radiotherapy, local anesthesia, etc., all of which are important therapeutic measures.

IDENTICAL TWINS AND THE PROBLEM OF HEREDITY

BY FRANCIS PATTON TWINEM, M.D., NEW YORK, N. Y.

IN recent years there has been much discussion of the inheritability of various diseases. The number of diseases classed as hereditary has been diminishing until at present only a few, such as hemophilia and color blindness, are so classed. To be hereditary in a true genetical sense a disease must be determined by the actual chromosomal content of germ cells. In man, many of the small group of inheritable diseases are "sex-linked." The two diseases mentioned above, for example, belong in this class.

There are many diseases which appear to be hereditary but which are not so in actual fact. That these diseases appear to be inherited may be due to: 1, intra-uterine infection; 2, close contact with parents in infancy and childhood; 3, inheritance of a constitution which makes the individual particularly susceptible to the development of certain diseases. It is number 3 which interests us most at present.

Our interest in this matter was aroused about a year ago by the study of a patient, Mrs. S., in the Harper Hospital, Detroit. Mrs. S. was an identical twin, and both she and her sister, Mrs. R., had had diabetes mellitus for several years. The idea occurred at that time that the study of medical histories of a number of pairs of identical twins would be of value in that it would throw some light upon the nature of the inheritance of disease.

According to the best authorities identical twins are of monozygotic origin, meaning that both were derived from one ovum. Consequently they begin life with the same endowment from the standpoint of heredity. As H. H. Newman has said, the matter of somatic segregation must be borne in mind, that is, whether, in regard to any particular factor, the earliest cleavages were differential or equational. (H. H. Newman, The Biology of Twins, U. of Chicago Press.) The members of a pair of identical twins should inherit the same general susceptibility to disease and, if there be such a thing, the same organic susceptibility to disease. Parenthetically, it may be stated here that about one-half of same-sexed human twins or one quarter of all human twins are monozygotic. Now there is no absolute method of determining whether a given pair of human twins is monozygotic, but we may consider that, if the members of a pair of twins have passed the age of adolescence and have always been so nearly alike physically and mentally that they could be distinguished only with difficulty, we are dealing with twins of monozygotic origin, i.e., the twins are duplicate or identical.

A study was then made of nine pairs of identical twins with particular reference to their medical histories. The main facts in regard to each pair of twins follow:

1. J. S. and E. S. Female. Aged 66.
   General health of both always good. Both have had diptheria and marked hypertension.
2. W. L. and J. L. Male. Age of W. L., 49
   J. L. died of lobar pneumonia at the age of 47. W. L. had lobar pneumonia at the age of 42. Otherwise the general health of both was good.
3. H. A. and A. A. Female. Age of H. A., 17. A. A. died at the age of 16 years. At autopsy a large ovarian cyst of unknown pathology was found. H. A. had an ovarian cyst of about the same size on the same side.
4. S. B. and Z. B. Female. Aged 42.
   General health of both always good. Both had scarlet fever and chicken pox in childhood. Z. B. had appendicitis at the age of 18.
5. R. S. B. and R. B. B. Male. Aged 28.
   General health of both always good Both had measles, mumps, whooping cough and chicken pox in childhood.
   Both of these young men are excellent runners, each one having a record of approximately 9:26 for the two-mile run.
6. V. R. and E. R. Female. Aged 38.

Both had measles, mumps and whooping cough in childhood. V. R. had appendicitis at the age of 26.

7. W. O. and Wm. O. Male. Aged 37.
General health of both always good. Both had measles, mumps, whooping cough and chicken pox in childhood.
8. R. B. and L. B. Male. Aged 30.
General health of both always good. Both have had whooping cough, measles and mumps.
9. Mrs. S. and Mrs. R. Aged 27.
Both had measles, whooping cough and chicken pox. Both have had diabetes mellitus for several years.

A study of the fingerprints of Mrs. S. and Mrs. R. was made by C. C. Carmody, the Bertillon expert of the Detroit Police Dept. The general patterns were found to be the same but there were definite differences in detail.

In all of these cases the twins were strikingly alike in temperament and general ability.

It may be of interest to note in passing that in the nine families represented in this series there have been seventeen sets of twins in the last three generations, a figure much higher than the normal expectation.

There are many references in the literature to cases of twins having the same diseases or physical characteristics. Francis Galton found that in some of the thirty-five cases he studied that not a single point of difference could be noted. Several pairs showed the same peculiarities in their fingers. Very frequently both became ill at the same time with the same diseases, not necessarily of a contagious nature.

Ahlfeld[1] collected seven cases of similar malformations in duplicate twins.

Miller,[2] in a study of thirty cases of duplicate twins found that there were twenty-three cases of similar or analogous malformations.

A case is reported of diphtheria in female twins,[3] nine years old, in both of whom serum sickness and ocular paralysis appeared simultaneously. The authors conclude that the coincidence of infection in certain twins proves identical reactions to infection.

Galton mentions twins who were clerks by occupation, both of whom died of Bright's Disease, one seven months after the other.

Williams[4] says that he has seen Hodgkin's Disease in twin boys four years old and refers to the Lawford-Collins-Silcock case of melanotic sarcoma of the choroid in the left eyes of twin sisters. Several cases of Mongolian idiocy[5] in both of twins have been described. K. Hale[6] describes a case of congenital dislocation of the hips in identical twins. G. H. Parker[7] mentions a case of dementia precox in both of identical twins. Freidreich's ataxia in twin boys was observed by J. H. Hess.[8] A. D. Davis has described tripartite cleft palate and double hare-lip in identical twins.[9] Twins, both of whom had ichthyosis, Graefe's symptom, acromegaly and disturbances of growth are mentioned by Moller.[10] Oudendal cites a case of cysts of the lung in twin sisters.[11]

Carcinoma occurs but rarely in identical twins. Warthin, Wolbach, Wells, F. C. Wood, Karsner and Greenough have never seen a case. Warthin says that only three such cases have ever been reported in the literature and Bauer makes the same statement. It is significant that in every recorded case in which carcinoma has occurred in one identical twin it has occurred in the other twin as well; and furthermore, the carcinoma has been of the same type and has involved the same part of the body in the one twin as in the other. H. Burkard[12] reports that twin sisters, twenty-one years old, developed each a fibroadenoma in the left breast at almost the same time and in the same quadrant. The structure of the tumors was the same and both were removed at the same time. H. G. Wells states that he knows of a case of twin brothers, both of whom have malignant tumors of the testicle.[13]

These cases seem to give quite definite evidence that there is frequently inherited a general susceptibility to disease making the individual having such an inherited susceptibility much more likely to develop, under a favoring environment, the disease in question than is the average individual without such an hereditary susceptibility. Further, not only can a general susceptibility to a given disease be inherited but it appears that there is also an inheritable specific organic susceptibility. Thus, if cancer be the disease in question, then parents can transmit to their offspring not only a tendency to develop cancer under favoring conditions, but the probability that, if cancer does occur in the offspring, it will affect the same part of the body that it involved in the forebears.

This discussion has purposely been made very brief. It is the author's intention to develop the subject more fully at a later date.

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THE ROLE OF THE DARK FIELD IN THE DIAGNOSIS OF SYPHILIS, WITH REPORT OF 255 POSITIVE CASES[*][†]

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From the Department of Dermatology and Syphilology, U. S. Marine Hospital, No. 70. Published with the permission of the Surgeon General, U. S. Public Health Service

THE importance of a prompt diagnosis of syphilis in any of its stages cannot be too strongly emphasized. The necessity for a quick diagnosis is in direct proportion to the duration of the disease, yet even in the later stages where important structures are threatened, a delay of a few hours may make all the difference between the preservation of a useful life or a resulting utter failure. As Stokes in his recent work so ably puts it, "the saving of a day increases the physician's lead on the disease to an unknown extent."

Without a doubt the various blood reactions will, for a long time to come, remain the chief reliance of the physician for the confirmation of the diagnosis of syphilis in its later stages and for the discovery of the latent and asymptomatic cases. Here we attempt to check the ravages of a disease already established and to eradicate it if possible. The conditions are entirely different when we are called upon to treat a case at its beginning. Here the possibility of eradicating the disease before it has done irreparable damage is great, and we should be urged by every sense of duty and humanity to use every reliable means at our disposal to diagnose accurately the initial lesion before the serum reactions have changed from negative to positive.

Fortunately we have at least one method which is fairly easy and reasonably reliable. It is the examination of the serum obtained from a suspected sore, a swollen gland, or a suspicious eruption by means of the dark field. The method is not infalible, and has its limitations, just as the examinations for the tubercle bacillus and many other organisms have their limitations. As with them, it is necessary to obtain a satisfactory specimen for examination, and a negative result is not conclusive; yet both these handicaps can be materially reduced by conscientious care and a very moderate amount of skill and experience. We can hope to find the spirochetae in open lesion even when the disease is several years old, and we can reasonably expect to find them in the primary and the early secondary lesions when there has been no recent local antiseptic treatment or constitutional treatment with arsphenamin or bismuth.

It is to emphasize the importance of diagnosing the disease before the serum reactions have changed that this article has been written, and it is to that point that we wish to invite your attenion. A host of writers, among whom should be mentioned Howard Fox, Fordyce, Stokes, Klauder, Dourmaskin, Rosen, Abramowitz, and others, have repeatedly called attention to the importance of the dark field in the diagnosis of syphilis. Fordyce[*] states, that "in primary syphilis when the spirochetes are demonstrated and the Wassermann reaction is negative, it is possible to cure syphilis with salvarsan alone." In this connection we wish to cite as possible cures, but subject to future developments, thirty-one cases of our own.

It is not the purpose of this paper to go into the technique of the dark field examination, as it has been minutely described in many excellent text-books and can be easily and quickly mastered under the direction of a competent and experienced teacher.

Before taking up the analysis of our result at Marine Hospital No. 70, it would be well to give an idea of the class of patients we treat and the routine treatment we have been obliged to adopt. The patients are practically all sailors, here today and gone tomorrow. With the help of the Social Service, we can usually induce them to take one complete course, sometimes two and even three. With the increasing prestige of the hospital and the resulting confidence of the patients, this follow-up of the treatment by the patients themselves is becoming more and more satisfactory every day. On the other hand, the establishment of a definite follow-up system that would function satisfactorily or would pay in results seems to be an impossibility. We sent out fifty follow-up letters to as many of our dark-field patients, with the result that not one single patient replied or showed up for examination. Almost all of the letters were returned by the post office department as "undelivered," showing quite conclusively the futility of any effort to keep a systematic check upon results. It is for that reason this report is lacking in a complete and scientific ending of most of the cases. As a rule, it is those patients who have some reason to suspect that the disease is still active whom we have the chance to further examine. I also think it is quite evident that any attempt to direct the treatment of our patients after leaving the hospital would be futile and doomed to failure in fully 70 per cent of the cases. We have tried in the past and are trying at present, by means of mercurial inunctions given in the interval between the arsenical, to follow out the recommendation of the Public Health Service as to continuous treatment; but I have never been able to convince myself that our instructions are faithfully carried out.

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[*] Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

[†] Diagnosis and General Treatment of Syphilis, by John A. Fordyce, M.D., The American Journal of the Medical Sciences, Oct., 1916, Vol. 152, pp. 469-489.

Our treatment has changed somewhat as years have passed. Beginning in 1921 with a series of six injections of arsphenamin and six of mercury, each once a week, we have increased the number of injections as follows: We now give arsphenamin or neo-arsphenamin twice a week and salicylate of mercury once a week for six weeks; this constitutes a complete arsenical course, and in early cases is repeated twice, when possible, regardless of the reaction of the blood. The interval between courses is six weeks, thus giving the patients a chance to take a voyage and earn enough money to keep them through the next course.

The dosage is the same for both the arsenicals, namely, after the initial dose of 0.25 grams, 0.40 grams are given on Monday and 0.30 grams on Friday. On Wednesday, the patients each receive one grain of salicylate of mercury. This is the method attempted in all cases of less duration than a year. In the later stages, we are guided by the results obtained and the reactions of the blood.

During the period covered by this report, two thousand six hundred and fifty-nine cases came under treatment; and one thousand seven hundred and thirty-nine patients had open lesions which were subjected to one or more dark-field examinations. Some of the patients with negative dark-fields subsequently proved to be cases of syphilis, and some did not. With these, we are not at present concerned. Every genital sore and many extra-genital ones were given a dark-field examination. Of these examinations, two hundred and fifty-five or 15 per cent of the total number of patients examined by this method, gave positive results. As many as three examinations were made on as many successive days of a single case before a positive result was obtained; with a total of two hundred and eighty-one in all for the two hundred and fifty-five patients.

Positive results were obtained from extragenital lesions on the back of the neck, lips, eyelid, face, trunk, tongue, mucous patches in mouth, on tonsils, and about anus. With the exception of those on the lip and the one on the back of the neck, these were practically all secondary manifestations, and all of them gave a positive Wassermann test of the blood.

The genital lesions, as would be expected, were much more numerous. There were one hundred and ninety-six on the penis; eleven within the urethra or at the meatus; two on the scrotum, and one on the mons pubis. These were practically all primary lesions, and one hundred and twenty-one, or 50 per cent, gave a negative Wassermann reaction.

Seventy-six in all, or 30 per cent of the total, presented themselves after the completion of the first course for further examination and treatment. Of these, seventy appeared in the first six months.

I will not bore you with a detailed analysis of the whole two hundred and fifty-five cases, but will proceed at once to the consideration of those patients who returned and about whom we therefore have some subsequent data. The accompanying table will show at a glance how these seventy-six cases have been classified.

Table of Wassermann Tests Made After Treatment

	1st 6 Mos.	2nd 6 Mos.	2nd Year	3rd Year	4th Year	5th Year
Wassermann test, positive at start, became negative..	28	8	11	2	0	0
Wassermann test, positive at start, remained positive	10	11	1	1	0	0
Wassermann test, negative at start, became positive..	2	1	1	1	0	0
Wassermann test, negative at start, remained negative throughout	30	12	7	3	1	1

Note: Six patients presented themselves, for the first time after treatment, in the second six months or later. This accounts for an apparent discrepancy in the text.

Forty of these return cases had had positive blood Wassermann tests and positive dark-fields before treatment was begun. By the end of the first or second six months the blood reaction of twenty-nine had become negative, while eleven remained positive. The twenty-nine cases showed varying results as time went on and they received or did not accept further treatment. In some, the reaction of the blood became negative and, as far as we know, remained so. In others, the blood reaction would at one time be negative and at others positive, following the usual course of well established secondary syphilis.

Thirty-three of these seventy-six return cases had had negative blood Wassermann tests but positive dark-fields before treatment was begun. Of these, thirty-one, or 94 per cent, still had negative blood reactions at the end of the first six months. Eleven returned at the end of the second six months, and so on up to the one who has shown up regularly year after year.

In all these cases the blood reaction has remained constantly negative up to and including the last examination we have been able to make.

The blood reaction of two of the thirty-three cases just mentioned was positive at the end of the first six months. Both of these cases are instructive. The first applied for treatment in the fall of the year. He presented at that time a typical chancre situated on the penis. The dark-field examination showed spirochetae in abundance, while the reaction of the blood was negative. He was told that he had syphilis and that he would require six weeks of treatment at once. He was also given the initial injection of mercury. Unfortunately, as subsequently transpired, he was also told of the negative reaction of the blood, hoping, of course, to reassure him. The result of this little piece of humanity and sympathy was disastrous. We saw nothing more of him for three months, when he returned presenting a profuse roseola, enlarged glands, and a four plus Wassermann reaction. The chancre had healed and there was no sign or history of any other genital or extra-genital sore. This man's blood, after two years, still gives a four plus Wassermann test, in spite of three intensive courses of treatment. We have had two other similar cases since this report was begun with this difference, that they have responded better to treatment.

The second case received several injections of arsphenamin and mercury, but quit early in the course. He returned within the first six months for a blood test. This proved to be four plus, but we have seen nothing of him since he received the report and we know nothing of his subsequent history.

CONCLUSIONS

That every initial lesion does not present the appearance of a typical Hunterian chancre and that the dark-field will bring to light many cases of syphilis that otherwise would be overlooked until too late.

That extra-genital lesions, whether primary or secondary, are exceedingly contagious and that the saving of a few hours or even a few minutes, in establishing the contagious character of a lesion on the hand or about the mouth, may prevent most disastrous or even tragic results.

That urethral chancres are far more common than generally believed and that every case of urethral discharge should be regarded as a possible symptom of beginning syphilis, even if the diagnosis of gonorrhoea is positively established.

That in view of the fact that the disease seems to have been eradicated in 94 per cent of our cases whose Wassermann test was negative while the dark-field was positive, a heavy responsibility rests upon all institutions and physicians who expect to diagnose and treat syphilis and diseases of the skin to see to it that a dark-field examination is made of every suspicious lesion as a routine procedure.

Also that where possible these examinations be made by a competent and experienced microscopist paid for the purpose, and not left to the hurried and perhaps careless or inexperienced. In support of this statement I invite your attention to the fact that the Surgeon General of the Public Health Service constantly urges all Marine Hospitals and other relief stations to make careful dark-field examinations.

AN EXPERIMENTAL STUDY OF CERTAIN FACTORS INFLUENCING OSTEOGENESIS*

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INTRODUCTION: The process of calcification and the healing of fractures by callus have always held a fascination for the student of biological growth. Discoveries in experimental cancer research seem to indicate that certain factors must be fulfilled before growth of any kind takes place. It was thought that perhaps the influence of some of these factors could be demonstrated visibly by the use of Roentgenograms when the growth repair of bone was under consideration.

The following experiments were accordingly undertaken and the present report is one of the impressions gained to date. The work is as yet by no means completed as the number of animals is small, and the data meagre. Additional researches are being carried out, and the conclusions may be modified at a later date, when sufficient time has elapsed and a larger number of observations have been made.

Procedure (1) *Ligation of Saphenous Vein—Resection.* Four albino rats were given ether anesthesia, and under aseptic precautions one-half centimeter of the mid portion of the fibula was removed on each leg at the same level. The perisoteum was not reflected and no attempt was made to preserve it. The right leg was kept as the control leg but the saphenous vein was identified, ligated, and divided in the left leg. Since the intact tibia served as an excellent splint, no restriction was put on the use of the limbs of these animals. Healing took place by first intention in all the animals. Roentgenograms were taken to follow the progress of calcification. In six weeks the bone had united in the control leg but no union had taken place in the leg with the partial blocking of the venous system, although the space between the bone ends was reduced in amount.

In a similar manner, one-half centimeter of the fibula was removed at an equally measured distance from the upper end of the bone in three dogs. The periosteum, however, was reflected and preserved in these animals. The right leg again served as the control and the saphenous vein was ligated and divided in the left leg. (The saphenous vein enters the common femoral in the lower third of the dog's leg: it is accompanied by an artery and a nerve. These latter were preserved intact.) Roentgenograms taken at intervals showed solid healing on the control leg after nine weeks but a failure of union on the left leg with the ligated saphenous vein. The bones were explored and removed for study in two of these animals and the non-union verified. Microscopic sections of the control and the non-united bones showed little difference in the picture except in degree. Osteogenesis was taking place in a normal manner on the control side but it had not advanced so far on the non-united side, the slides containing more cartilage and osteoid tissue.

(2) *Ligation of Saphenous Vein—Fracture.* Exactly the same procedure was carried out in two dogs with the exception that a simple fracture was made instead of a resection of bone. The control side healed in seven weeks but no union took place on the experimented side. The bones were explored and removed in one of these animals and the failure of union demonstrated.

(3) *Ligation of the Deep Veins—Resection.* Four dogs were used and one-half centimeter of bone resected from corresponding levels of the fibulas on both sides in two; and one-quarter centimeter of bone removed in the other two animals. The deep veins in the left leg were exposed, ligated distal to the point of entrance of the saphenous vein into the common femoral, and divided. Roentgenograms were taken from time to time and showed that union took place on both sides at about the same time. If there was any difference in the amount of union, it was more substantial on the experimented left leg. (In removing the bones for study in three of these animals, there was motion on the right in one instance and a fracture of the callus in a second). The callus formed on the left fibula (deep veins tied) was considerably larger than on the control right leg in two or three animals in which the bone was removed and exactly the same size in the third which had probably gone too long to reveal the difference. The X-rays taken at a certain stage (4-7 weeks) showed a larger callus formation on the left side in all four instances.

(4) *Ligation of the Deep Veins—Fracture.* Two dogs were subjected to exactly the same conditions as in the resection experiments except that a simple fracture was made. Union occurred on both sides equally, but there was considerable variation in the size of the callus. In one case it was larger on the left than on the right and the reverse in the other case. Difficulty in controlling overriding makes the simple fracture a much poorer experiment as this probably accounts for the differences in these cases.

(5) *Ligation of Both Common Femoral Artery and Common Femoral Vein Resection—Fracture.* One half centimeter of bone from the

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

fibula was removed on both sides at the same level in one dog and a simple fracture of the bone was made at corresponding points in another. In both these animals the common femoral artery and the common femoral vein were ligated and divided proximal to the branching into saphenous and deep systems. Union took place at the same time on both sides. The size of the callus was variable on the two sides.

Discussion.—The results of these experiments seem to indicate that the control of callus formation is regulated by changes in the venous circulation. It would appear that a partial blocking of the venous return from the leg by ligation of the saphenous vein is followed by a delay in osteogenesis in a resected or fractured bone. A blocking of the deep veins, however, which causes a shunting of the venous blood through the capillary bed of the foot and by collateral veins to the saphenous system is not accompanied by any such delay, the healing in such a case being as rapid as on the control side. In addition to this the callus formed at a certain stage in the process tends to be larger than on the normal side. A great many questions arise as to the significance of these findings and there are indications for many experiments yet to be performed. Is the phenomenon one of the disturbance in the nutritional relations? It may be argued that ligating the deep veins raises the pressure in the deep system below the ligature and prevents the arterial blood from furnishing nutriment to the bone cells by back pressure. If such were the case non-union would be looked for but instead there appears to be equally rapid union and more callus. An additional answer to this argument is the fact that union takes place equally well even after the artery is ligated. Is the change one of the blood chemistry? This portion of the experiment has not been investigated as yet. The determination of the P^{H} of the blood in the common femoral vein after ligation of the saphenous vein, however, has been determined twice daily over three days as an index. The colorimetric method as described by Hastings and Sendroy was used. No appreciable change was made out in a comparison with the blood from the normal side, the readings being constant at 7.6.

The determination of the P^{H} from the saphenous vein after ligature of the deep system in comparison with the blood from the saphenous on the normal side showed no appreciable change. These determinations were made twice daily over a period of two days. It is probable that no change in the P^{H} can be demonstrated in the blood, as it is a tissue which has great power of restoring the acid-base equilibrium. Determinations of the P^{H} of the tissues of the extremities are much more important. This was attempted in the rat by use of the outlying acidosis method of Rous with phenol red as an indicator. Other indactors of a wider range of variation are under trial.

A change in the P^{H} might conceivably make a difference in the deposit of calcium and other salts as certain work seems to indicate. A determination of the calcium-phosphorus ratio of the blood from the different sides under the different conditions of the experiment must be undertaken.

The blood volume flow from the common femoral vein was determined to be about 24 cc. a minute in one dog. When the saphenous vein was constricted, the flow from the common femoral was reduced to 18.5 cc. a minute; but when the deep vein was constricted only 5 cc. flowed through the common femoral vein in one minute. This was the average of several determinations in which an almost constant ratio was maintained. This means that there is roughly three to four times as much blood coming from the leg by the deep system as through the superficial This point needs further clarification, especially the late changes in the volume flow after ligation of the different veins.

The differences in the size of the callus were determined by actual weighing of symmetrically removed pieces of bone. Determinations of the amount of water, fat, organic residue and ash were made but the data is not sufficient to be conclusive. The ratio of water to the other constituents, however, is constant in comparison to the normal side, showing that the increased size is not due to edema of the tissues.

Burrows maintains that the essentials for growth are a retarded circulation and a diminished oxygen tension. Under these conditions a growth substance given off by living cells accumulates and stimulates further growth. Under conditions of a normal circulation this substance is swept away into the general circulation and destroyed. Tying the saphenous vein would increase the flow of blood through the deep venous system preventing the accumulation of such a growth promoting substance and delayed union would result. Tying the deep system, on the other hand would give all the favorable factors for growth and an enlarged callus would result. If the repair rate were not already at its maximum, a difference in rate might be observed, but it is probable that any repair process of the body proceeds at maximum speed. The experiments cited in this paper tend to confirm Burrows' theory of growth.

EDITORIAL

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For list of officers of County Medical Societies, See October 1st issue, advertising page xxx.

STANDARDS OF MEDICAL NEWS

The New York State Journal of Medicine has evolved standards for the articles in its department of New Notes.

Does the item deal with an important medical problem?

What plans were adopted for its investigation and solution?

What was the result?

Will the experience that is described help other physicians to deal with their local problems?

These standards exclude the publication of isolated facts usually called personal, whether of individual doctors, or institutions, or organizations, for these items merely give publicity to individuals. Yet when an item records a progressive plan or idea, the Journal will give full publicity to its originator or promotor; but the individual will be subordinated to the idea for which he stands.

News of a County Society or District Branch, or the State Society will be considered to conform to the standards of this Journal, for the activity of any component of the State Society affords a precedent and example for the guidance of other societies.

These standards have been observed during the twenty-six years of the existence of the Journal, and are now restated by the direction of the Committee on Publication.

THE LAY HEALTH ORGANIZATION AND THE MEDICAL SOCIETY

Volunteer health associations composed principally of non-medical members, have been organized in order to do those forms of health work which physicians were not undertaking on a large scale. This JOURNAL has frequently referred to the trinity of health forces—the physicians, the departments of health, and the lay organizations. It was inevitable that there should be an overlapping of the fields of activities among these three groups of public health workers; and it was also inevitable that each of the three groups of workers should gradually find its own peculiar field of activity, distinct from the fields of the other two. The processes of standardization of methods and the recognition of fields of activity have progressed far between doctors and health departments, and to a less degree between doctors and the lay organizations.

When a group of lay health workers is mentioned in New York State, a physician immediately thinks of one of two organizations:

1. The State Charities Aid Association;
2. The Parent-Teachers' Association.

Each organization has local groups in nearly every county. That of the State Charities Aid Association is the County Committee on Tuberculosis and Public Health that is supported by the sale of Christmas Seals. Local Parent-Teachers' Associations exist in some of the cities and larger villages, and only seldom in rural sections. Both of these organizations are essential not only to the people, but also to physicians in their endeavor to do their duty to the people in the practice of public health and civic medicine.

Experience shows that a county medical society cannot carry out a program of public health without the cooperation of lay health organizations; and the reverse is also true, that lay organizations cannot carry out their programs without the active cooperation of the physicians.

Why does each group of health workers need the other? Because public health work involves two groups of activities:

1. Medical;
2. Social, including the educational and the economic phases of practice.

Curative medicine consists of 90 per cent medical service and 10 per cent social service. When sickness is actually present, everybody is anxious to practice the virtue of charity and to assist those in need of help.

The practice of public health and civic medicine is largely preventive, and consists of only 10 per cent medical, while 90 per cent of its activities are of a social nature. Any one who practices preventive medicine will give only 10 per cent of his time to medical work, while he must give 90 per cent of his time to work of an educational, economic and social nature.

This same proportion of activities holds true in the practice of curative medicine, if everything that is done for a patient is considered. A doctor, for example, gives an hour of his time to the patient daily; a nurse gives all day; the family of the patient subordinate their lives to his service; and if the patient is poor, the charitable organizations and churches and visiting committees spend hours of time upon the case. If all the time given to those activities is considered, the total activities in the practice of clinical medicine will be found to consist of 90 per cent non-medical and 10 per cent medical services, as in the practice of preventive medicine.

When a person is sick, every activity centers around the medical service, and the doctor is accepted as the commanding officer whose slightest wish must be obeyed.

The practice of preventive medicine consists largely in averting dangers which are set forth in tables of dry statistics. Much educational work will have to be done before the people will be eager to demand that measures for their own health protection will be adopted.

The object of any public health work is to apply medical knowledge in the prevention of disease. Practicing physicians know what medical science can accomplish—its possibilities and its limitations. They are also the best judges of the efficiency of proposed health measures. They are especially qualified to judge of the practicability of measures that are proposed by lay organizations, and they deprecate the issuance of promises that are too rosy for realization. The lay health organizations need the direction and guidance of the physicians, especially in their local programs.

The actual practice of all forms of medicine —preventive as well as curative—is the exclusive function of physicians. The work of lay organizations is the development of means by which the patients may avail themselves of the medical services of physicians. Physicians can scarcely practice preventive medicine without the help of lay organizations. Each group is complementary of the other, but it must be remembered that the work of lay organizations is the *means,* while that of physicians is the *end* of public health work.

These principles may be applied in actual practice. The steps in the application may be illustrated as follows:

1. The physicians shall decide to practice some form of public health and civic medicine; for example, to hold a child welfare clinic.
2. They shall make specific plans for the clinic, the time, the place and the appointment of examiners.

3. They shall secure the cooperation of the local Tuberculosis or Parent-Teachers' Association in getting parents to bring the babies to the clinics, and looking after them, and taking them home.

4. The lay workers shall follow up the defective cases and aid the mothers in applying the treatments—food, hospitalization, operations, and whatever else is prescribed by the doctors.

If the doctors once decide to practice public health, they will find a way to secure the cooperation of the lay organizations, and to lead them in forming their plans.

RESPONSIBILITY FOR HEALTH

The responsibility for health conditions of all kinds rests primarily with physicians, for it is the medical profession that investigates the causes of ill health and disease, and develops the means of cure and prevention.

When physicians have developed a health measure, the next step is its adoption by the people. The maintenance of constant health, like that of physical strength, or beauty, or courtesy, or morality, requires active watchfulness and effort by the one seeking it. No one expects the pastor to "compel" people to be good, neither should any one expect the doctor to "make" people well. The doctor lays out and builds the road to health, and acts as guide to those who seek it; but he cannot compel people to follow the road, neither can he carry them. The lay health worker persuades his fellows to walk the road to health, and provides the means of transportation, subsistence, and refreshment to those travellers who need them.

Laymen cannot build the road to health; neither can physicians advertise it and secure patrons for it. Both physicians and laymen have a mutual need for each other, in designing and operating the road.

Concretely the leaders in the practice of public health are organizations of physicians, and organizations of laymen. A doctor treating only the sick who hire him will reach only a small proportion of the people of a community. An organization of doctors, working with an organization of the people, is necessary in order to reach all the people in a community. The civic duty to improve health rests equally upon the people and upon the medical profession.

The concrete representation of the people is the lay health organization,—usually the County Tuberculosis Committee. The concrete representative of the medical profession is the County Medical Society.

While the individual physician in the past has disclaimed a personal responsibility for the practice of public health, yet now he realizes that he himself is the medical profession. The fundamental act by which he may satisfy his conscience and practice public health is to support the leaders in his county medical society in their activities.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Uniting the Two State Medical Societies—This Journal for November first, 1902, contains a four-page report of the first steps taken to unite the two State Medical Societies,—the Medical Society of the State of New York, and the New York State Medical Association which had existed since 1883, as described by Mr. Stryker on page 1207 of this issue. The report consists principally of letters which passed between the conference committees of the two societies. The correspondence began on February 5th and 7th, 1902, with two letters from Dr. F. C. Curtis, of Albany, Secretary, stating that the Medical Society of the State of New York had appointed a conference committee consisting of the following members: Dr. Henry L. Elsner, of Syracuse; Dr. A. Jacobi, of New York; Dr. A. Vander Veer, of Albany; Dr. A. M. Phelps, of New York; Dr. George Ryerson Fowler, of Brooklyn.

The Council of the New York State Medical Association met on February 7th and appointed as a conference committee Dr. E. Eliot Harris, chairman, and Drs. William H. Biggam, Emil Mayer, Parker Syms and Frederick Holme Wiggin, to which committee the president is added as a member ex-officio.

Meetings held in the New York Academy of Medicine, on March 19 and April 18, decided on the form of a bill to be introduced in the next Legislature authorizing the union of the two State Societies into the single one that now exists.

The report stops at this point with the outlook favorable to the speedy union of the two societies; but over three years were to elapse before the various opinions of the members could be harmonized and the union effected.

MEDICAL PROGRESS

Dangers of Intravenous Treatment.—John Howard Frick protests against the appalling degree to which intravenous injections are employed with anything but strictly aseptic conditions. Death has resulted in two instances after the accidental injection of 80 c.c. of air, and in four cases after the injection of between 125 and 150 c.c. of distilled water. If reactions such as pain and hemolysis of red corpuscles are to be prevented the solution must be neither too hot nor too cold. Other untoward effects of improper dosage or error in the technique have been obliteration of the vein, injection of the solution outside of the vein, which in the case of calcium chloride produces a most dreadful slough, and spasms and convulsions in a few instances. In giving an intravenous injection only the finest needle, a 16 gauge, should be used and the rule should be to take one minute for each 2 c.c. of the solution. If during an injection a patient complains of undue pain, or if there is unusual swelling at the site of the injection, the physician should desist. When a patient complains of backache during an injection it is a signal immediately to cease the introduction of the fluid. An increase in the pulse rate should likewise indicate cessation of injection. Most of the danger of intravenous medication does not lie with the administration as much as with the manufacture of the product. Few manufacturers have given sufficient consideration to the concentration coefficient. In many instances products deteriorate as the result of ageing, of reactions with glass, or of exposure to light or variations of temperature. Apparently the only way to overcome this difficulty is to make up a solution of a drug in bulk, allow it to age for six months or a year, assay and restandardize it and then seal it in alkali-free Jena glass. Only the so-called shoulder ampoule, that is easily broken without splintering the glass, should be used, in order to avoid the possibility of injecting fine particles of broken glass.—*Medical Journal and Record,* August 3, 1927, cxxvi, 3.

Nature of Allergens.—F. Klewitz and R. Wigand apply this term to substances which produce allergy and allergic diseases such as horse asthma and hay fever. They tested about 70 samples to determine basic qualities, employing them singly and in mixtures. Extracts of various crude substances, such as cattle hairs and meadow grass were made, and inoculation experiments were begun. The following were the conclusions at which they arrived: allergens are to a considerable extent heat-stable and can stand boiling for some minutes at least. Coagulation takes place but the filtrate retains the allergic property and the active principle cannot be salted out by saturated cold ammonium sulphate solution. The allergens are fully dialyzable and pass through Congo-tight ultrafilters. Allergens are soluble in saline solution but not at all in alcohol, ether, chloroform and acetone. They contain no biuret substances and so of course do not give a biuret reaction. This is as far as we can determine the nature of these substances at present. Little is known of their molecular structure except that they are low molecularly and do not belong to the lipoids. They contain nitrogen, but to what extent they contain crude protein and protein split products is as yet unknown. While the activity of these allergens appears to depend on their nitrogen content we know of other allergic substances which do not contain this element. Allergens are probably not unit substances but mixtures.—*Klinische Wochenschrift,* July 23, 1927.

"Spontaneous" Cure of a Cancer of the Lip.—This case is reported by A. Avramovici of Bucharest. There could hardly be any doubt of the diagnosis of spinocellular epithelioma of the lower lip, for a biopsy was made by no less an authority than Professor Babès, and there could also be no doubt that the ulcerated mass healed completely and that the patient has been free from recurrence for four years. The patient, a man of 45, seems to have belonged to a cancer family, since his father and a brother are known to have succumbed to the disease. But there is some doubt as to the spontaneous character of the recovery because the patient went through two sharp attacks of malarial fever during the short interval between the first appearance of the precancerous wart and the disappearance of the lesion and the author himself seems to attribute the cure to this intercurrent experience. This would take the case out of the realm of spontaneous regression of the cancer. The patient took large doses of quinine during the febrile accesses and continued these after the disappearance of the fever, and quinine at one time was regarded as possessing anticancerous properties—notably by Jaboulay and his pupils. It might even be claimed that the biopsy excision gave a fillip to recovery as partial operation for cancer has occasionally, though rarely, had this result. The patient had also been cauterized by the paquelin by his family doctor, and although this intervention seems to have aggravated greatly the course of the disease it may have provoked a reaction in the connective tissue. The case ended dramatically, for the patient wished to go home before operation and when he returned 12 days later the lesion was nearly cicatrized, greatly to the astonishment of Professor Gerota, the surgeon. The only treatment in the interim had been hydrogen peroxide and rest.—*Lyon Chirurgical,* May-June, 1927.

Fasting Cures.—W. Arnoldi sums up a survey of this subject as follows: A diet poor in vitamins or lipoids, rich in salt, rich or poor in carbohydrate, protein, or fat, with unsuitable electrolyte content may cause serious damage. Dieting should be based on the study of the individual case to determine its actual requirement. We have learned how to diet a diabetic scientifically, but know much less about dieting in obesity, save when this is palpably the result of wrong diet. Apparently the patients best suited for diet suffer from anaphylactic, allergic, or angiospastic states in which presumably there are certain substances involved which act on the smooth muscle fibers of the bronchi, bloodvessels, etc. Here withdrawal of nutriment for a longer or shorter time may be of value. The author has seen good results from a fast of one to two weeks in appendicitis and gastric ulcer, followed then by a regulated diet. Fasting is known to lead to the elimination of uric acid and to complete catabolism. The same mechanism is seen in drug addictions, and fasting after withdrawal of the medicament (alcohol, morphine, quinine, nicotine, etc.) is of value in securing complete detoxication of the body. It is still undecided whether lues is amenable to fasting cures. For disburdening the economy of water and nitrogenous slag in chronic circulatory and metabolic affections short fasts of a day or so at a time are indicated, but they are contraindicated in tuberculosis, malignant diseases, and sepsis, at least after cachexia has developed.—*Deutsche medizinische Wochenschrift,* July 29, 1927.

Acetonuric Vomiting in Children.—H. Seckel, writing in the *Münchener medizinische Wochenschrift,* July 22, 1927, says that there are three characteristic features of this affection, namely, vomiting, acidosis, and tendency to recur, to which we may add a fourth, the prompt response to the glucose treatment. The condition then is important rather because it may lead to diagnostic errors than for any serious significance in itself, for the severe emesis may suggest several very serious conditions such as ileus, meningitis, and appendicitis. In a case treated in 1926 occurring in a baby 19 months of age there had been incoercible vomiting for three days. The diet had consisted predominantly of carbohydrates with no meat or sausage and the attack had set in without prodromes. The physician who referred the case to the hospital had made the probable diagnosis of tuberculous meningitis. Examination showed nothing pointing to meningitis or appendicitis. The breath was strong of acetone and in the urine were found acetone and diacetic acid. The treatment consisted of rectal instillation of a 20 per cent solution of nutrient sugar which shortly did away with the evidences of acidosis, including the vomiting. Not all cases are so simple, however, for these patients sometimes come to laparotomy, the condition being imperfectly known to both pediatrists and surgeons. In the predisposed, acetonuric vomiting may be precipitated experimentally by an exclusive carbohydrate diet and these children usually are found in neuropathic families in which migraine, asthma, and other anaphylactic affections tend to appear. In theory insulin should be of value and may be tested in cases which do not respond promptly to glucose.

Acute Infectious Multiple Sclerosis.—H. Pette of Professor Nonne's neurological clinic in the Hamburg-Eppendorf Hospital mentions the cases in this hospital during the past two years in which either encephalitic or myelitic symptoms were in evidence, the two at times being associated in the same patient. Two patients died out of a total of about twenty-five. Autopsy showed disseminated lesions of an acute type to which the term sclerosis could not yet be applied, and which were evidently of an infectious nature. Naturally with an affection of this nature involving both brain and cord a many-sided clinical picture resulted. The other cases which were purely clinical had not been under observation long but suggested an acute inflammatory stage of chronic multiple sclerosis, often with the probability of a series of exacerbations with intervals of quiescence. There is also the likelihood that some of these cases may recover entirely. We have the suggestion of an entire group of cerebrospinal affections which comprise lethargic encephalitis, acute poliomyelitis, and post-infectious encephalomyelitis (such as has recently followed vaccination in a few cases). In none of these affections has a living cause been demonstrated as yet, hence it is inferred that in the entire great group we have to do with an ultravisible virus. From this angle we may think of multiple sclerosis as the continuation or sequel of still another member of this group. It is of interest to note that multiple sclerosis has often followed cases of variola, measles, scarlet fever, whooping cough, and malaria, hence showing a marked analogy to post-infectious encephalomyelitis, an affection which has been too recently isolated to justify its autonomy.—*Münchener medizinische Wochenschrift,* August 19, 1927.

Contribution to the Knowledge of Myomata in the Small Intestine.—Kurt Key-Aaberg reports the case of a man, aged 65, who only a month before admission to the hospital noticed a tumor in the abdomen. He had no symptoms whatever except some sluggishness of the bowels. A smooth elastic tumor, the size of a child's head, extended from a little above the umbilicus nearly to the symphysis. The feces gave a positive Weber reaction. The patient had a well marked secondary anemia. At operation a loop of small intestine was found to be so intimately connected with the tumor that resection was necessary. The tumor weighed 1,280 gm., and is described as intermediate between the subserous and the submucous types of growth. Almost one-fourth of its volume was situated within the intestinal lumen and about three-fourths outside the plane of the intestinal wall. The tumor was enclosed by the intestinal wall in almost its largest circumference. It was shown by microscopic examination to be a levicellular fibromyoma, apparently developed from the tunica muscularis, probably from the innermost layer. Myomata in the small intestine of sufficient size to give rise to severe symptoms are rare. In a review of the literature it was found that Staemmler had collected 88 cases of this type of myomata, and Key-Aaberg found a number of additional cases. The majority of these tumors were small with no clinical symptoms. There were, however, seven cases in which the intestinal myomata were of the same size as in the case here described. In no case was there any malignant degeneration; retrogressive changes were mainly in the nature of hyaline degeneration, necrosis and calcification. — *Acta Chirurgica Scandinavica,* August, 1927, lxii, 3-4.

Local Application of Vitamins.—H. Beck of Professor Bier's Surgical Clinic of the University of Berlin (Cutaneous Department) sums up the numerous attempts to administer vitamins by routes other than the buccal-rectal, intraperitoneal, subcutaneous, intravenous, or cutaneous. The last named is particularly promising and already numerous favorable results have been claimed in certain skin diseases. Plant substances rich in vitamins have been used alone and in combination with inorganic tissue salts and anilin coloring matter, aided in certain cases by ultraviolet rays, iontophoresis, etc. The principle involved is to improve the bactericidial quality of the blood which is impaired in vitamin deficiency. The author has treated numerous cases of ordinary acne, at first by simple iontophoresis with the addition of colloidal gold, arsenic, sulphur, etc., internally. He then substituted iontophoresis with the local addition of vitamin and the absence of any internal treatment, and found the results superior. The method was extended to lupus vulgaris with the addition of röntgen radiation (as preliminary). In 12 cases, 8 gave positive results with vitamin-iontophoresis alone Varicose ulcer and eczema also responded well. The vitamin preparation has also been used freely as an ordinary application in the form of paste or ointment alone, combined with other skin remedies. In addition colloidal metals in infinitesimal doses are given internally.—*Muenchener medizinische Wochenschrift,* July 8, 1927.

Treatment of Glaucoma.—According to Professor Felix Lagrange it is possible to help the glaucomatous by miotics, adrenalin, and hypotensors in general, while appropriate hygiene is also of value, but for radical cure we must resort to surgery. In acute glaucoma a scleral iridectomy suffices. In subacute glaucoma, *i.e.,* of several years' duration with a tension of about 60, the tension may be brought down to 40 with retrobulbar anesthesia and adrenalin — after which a longitudinal sclerotomy at the limbus is indicated. In chronic glaucoma with constant hypertension retrobulbar injections will make the case operable while if the hypertension is intermittent ordinary cocaine anesthesia suffices. If the anterior chamber is not effaced an incision may be made in the sclera with a knife and the part of the sclera which is in the wall of the anterior chamber removed. When the anterior chamber is completely effaced a trephine opening of 1 mm. is employed and half a circumference is detached—an elongated tongue being removed with the scissors, after which an iridectomy is performed. In all glaucoma work a conjunctival flap is first turned back. By adhering to these principles we avoid wounding the ciliary body, while the use of the conjunctival flap prevents infection. The narrow tongue mentioned above should have the dimension of 0.8 to 1 mm. and should be just in front of the iris. A larger flap will risk injury to the cornea or ciliary body and damage to the latter will mean serious nutritive disturbances in the eye; while injury to the cornea will be followed by a proliferation which will close the operating wound.—*Bulletin de l'Académie de Médecine,* July 5, 1927.

A New Syndrome Characterized by Provocable Aortico-Iliac Pain.—Professor D. Taddei of the Pisa University Surgical Clinic has elicited this phenomenon in a variety of conditions by compression over the abdominal aorta and common and external iliac arteries. The sign was elicited chiefly in persons between the ages of 20 and 50, never in those under 15 or over 60. The general conditions, as a rule, comprised anemia and malnutrition with debility and at times neurotic manifestations; in this picture there is, of course, nothing on which to base an actual diagnosis. Almost any kind of a diseas may be suggested, as chronic appendicitis, colitis, annexitis, various forms of calculus, functional dypepsia, neurasthenia, etc. Thorough examination usually excludes organic disease of the cardiovascular system, liver, kidneys, spleen, etc. The chest, however, often presents some minor symptoms of an atypical character which are not substantiated by radioscopy. In a few cases in which, as a result of erroneous diagonsis, laparotomy had been performed no anatomical lesions of any kind were found in the abdomen and exploration of the abdomen by radiography has likewise always proved negative. The treatment test has never thrown any light on the nature of the phenomenon. If any hypothesis is justifiable it is probably that of a masked tuberculosis, a tuberculous toxicosis. Apparently the author attaches little importance to the von Pirquet test in these cases, although the test is usually positive. The patients are best treated, the writer suggests, as though they were subjects with latent or threatened tuberculosis. From the diagnostic angle this sign comes into comparison with the older abdominal tender spots.—*La Riforma Medica,* July 4, 1927.

The Development of Cardio-Vascular-Renal Disease—James P. O'Hare, writing in the *Boston Medical and Surgical Journal,* July 28, 1927 (cviic, 4), presents a graphic scheme of the development of these conditions which leads to a better prognosis and more intelligent treatment of vascular disease. He shows that the hypertensive process which manifests itself at 35 to 45 years of age has its beginnings much earlier in life. He and Walker found that 76 per cent of their hypertensive cases had a definite family history of vascular disease, and 42 per cent of patients with high pressure gave a history that indicated vascular disturbance very early in life. This is tremendously important, because it indicates a possible prophylactic therapy in these vascular families. Hypertensive disease has, first, a non-hypertensive stage characterized by an abnormally responsive vasomotor system, manifested by symptoms such as nosebleed without apparent cause, high color, easy flushing, and clammy hands and feet. The second stage, which occasionally may be noted at about the age of 35, is characterized by a fluctuating systolic pressure, which gradually swings to higher levels. In this stage arteriosclerosis of the smaller blood vessels may possibly have its beginning. Certain it is that in the third stage, that of permanent hypertension, there is definite evidence of sclerosis in the smallest arteries and arterioles. Almost from the onset of the third stage, that of permanent hypertension, three factors may be observed, namely hypertension, retinal sclerosis, and cardiac hypertrophy. This last may be found by ordinary methods of diagnosis in over 80 per cent of all hypertensive patients. Where such means do not readily disclose the hypertrophy, the seven-foot *x*-ray plate or the electrocardiogram almost invariably reveals it. From the point of cardiac hypertrophy, the course of the vascular disease may follow along any one of three lines or combination of these lines. The lesion may progress more in the cerebral vessels, producing cerebral arteriosclerosis and cerebral hemorrhage; or along the cardiac route, causing angina pectoris and congestive failure; or the kidney may be involved, leading to uremia or diabetes. Rarely does arterial disease confine itself to one system. With this mode of development in mind, it is important to remember that cerebral hemorrhage can occur in the "silent areas" of the brain without paralyses; and that in elderly persons with hypertension, edema, oliguria, albuminuria, and cylindruria, the chief difficulty with the heart may be.

Simmond's Disease (Hypophysary Cachexia).—Professor N. A. Schereschewsky of Moscow refers to the description by Simmonds in 1914 of a new malady, termed by him hypophysary cachexia, characterized by precocious senility and a cachectic condition with apathy, somnolence, loss of memory, and other evidences of psychic involution. Frankel reported a second case in 1916 and Simmonds two additional cases in 1918. More recently other observers have been heard from and the conception of the disease, at first simple, has become complex, owing apparently to the participation of different segments of the hypophysis with the presence of various other hypophysary symptoms, and the further complication of basic processes which have originally involved the hypophysis, such as multiple sclerosis. The author quotes a case seen by Lichtwitz in 1922 which appears to have been the first to occur in a male, although the author had made no mention in his introductory remarks of any sex incidence. To this case he adds a personal one, likewise in a male. The condition could readily have been overlooked, for the patient was tuberculous with chronic myocarditis and achylia gastrica and his precocious senility would ordinarily have been set down to his chronic invalidism. The mechanism assumed for this case was a hemorrhage into the hypophysis which led to atrophy of the latter. Autopsy was procured with the following finds: the patient, a man of 28, appeared to be of age 42 to 45. There were numerous scattered hemorrhages in the base of the brain with atrophy of the anterior portion of the hypophysis, presumably due to hemorrhage, although there appears to have been no direct evidence to this effect. In conclusion it seems more appropriate to look on this condition of hypophysary presenility as a syndrome rather than an autonomous disease.—*Revue française d'Endocrinologie,* August, 1927.

LEGAL

By Lloyd Paul Stryker, Esq.

Counsel, Medical Society of the State of New York

OUR SOCIETY—ITS DIVISION AND REUNION

In a previous editorial we have spoken somewhat of the founding of the Medical Society of the State of New York. The study of its early records should be of surpassing interest to every medical man. Much that we read in the accounts of its early transactions seems surprisingly modern.

Thus in the anniversary address delivered by Dr. Nicholas Romayne on the second Tuesday of February, 1809, we read: "Every community does honor to itself which treats with liberality men conspicuous in the learned professions for their genius and talents. It is only among an illiterate people that they become the subjects of jealousy and persecution. Where ignorance and prejudice abound there empiricism is maintained; and as the genial influence of science and human improvement prevail, quackery and every kind of imposition diminish." And one year later, President Romayne in his annual address again discussed that subject in these words: "Though the evils of quackery seem so difficulty prevented by Legislative power, yet it is always remedied by the influence of public opinion, which becomes more imposing, as the state of society is cultivated and improved. When Practitioners of Medicine are diligent and judicious in the exercise of their professions, they manifest to men of any discernment, their superior skill and success in the cure of diseases; and will show, in a striking point of view, the difference between the well educated Physician and Surgeon, and the mere pretender to professional knowledge."

And again in 1812, in his anniversary address, Dr. Romayne declared: "To patronize imposters is always disreputable to individuals and degrading to communities. Such a state of society as favors a degrading condition of any of the learned professions can only be changed by the slow operation of time, and may not be effected but by the succession of ages. In medicine especially, when people become attached to professional imposters, their pride and self love are excited to give support to such persons with more zeal than is ever experienced by regular physicians and surgeons. Those who contemplate to cherish the progress of medical science in this State must not imagine that the difficulties which long opposed the advancement of knowledge are even now entirely dissipated. * * * It is among the important duties of this Society to protect the profession from the intrusion of improper characters and to secure the public from impositions."

It is apparent from these addresses delivered nearly a century and a quarter ago that the problem of the unlicensed practitioner, cultist and quack with which we of our time are so familiar, was well known in those early days.

Throughout the long history of our Society, there is constant evidence of its attempt to uphold and to protect the high standards of the medical profession and to do all within its power for the advancement of true science. We find, for example, that the establishment of the national pharmacopoeia was due to the influence of our Society. As early as 1818, the New York County Society communicated with the New York State Medical Society suggesting the appointment of a committee to consider the formulation and adoption of a national pharmacopoeia. The matter was duly referred to a committee of the State Society, and one year later a complete pharmacopoeia was reported from our State Society to the district convention of the Middle States assembled at Philadelphia. The result of this was the national pharmacopoeia.

No more interesting or important chapter in our history can be found than that which relates to the founding of the American Medical Association. It should be a source of constant pride for us to remember that the founding of the A. M. A. was due to the Medical Society of the State of New York.

The first movement which was directed toward a convention of delegates drawn from all over the United States not only from the medical colleges, but from the regularly organized medical societies throughout the Union, was made at the annual session of our State Society held in February, 1839. A resolution looking to this end was proposed by Dr. John McCall of Utica, the preamble of which recited that "Whereas, A National Medical Convention would advance, in the apprehension of this Society, the cause of the medical profession throughout our land, in thus affording an interchange of views and sentiments on the most interesting of all subjects—that involving men's health, and the means of securing or recovering the same;" therefore it was resolved that a convention should be called for the following year in the City of Philadelphia. The physicians of the country at that time were apparently not ready for this new movement, and it was not until May, 1846, at the hall of the

Medical Department of the New York University, that the first convention of doctors from other States of the Union came together.

One of the reasons which led to the call of the convention was the growing conviction among the physicians of that day that medical licensure should be in the hands of the state authorities. The movement, therefore, at first met with considerable opposition on the part of the medical schools. Indeed, so great was this opposition that at the very first session of the convention, a resolution was offered by one of the faculty of a medical school that the convention then adjourn *sine die*, but fortunately by an overwhelming vote, the resolution was not agreed to, and the following four resolutions were adopted:

"First: That it is expedient for the medical profession of the United States to institute a National Medical Association.

"Second: That it is desirable that a uniform and elevated standard of requirements for the degree M.D. should be adopted by all the medical schools in the United States.

"Third: That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education.

"Fourth: That it is expedient that the medical profession in the United States should be governed by the same code of Medical Ethics."

In the year 1846, therefore, the American Medical Association, due to the influence and the tireless efforts of our State Society, entered upon its long career of usefulness; and one year later, at the Hall of the Academy of Natural Sciences in Philadelphia, delegates from all over the United States attended. One of the resolutions then adopted carried into effect the purposes which had actuated the promoters of the American Medical Association in bringing the physicians from all sections of the Union into one harmonious body. From this resolution have come our present methods of state licensure.

This resolution declared: *"Resolved,* That the union of the business of teaching and licensing in the same hands is wrong in principle and liable to great abuse in practice. Instead of conferring the right to license on medical colleges and State and County medical societies, it should be restricted to one board in each State, composed in fair proportion of the representatives from its medical colleges and the profession at large, and the pay for whose services as examiners should in no degree depend on the number licensed by them."

As we pursue the narrative of the difficulties encountered by those farseeing men who foresaw the need and value of union, and who overcame all obstacles of prejudice and misunderstanding, and finally brought about the founding of the American Medical Association, we are reminded of the all but insurmountable task which confronted those who, under the leadership of Washington and Hamilton, brought about the Union of the States; but as the work of Washington and Hamilton was to receive its final vindication in civil strife, so the work of the founders of the A. M. A. was to be interrupted by dissention.

In 1883, thirty-seven years after the founding of the A. M. A., there occurred a rupture of relations between the national body and our State Society, which was not to heal for nearly a quarter of a century. It was at an annual meeting of the State Society in the year 1883 that a resolution was offered intended to take the place of a formal code of ethics which had been adopted the year before. The resolution was called the "no code" resolution. The result of this was that the New York State Medical Society severed its affiliation with the national body. But those who dissented from the principle of that resolution and who desired to continue the affiliation with the A. M. A., in 1884 organized the New York State Medical Association. These two rival State organizations continued to exist side by side for twenty-one years, and in each county there was a county association as well as a county society.

This was an exceedingly unfortunate division —as unfortunate a division as would have been the continued separation of the North and the South. As time went on, however, what was apparent to so many on the occasion of the unfortunate differences of opinion, became obvious to increasing numbers of the profession, namely, that in union there is strength, and in disunion, frustration. As the nineteenth century dragged on to its close, a new generation of medical men was coming into practice, who were unfamiliar with and therefore entirely untouched by the dissention which had led to the unfortunate division of the medical profession. The influence of these new men and the wise counsel of the older heads who had deplored the original dissention, led finally to a consideration of measures designed to heal the old wounds.

Speaking of the conditions which obtained while the division lasted, Dr. John Wyeth, from whose interesting autobiography we have quoted in a previous editorial, declared: "The two hostile camps created an unfortunate situation. The regular medical profession, in its warfare against quackery and ignorance and malpractice, needed to be a solid body with a united front. For twenty years in the Empire State it was as a divided house, and, although it did not fall, it was leaning over so far that the enemies of progress in medical affairs smiled in their sleeves at the tottering structure. The only redeeming feature of this deplorable situation was that the doctors at variance were acting from conviction and had no axes to grind. It was the old, old story of the shield with its two sides, and the difficulty was to induce the tilting knights of the spatula and scalpel to study carefully the other side.

There was not a time in all this unhappy controversy over questions of ethics when a compromise could not have been effected. The code of ethics was a sort of medical family Bible, setting forth some very strict rules of conduct, all of which even those who stood out for them didn't always follow. There was a middle and a safe way, and it fell to my lot to be of service in finding the path which led to a united profession."

During the fall of 1900, when the New York State Medical Association was holding its annual meeting in New York City, Dr. E. Eliot Harris, prominent even then in its affairs, called on Dr. Wyeth with a proffer for the nomination for the presidency. Dr. Wyeth saw the opportunity to attempt to reunite the profession in the State, and told Dr. Harris that he would accept the office if he could be assured by those influential in the organization that they would assist in bringing about a compromise with the old New York State Medical Society, from which would result a reunion with the members of both bodies in the national association. The assurance was given, and Dr. Wyeth was elected president of the New York State Medical Association.

What took place is told by Dr. Wyeth in these words: "Relying upon the integrity, loyalty, and the extraordinary ability of Dr. Harris, I met him several times, and we finally formulated a plan which we proceeded to carry out. Our first move was the inauguration of an active campaign for increasing the membership of the association, and in doing this we organized new bodies in counties where none had existed. Meetings were held all over the State, attractive papers were read by our most eminent men, and a great many new members were obtained. In two counties we won over to the association the regular society organizations. When the movement was at its height I called on the leaders of the society and found them ready to listen to our overtures. While this was pending the profession throughout the United States, having learned of what was being attempted in the Empire State, showed their approval by electing me President of the American Medical Association at the St. Paul meeting in June, 1901, and at the request of the New York delegation the next annual meeting of the national organization was held at Saratoga in 1902. To this meeting all the members of the society were invited, and the work of fraternization went bravely on. Among the prominent physicians of the State who lent invaluable aid at this juncture was my friend and former partner in the college quiz, Professor Joseph D. Bryant. In order finally to complete the fusion certain legal steps became necessary. Dr. Bryant, already prominent in public as well as professional affairs, took charge and with his usual tact and skill carried the reunion to a successful conclusion."

The legal steps necessary to bring about the consolidation were troublesome and complicated in their nature, and were not effected without the aid of legislation. In 1904, a law was passed authorizing "the consolidation of the Medical Society of the State of New York and the New York State Medical Association." A long and somewhat complicated agreement was thereafter and on the 19th day of October, 1905, entered into betwen the Medical Society of the State of New York by Joseph D. Bryant, president, and the New York Medical Association by Allen A. Jones, which provided for the terms of the consolidation. Two months later, on the 9th day of December, 1905, the records of the Supreme Court reveal that at a Special Term of the Supreme Court, held in the City of Rochester, an order was duly entered whereby the two societies were consolidated on the terms and conditions of the agreement previously entered into. The old name of the Medical Society of the State of New York was preserved, and the members of the joint committee of conference appointed to bring about the consolidation were made ad interim the officers of the new consolidated society.

The medical profession should never forget the services performed by these men, who were Dr. Henry L. Elsner, Dr. A. Jacobi, Dr. A. Vander Veer, Dr. George Ryerson Fowler, Dr. Frank Van Fleet, Dr. E. Eliot Harris, Dr. Julius C. Bierwirth, Dr. Alexander Lambert, Dr. Parker Syms and Dr. Wisner R. Townsend.

Thus, at last, the breach which had separated the profession for a quarter of a century was healed. The healing had taken place in 1906 in time for the celebration of the 100th anniversary of the founding of the Medical Society of the State of New York. After a quarter of a century of unfortunate division, reunion had been effected. All the differences were healed, all the misunderstandings adjusted, and the Medical Society of the State of New York, the founder and the originator of the A. M. A., entered upon its second century of useful life.

Twenty-one years of this second century have already passed. We find the Society stronger, more effective, more cohesive, more determined to uphold the high standards of the profession, more resolute to assist in the exposure and elimination of quacks and charlatans, and more appreciative of the benefits of friendly intercourse and the advantages to be derived from united action than ever before in its history.

The writer well appreciates that many of those who were responsible for the healing of the wounds are now living, and whose knowledge of these transactions vastly transcends all that he may have gleaned from the records. To the new generation of doctors, however, that has come into practice in the past twenty-one years, the writer has felt that this brief excursion into our history might be not without interest.

X-RAY FILMS—PARTIAL ALOPECIA

The patient was under the care of a physician who had advised him to procure X-ray pictures to assist such physician in the diagnosis and treatment of the patient's condition. The patient went to the defendant, a roentgenologist, for the purpose of having the X-rays of his head and face taken. X-rays were taken, but were not sufficiently clear and did not satisfactorily show the patient's condition. A second set of X-rays were then taken.

It is charged that the roentgenologist in the taking of the pictures did not use proper care and skill but experimented with the patient, and that by reason of the experiment of the roentgenologist, the patient's head and scalp were injured and his hair was caused to fall from his head, leaving bald spots at various places upon the head. That prior to the taking of the X-rays the patient had had a good crop of hair and that since the films were taken the plaintiff claims to have been compelled to seek medical aid in an endeavor to relieve the injury to his scalp and the roots of his hair. By his action he sought to recover damages against the defendant roentgenologist.

The plaintiff was referred to the roentgenologist for the purpose of having X-rays taken of the frontal sinus and antrum. At the first session three pictures were taken of the head, the first of the left cheek, with a skin target distance of 25 inches, spark gap 4½ inches, 32 milliamperes and 10 seconds exposure. Films were also taken of the right cheek with the same factors of dosage. These films being unclear and indefinite four days later another set of films were taken of the right cheek and left cheek, the factors being skin target distance 25 inches, spark gap 4½ inches, 32 milliamperes and 15 seconds exposure. About five or six days after the last films were taken the physician who was attending the plaintiff for his sinus condition noticed that the hair was falling out at the back of the patient's head. There was no redness there to indicate that the patient had suffered any X-ray reaction. When he was again seen about a month later this physician observed a large bald spot on the back of the plaintiff's head, the spot being about three inches in diameter. Several months later when the plaintiff was again seen by this physician it was observed that the hair was growing in again and the physician believed that within a short time the plaintiff would again have a full head of hair just as he had before the X-ray films were taken.

When this action reached its place upon the calendar for trial the plaintiff failing to prosecute, the complaint was dismissed.

NON-PAYMENT OF BILL—MALPRACTICE COUNTERCLAIM

During the protracted illness of a patient, a physician had rendered services as an expert diagnostician and gastro-enterologist. His services extended over a period of several months and consisted of a number of visits to the patient's home and also of the patient's visits to the physician's office. During the period of treatment the patient paid part of the physician's bill and when the services were completed and after much dunning by the physician, another installment of the bill was paid. The balance of the bill remained unpaid and the physician then sought to collect the same through an action. To the physician's claim the patient interposed a counterclaim of alleged malpractice, charging the defendant generally with negligence and carelessness in his examination and treatment and also claiming that the charges made for services by the physician were excessive, which amounts he demanded be refunded to him. The patient claimed damages in that he was put to additional expense for further hospital and medical treatment and was prevented from attending to his usual business.

This patient had been suffering from a stomach ailment for some period of time, and upon the advice of his brother, a physician, was referred to the plaintiff in this action for expert advice. After a thorough examination the plaintiff diagnosed the condition as a duodenal ulcer and had the defendant go to a private hospital, where he remained for about a month under treatment by the plaintiff. After leaving the hospital the patient called on the plaintiff physician several times at his office. During the course of the treatment X-ray pictures were taken of the patient's stomach. This physician's treatment was proper and correct in all respects, and the bill rendered for the services was reasonable.. The refusal of the patient to pay and the interposition of a counterclaim of alleged malpractice was one of the numerous attempts of ungrateful patients to avoid payment of a just bill of a physician.

The malpractice counterclaim was withdrawn and the unpaid balance adjusted between the parties.

NEWS NOTES

THE EIGHTH DISTRICT BRANCH

One hundred and twenty physicians, sixteen of whom were women, gathered in the Community House at Warsaw, Wyoming County, at 10:30 A.M., October 6th, for the twenty-second Annual meeting of the Eighth District Branch, with the President, Dr. George W. Cottis, in the Chair. (The Eighth District Branch began its meetings in the fall of 1906, the first year of the reorganized State Medical Society. The other District Branches began their meetings in 1907 and so the number of their meetings is one less than that of the Eighth District. **Editorial note.)**

Dr. James E. Sadlier, President of the Medical Society of the State of New York, in his official address, spoke of the vital problems now before the parent organization, and of the duties and responsibilities of every county and district branch society to help in their solution. He emphasized the fact that the public is demonstrating a keen appreciation of the progress of organized medicine by supplying funds for the erection and maintenance of hospitals and the multiplication of clinics.

Dr. John A. Card, Vice-Speaker of the House of Delegates of the State Medical Society, assured the members that their officers had no thought of increasing the individual assessment as a result of the increased activities of the Society. He said the Trustees of the Society carefully guard against extravagance in the expenditure of funds. He spoke of the task of re-writing the by-laws, and said the committee in charge of the work will appreciate constructive suggestions from members. He asked members to send news items to Dr. Orrin S. Wightman, editor-in-chief of the State Journal. Dr. Wightman, he said, is anxious to improve the service for gathering news of interest to the medical profession of the entire State.

Dr. Card remarked that in the annual registration of physicians with the State Department of Education, more than 2000 doctors had made themselves liable to a penalty by failure to register in 1926. He brought out the fact that the Committee on Grievances, created by the recent amendment to the Public Health Law, is not a committee of the Society, but its members are appointed by the Regents, and the State Society acts only in an advisory capacity.

Dr. Edgar W. Phillips of Rochester gave an address on "Surgical Aids in the Treatment of Pulmonary Tuberculosis", and the paper was illustrated with lantern slides.

Dr. C. Ward Crampton of New York gave a paper on "The Proper Examination of Apparently Healthy Persons", accompanied by a demonstration of the diagnostic procedure on a living subject. He explained the difference between a health examination and a disease examination, and stated that the physician's office is the place for an ideal examination. He said that by means of these examinations the average span of life has been extended from 35 years to 58 years, and that disease can be discovered long before the patient becomes a patient. He declared that health examinations are not successful when fostered and pulled along by some charitable organization. The examination is successful, he said, when the physician is adequately paid for such service, and asserted that health examinations increase the demand for minor repair work by specialists. He said that of 2000 examinations made at the New York Post-Graduate Medical School and Hospital, 1200 references of cases had been made to physicians. He cautioned doctors not to halt the examination when they heard a heart murmur or discovered a fibrous condition of the lungs, but to go through with the entire routine and send the individual on his way in a happy frame of mind, and yet convinced that he needs medical attention when conditions warrant treatment. He described pre-clinical signs as age-producing signs caused by toxin-producing conditions, and called attention to the difference in blood pressure while the patient is in a standing position and while he is in a lying posture.

Dr. Robert H. Halsey of New York, spoke on "Some New Problems in Heart Disease", which, he said, were really new aspects of old problems. He stated that the death rate from heart disease in New York State, according to population, is the second highest in the United States. Rheumatic infection constitutes over 55% of mortality from heart disease, and it is a relatively fatal disease for persons between the ages of 15 and 25 years. Most rheumatics die before the age of forty. Dr. Halsey dwelt at length on the etiological factors of heart disease. Rheumatic infection, he said, includes rheumatic fever, acute tonsillitis, chorea, and streptococcus infection. He urged physicians to recognize the source of infections which do damage to the heart and to put it down on the death certificate. Get autopsies whenever possible and make known the etiological factors. Such reports will aid the committee of the State Society engaged in a study of etiology of heart disease.

Dr. Halsey's talk was discussed by Dr. Nelson G. Russell and Dr. Thomas J. Walsh of Buffalo.

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, of the State Society, gave a short address on the relation of the general medical practitioner to public health activities. He urged every county medical society to appoint a public health committee which shall dominate health work in the county;—not boss, but lead, he said. Dr. Farmer emphasized the importance of publicity as a means of promoting post-graduate work conducted under the auspices of the county medical society.

Dr. George J. Eckel, President of the Buffalo Academy of Medicine, invited members of the Society in counties adjacent to Erie to become non-resident fellows of the Buffalo Academy of Medicine. He pointed out the advantages of closer cooperation between county medical societies and an institution devoted chiefly to scientific medicine.

The following officers were elected for two years beginning at the close of the annual meeting of the State Medical Society: President, Dr. Thomas J. Walsh, Buffalo; First Vice-President, Dr. W. Ross Thomson, Warsaw; Second Vice-President, Dr. Raymond B. Morris, Olean; Secretary, Dr. W. Warren Britt, Tonawanda; Assistant Secretary, Dr. Russell H. Wilcox, Tonawanda; Treasurer, Dr. Fitch H. Van Orsdale, Belmont.

At the close of the meeting of the District Branch, Dr. Harry R. Trick, President-elect of the State Medical Society, delivered the dedicatory address of the George E. Skiff Memorial Laboratory, and said in part: "Dr. Skiff died, aged 31, on August 9, 1925, as a result of an infection contracted in his line of duty. He graduated in Medicine in 1920 from the University of Buffalo, and came to the Warsaw Hospital in the following year. He was entrusted with responsibilities beyond his years. Not infrequently he carried on the entire surgical work of the hospital. He was also entrusted with the establishment and equipment of a laboratory which should do clinical work for the hospital, and public health work for Wyoming County. His work was scarcely finished ere his end came. The reaction of the entire community to this tragic loss was the erection of a laboratory wing as a symbol of his high ideals and his devotion to duty."

> "To inherit ideals is a divine birthright;
> To acquire ideals is a supreme achievement;
> To inspire ideals is to give life;
> To vitalize ideals is a great duty;
> To bequeath ideals is a magnificent legacy."

"To Dr. Skiff, whose life exemplified these ideals, we dedicate this memorial laboratory."

FOURTH DISTRICT BRANCH MEETING

The twenty-first annual meeting of the Fourth District Branch of the Medical Society of the State of New York was held on Tuesday and Wednesday, October 11 and 12, 1927, in Schenectady. The two-day session was planned so as to accommodate those who come from a distance. Since the District comprises almost the entire northeastern section of the State, including the Adirondack region, the physicians from the northern counties would have to spend half a day to reach the meeting place and would have to stay all night. By holding the sessions on Tuesday afternoon and evening and Wednesday morning, they could attend them and still devote only two days to them.

The sessions on Tuesday afternoon were held in the Ellis Hospital. The program consisted of clinics as follows:

2 P.M.—Pathological Demonstration.
  a. "A Family of Bleeders."
  b. "Relation of the Spleen to Purpura Hemorrhagica."
2.45 P.M.—Pediatric Clinic.
  James J. York, M.D.
  Frank vander Bogert, M.D.
  Alton Goldbloom, M.D., Montreal (by invitation).
3:30 P.M.—"Fracture Cases."
  Charles McMullen, M.D.
  Charles Woodall, M.D.
  Philip D. Wilson, M.D., Boston (by invitation).

The evening meeting was held in the Mohawk Golf Club and was begun with a social dinner given by the Schenectady County Medical Society.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, gave an address on the service which the State Society can render the physicians of New York State. He referred to the ideals stated in Article I of the Constitution of the State Society, in which one great purpose was the education of the physicians, and another the enlightenment and direction of public opinion in regard to the problems of medicine. Physicians have always stood for education of their own number, but it is only in recent years that methods have been developed for the education of the public. The great problem before the Medical Societies today is that of leadership in the work of directing the public opinion—a work which physicians have permitted lay organizations to do. It is a fact that lay organizations are better equipped to carry on this work than physicians, but it is also a fact that physicians should direct the work and set the standards of that education.

The State Medical Society, through its committee on Public Relations, is rapidly developing a standardization of the fields of work of the medical societies and of the lay organizations, and the two bodies will utimately solve the problem of how to educate the public in medical matters.

Dr. Daniel S. Dougherty, Secretary of the Medical Society of the State of New York, spoke on the work of the Secretary's office. While the President and the Committees of the State Society were dealing with general principles and policies, the Secretary dealt largely with details brought up by individual doctors. Questions flowed into his office daily asking about such matters as how to register with the Board of Regents, when a meeting was to be held, how to secure a speaker for a meeting, and how to secure malpractice defense. Doctors are only mildly interested in the standardization of methods of public health work and the procedure of county societies until something occurs in which they are vitally interested, and then they seek help from the Secretary's office and it is always given. A staff of five persons is employed in the Secretary's office to keep the records of membership and to conduct the immense amount of business required in dealing with the individual doctors. It is the policy of the State Medical Society to give service to every member that asks for it, and the records on which the information is based is on file in the central office. Few members realize the immense amount of detailed work that is necessary in order that information regarding the individual members of the county societies may be instantly available when it is needed. This is the kind of service which appeals to the individual members and makes them feel that the State Society is in friendly touch with every doctor in the State.

The principal feature of the evening was a demonstration of "Making Sound Visible and Light Audible," by Mr. John B. Taylor, consulting engineer of the General Electric Company. Mr. Taylor showed lantern slide pictures of sound waves, and then gave a demonstration of the production of a record of a wavy line of light shooting back and forth on the screen as an illuminated mirror was actuated by sound waves.

Mr. Taylor also showed the record of the sound waves of an orchestra impressed on a moving picture film; and then reproduced the music of the orchestra as a beam of light passing through the film actuated a photo-electric cell which actuated a sound reproducer similar to that of a radio receiver.

The program of Wednesday morning was as follows:

9:30 A.M.—"The Importance of the Work of the Committee on Medical Education and Public Health to the Medical Profession." Thomas P. Farmer, M.D., Syracuse.
"The Costal Excursion in Health and Disease," Henry A. Bray, M.D., Ray Brook Sanitarium.
"Physicians and Intelligence Test." Ira S. Wile, M.D., New York City.
"Acute Intestinal Obstruction with Report of Cases." Lew H. Finch, M.D., Amsterdam.
"A Study of the Prognosis in Cancer of the Breast." Edwin MacD. Stanton, M.D., Schenectady.

FIFTH DISTRICT BRANCH

The twenty-first annual meeting of the Fifth District Branch of the Medical Society of the State of New York was one of the most interesting and inspiring that has ever been held.

The registered attendance was 253, including 45 medical students from the University of Syracuse, the senior class being excused from college in order that it might attend the scientific sessions. One student said that the meeting was a revelation to him; that he had no idea of the extent to which the medical education of doctors was carried after their graduation. The meeting was also an inspiration to him as it showed a spirit of comradeship among the physicians like that among the medical students at college. He suggested that a few lectures on the work of a County Medical Society would be of great benefit to the students in showing their relations to one another after they begin practice.

The scientific session consisted of two remarkable addresses: Dr. Temple Fay of Philadelphia, gave a lecture with lantern slides on "Operable Lesions of the Brain and Spinal Cord" in which he showed some of the nervous conditions which are now diagnosed and treated by operation, especially those lesions produced by carcinoma and other tumors.

Dr. John Osborn Polak of Brooklyn, gave an outline lecture with lantern slides, on "The Present Day Trend in Obstetrics and Gynecology." His lecture was an index of the conditions with which all physicians should be familiar, rather than a detailed description of any one particular lesion.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, described the policy of the State Medical Society in assisting the county societies in order to bring all up to the standard of the best. If one Society does an excellent piece of work, then all other societies should know of it and be urged to imitate it. The function of medical societies in educating physicians had been largely assumed by academies of medicine in the larger cities, and so there had sprung up one group composed of scientific leaders, and another group composed of physicians with less skill and learning along special lines—the family doctors. The tendency now is that the academies of medicine and the county medical societies should come together more closely, either by actual union or by the academies assuming the scientific education of the county societies, and the county societies taking over the practice of public health and civic medicine. The State Medical Society is assisting physicians in their programs for all lines of work.

Dr. Daniel S. Dougherty, Secretary of the Medical Society of the State of New York, told of the work the Society is doing. He said that much of the activity of his office consists in assisting county medical societies in the discussion of practical plans for their work. The State Society is engaged in a concrete *art* of the practice of organized medicine, rather than the philosophical discussion of the *science* of medicine. The State Society must produce tangible results from all its activities and avoid contention over debatable subjects.

The New York State Journal of Medicine contains a summary of things actually done by the State Society, rather than a rapid record made up of details which have only a local interest, and which are repeated over and over again as the same problems come up in different societies.

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, described the work of his committee, and urged those societies who wish to have assistance from the State Society to make their applications early, for most of the funds and available speakers were already allocated in accordance with the demands which have been made upon this committee.

The program of the evening session was as follows:

"The Development of Rheumatic Heart Disease," Samuel A. Levine, M.D., Boston, Mass. Discussion opened by I. Harris Levy, M.D., Syracuse.

"Physiotherapy in the After-Care of Industrial Accidents," Harry E. Stewart, M.D., New Haven, Conn. Discussion opened by Charles P. Hutchins, M.D., Syracuse.

"The Health Examination—Scientific and Practical Aspects," C. Ward Crampton, M.D., New York City. Discussion opened by Clifford R. Hervey, M.D., Oswego.

THE PROGRAM OF THE SECOND DISTRICT BRANCH

The Committee on Arrangements for the meeting of the Second District Branch has issued the following program, which is unique in both form and content:

The Second District Branch of the Medical Society of the State of New York is composed of Kings, Queens, Nassau and Suffolk Counties—ALL of Long Island, as any student of geography knows.

On November 9th, 1927 (mark it in your memory or ON your engagement pad) the doctors of medicine in these counties will meet at the Brooklyn Chamber of Commerce, Court and Livingston Sts., at a Dinner at 6:30 p. m., and a Meeting at 8:30 p. m. The price of the Dinner: $3. The Meeting costs: Nothing.

At the Dinner many of the good fellows of the profession on Long Island will make merry with jest and story around the festive board.

There will be no speeches—the eats will tickle the gastric mucosa of the most fastidious epicurian.

There will be no sad, out-of-tune orchestra or pink-cheeked tenors warbling off key.

Just food—good fellows—laughter—shop talk—the latest funny story and merry quip—and all for the modest three simoleons.

For years the District Branch meetings have been held at 1313 Bedford avenue, in the Library Building of the Medical Society in the County of Kings—MacNaughton Auditorium. All right as far as it went—fine medical atmosphere and all that, but at least two of the County Societies find themselves en route to the meeting at meal-time or starting toward Brooklyn before dinner, or finding it too late if they start after dinner at home. The President of the Branch wants to see all alibis for non-attendance removed, and to that end has provided a program for a meeting preceded by a dinner that cannot be missed in these days of economic pressure, public relations and what-not in the medical field.

At 8:30—four speakers—each an artist in his own field—will tell how the four County Societies have been doing good and great things for years. Hospital studies, tuberculosis prevention, cost of medical care and its relation to dispensary procedures, comparison of public and private control of syphilis, graduate medical education, development of county health work, and many other activities, are under way, completed, or beginning. In which county, and in what degree? That will be told in four short thumbnail sketches by

Ross of Suffolk,
Van Kleeck of Nassau,
Riley of Queens,
Welton of Kings.

Next Dr. James E. Sadlier, President of the Medical Society of the State of New York, will tell us about the relations of the State Medical Society to the physicians of Long Island.

And now you are going to hear something! Something to open your eyes and make you sit bolt upright in your chairs. What has gone before will be an introduction to the subject of the evening—a speaker of voice, of physique, of patriotism for his County and State, and of loyalty to his profession. With the background of reminder information of what is being done, and has been done by the constituent societies of our Branch, we will the better appreciate the situation in Cattaraugus County, as delineated by

Joseph P. Garen, M.D., President of the Medical Society of the County of Cattaraugus.

The Brooklyn Chamber of Commerce is interested in health work, has a public health committee under the chairmanship of one of our Kings County physicians, and is a participant in the Brooklyn Health Council with the Medical Society of the County of Kings.

The Long Island Chamber of Commerce is considering, with the cooperation of the medical profession, the formation of a public health committee.

The Dinner and the Meeting will be held in the new home of the Brooklyn Chamber of Commerce.

Will you be there on November ninth?

TRI-STATE CONFERENCE

The Seventh Tri-State Conference of the officers of the Medical Societies of New York, New Jersey and Pennsylvania was held on October 22 in the Hotel Seabright, Atlantic City, with Dr. Walt P. Conaway of Atlantic City, President of the Medical Society of New Jersey, presiding. Others present were:—from New Jersey, Dr. J. B. Morrison, Secretary of the Medical Society of New Jersey, Dr. E. R. Mulford, First Vice-President, Dr. Henry O. Reik, Editor of the Journal; from Pennsylvania, Dr. A. C. Morgan, President of the State Society, Dr. William Truman Sharpless, West Chester, President of the Board of Trustees of the State Society, Dr. Frank C. Hammond, Editor of the State Journal; and from New York, Dr. James E. Sadlier, President of the State Society, Dr. J. S. Lawrence, Executive Officer, and Dr. Frank Overton, Executive Editor of the State Journal.

The program consisted of a discussion of State Control of Private Hospitals, which was led by Dr. J. B. Morrison. The speaker said that a private hospital was one that did not receive public funds of any kind, either as public appropriations or as contributions, but was owned and supported by a person, or partnership, or corporation, as a business enterprise. He referred especially to hospitals which doctors establish for their own cases, and to nursing homes conducted by nurses. These hospitals are not subject to inspection or control by any official agency while, on the other hand, community hospitals are licensed and inspected by an official body of the State,—in New York by the State Board of Charities; in New Jersey by the Department of Institutions and Agencies; and in Pennsylvania by the Department of Welfare.

The American College of Surgeons is an unofficial agency that inspects hospitals and gives them ratings, but it deals with very few private hospitals in the Eastern States.

Dr. Morrison divided private hospitals into four classes:

1. Those conducted by competent physicians who measure up to the standards of the American College of Surgeons, and the College of Physicians.

2. Those conducted by men of character and ability who are not recognized by the American College of Surgery or Medicine.

3. Those conducted by physicians for the reception of their own cases. Many of these physicians are extremely individualistic, and do not mingle with their medical brethren; and no one knows the kind of treatment that they give. Nursing homes may come in this class.

4. A fourth class of private hospitals is com-

posed of those in which criminal work is done, principally abortions.

The better class of private hospitals welcome inspections of both their equipment and their methods. Their histories are well kept and are open to inspection, and all their affairs are conducted in a frank, open manner. This cannot be said of many private hospitals and nursing homes.

There is a great temptation for the operators of private hospitals to ignore histories either from simple carelessness or intentional design, but patients do not know the high standards which the medical profession expects every doctor to maintain, especially a doctor who has sufficient prestige to operate a private hospital. Inspection by an official body is necessary in order to control the private as well as the public hospitals. A definition of what hospitals are is necessary in order to frame a law regulating them. In general a hospital should be defined as any building in which two or more sick persons are intentionally placed for diagnosis or treatment.

A law regulating private hospitals was proposed for New Jersey last year but was not introduced into the Legislature. However, a law regulating the nursing homes was introduced and was passed during the closing hours of the Legislature after physicians had been assured that it would not be enacted. While the law was a step in the right direction, it was futile in that it carried no penalty for violation.

The law provided that the Commissioner of Institutions and Agencies should prepare a blank form for recording the data of every nursing home as a basis for licensing it. Commissioner Ellis had prepared an excellent form which was unusually complete and practical. It required information regarding the buildings and grounds; the equipment for giving both personal and professional care; the medical service, with names of both doctors and nurses, and the time spent in the care of patient; laboratory facilities, case records; and so on through a long detailed list of inspection items. Its defect is that it does not evaluate the personal skill and character of the physicians.

Dr. Sadlier said that he had secured information from nearly every state regarding the control of hospitals and had found that very little control was exercised over the private hospitals. The inspections by the American College of Surgeons had been the principal factor in raising the standard of public hospitals and the larger private ones. But forty-seven per cent of patients in the United States are in hospitals of less than fifty beds and these are not inspected or subjected to control.

Dr. Sadlier said he was heartily in favor of the establishment of an official system for the inspection and licensing of all hospitals and nursing homes.

Dr. Morgan favored the control of the hospitals by an official body. The American College of Surgeons was a select body whose members possessed unusual attainments and usually practiced in large hospitals. But most private hospitals were small and were conducted in communities where surgeons of unusual eminence were not available. Yet every community could produce men of ability and character who could conduct the hospital and perform operations according to high professional standards.

Dr. Hammond said that it would not be proper to assume that all private hospitals fail to conform to the highest standards of the profession. He knew private hospitals in which the owners follow the best methods and require all doctors who are associated with them to apply the same high standards. Poor histories was a common defect in the private hospitals, for their managers often seemed to think that the absence of control relieved them from the obligation of making records. One item of official control should be the requirement to keep complete records of all cases. The American College of Surgeons had been the means of educating the doctors of approved hospitals to write histories, and official control of the private hospitals would also produce histories of real value.

The conference unanimously adopted a proposition that the President of each State Society should appoint a representative to serve on a committee of three which should devise a plan for the regulation of private hospitals and should prepare a bill to be submitted to the Legislatures of the three States.

It was decided to hold the next conference in New York City some time during February. The suggestion was made that the topic for discussion be "Expert Medical Testimony".

While the formal transactions of the Convention well justify the holding of the meeting, yet the information gained in informal conversations were also of very great value.

Dr. Morgan stated in an informal conversation that the visiting of county societies had been one of his pleasurable duties as president. He had visited one society which had only fourteen members and his was the first visit that a State Officer had ever made to that Society. (See page 1222.)

Dr. Morgan also said that the system of public health administration of the State Department of Health provided for a county health officer for every county, paid by the State. These health officers were doing an excellent work in coordinating the public health work of the doctors with that of the State. He also said that in his course of lectures on therapeutics at the Temple University, he gave talks on the relation of prospective medical men to the county societies and to the public. He considered that students should be informed of the public relations which would be expected of them when they went out to practice

He stated that the Secretary of the State Society sends a monthly mimeographed letter to the secretary of each county society outlining the salient activities which had developed during the preceding month.

Dr. Sharpless told the reporter of the work of the Board of Trustees of the Medical Society of Pennsylvania. He said that the Board has been in existence for a number of years and that it dominates most of the activities of the Society.

From Dr. Reik it was learned that Mrs. E. C. Tanneyville had been engaged as his assistant with the special duties of lecturing to women's clubs. Her work promises to be of great importance in bringing medical education to the attention of the public. The Women's Auxiliaries were especially active in making dates for the lecturer. While she had been on duty only a month, already enough engagements had been made to keep her occupied for the rest of the year. The work promises to be of great interest and value in popular medical education.

SCHUYLER COUNTY MEDICAL SOCIETY

A special meeting of the Schuyler County Medical Society was held on February 8, 1927, in the Jefferson Hotel, Watkins Glen, N. Y. at the call of the President, Dr. George H. King, who occupied the chair. A quorum of the members was present and also, as guests, Dr. John W. Burton of Tompkins, Dr. William C. Stewart of Onondaga and Dr. George H. Dill of Oneida.

Reports were made by Dr. Quirk on the desire of this society to have Dr. King put upon the list of honorary members, he having passed the age of eighty; and also as Treasurer, concerning the dues paid to him for 1926 and 1927; and also regarding the death of Dr. D. A. Scutt, one of our members, and also the death of Dr. G. A. Mottram, a resident of this village. The visiting physicians were invited to be present at our meetings until they should become members, correspondence being in progress concerning these prospective additions to our number.

A communication from Dr. E. M. Gardiner, Director of the Division of Maternity, Infancy and Child Hygiene of the New York State Board of Health, calling attention to the children's health consultations, was read, and the members agreed to attend these meetings as far as possible.

Dr. Allen, as Chairman appointed to form a local committee on cancer, of the American Society for the Prevention of Cancer, asked for suggestions and started a discussion upon the topic.

Dr. Bond reported briefly upon the spontaneous recovery of a child from a wound infected with staphylococcus aureus.

Adjournment.

The adjourned Spring meeting of the Schuyler County Medical Society, delayed by the illness of the President, was held on July 29, 1927, Dr. George H. King, President, occupying the chair. A quorum being present and the minutes of the last meeting having been read and approved, a paper was read by Dr. Albert Warren Ferris, entitled "Unusual Treatment of a Case of Anemia." After discussion of the paper a report was made upon the State Medical Society Meeting of May 11, by the delegate, Dr. Ferris. A report was made on the meeting of the District Branch Medical Society by Dr. Quirk.

A report was made by the Treasurer, Dr. Quirk, upon the finances of the Society.

The following officers were then elected to the respective positon mentioned, for the following year:—Dr. Oakley A. Allen, President; Dr. William C. Stewart, Vice-President; Dr. Frederick B. Bond, Secretary; and Dr. J. M. Quirk, Treasurer.

Dr. John W. Burton was transferred from Tompkins County Medical Society, and Dr. William C. Stewart was transferred from the Onondaga Medical Society to the Schuyler County Medical Society, and Dr. Ami B. Edgar was elected unanimously to membership in the Society.

Upon motion, Dr. Albert Warren Ferris was elected Delegate to the 1928 meeting of the New York State Medical Society, to represent Schuyler County.

Upon request of the President, Dr. Frederick B. Bond related several very interesting experiences during his service as Medical Officer in the World War.

Adjournment. A. W. Ferris, M.D.

MEDICAL WARES

DRIED MILK

Milk, like many other food products, is preserved on a commercial scale in two ways: 1, by canning, and 2, by drying.

Canned milk in condensed and evaporated forms, in which some of its water has been removed, has been on the market for a generation or more, but practical methods of removing all the water and producing a dry product is of recent development. Manufacturers of dried milk have succeeded in preserving the natural taste and qualities of their products to a greater degree than have the producers of the canned forms of milk. Research laboratories are working on the problem, and it is only a question of time when satisfactory milk and cream made from the dried product will be available everywhere. Already dried milk for baby food may be bought at most drug stores.

The limit to the distance that milk can be transported in a fresh state, and to the time that it may be kept unchanged have been almost reached. Only about one-third of the price of milk to the consumer in the large cities goes to the farmer. Another third is expended for transportation and distribution under costly conditions; and it is this percentage of the cost that will enable manufacturers of dried milk to produce a product that will sell everywhere at the price of fresh milk. Bakers already make it their common practice to use dried milk in their bread and cakes. Dried milk will come into common household use as soon as the manufacturers can solve the point of its ready solubility in cold water.

Large quantities of milk are used in industries that have no connection with food. Its casein is made into the strongest known glue, and is formed into an artificial ivory which has all the qualities of gutta percha and celluloid, and is largely used for the barrels of fountain pens. A great economic advance will be made when sections remote from centers of population can turn their milk into dried milk, glue, artificial ivory, and other products which can be stored for indefinite periods of time, and yet can be quickly transported wherever it is needed.

There are two basic methods of producing dried milk. In the roller process two polished steel rollers about two feet in diameter, almost touching each other, revolve about once in four seconds. They are heated almost to the boiling point. As the milk falls between them, it is dried in a second of time to a thin film which is taken off in a continuous sheet by a knife.

In the spray process, the milk is sprayed into a heated tower in which the dried milk falls in a powder.

Physicians are especially interested in dried milk as a baby food, and they ask specific questions about it.

What is its composition?

The processes of manufacture have been perfected to such a point that every form of milk, from skimmed milk to cream, may be dried without producing an essential change in the chemistry of any constituent. The dried product has the food value,—protein, fat and sugar,—of the milk of which it is made.

What is its solubility?

Dried milk in its present forms is so readily dissolved that a mother can prepare it for food for her baby as quickly and easily as she can prepare any other food.

What is its taste?

Infants like the taste of dried milk, and make no more objection to it than to any other form of bottled food.

What is its digestibility?

Dried milk has all the digestible qualities of boiled milk. Pediatricians now prescribe boiling an infant food in order to cause the protein to be precipitated in flakes instead of masses.

What is the bacterial content of dried milk?

Since dried milk has been heated to the boiling point, it is sterile except as to spores. The bacterial count of the reconstructed milk corresponds to about 50 per c. c. of whole milk.

What is the vitamine content of dried milk?

Heat at a boiling temperature does not impair the vitamines of milk; but oxidation is likely to destroy its vitamine C,—the anti-scorbutic vitamine. The roller process subjects the milk to oxidation for only one or two seconds. The dried milk will retain its vitamines unchanged for an indefinite period if it is immediately sealed in tin cans containing nitrogen instead of air.

A further point regarding dried milk is that irradiation with ultra-violet rays will activate the milk so that it will have anti-rachitic properties which will be retained in the stored milk.

THE DAILY PRESS

THE AVERAGE MAN

Who wants to be an average man? And who is that average man? He is one whose qualities are not spectacular, but are unnoticed among thousands of other persons who have the same characteristics.

Every man is a bundle of a hundred or more characteristics. If a person has one quality to a far greater degree than his fellows, that one characteristic receives publicity, or notoriety, in the newspapers; and then the people ascribe all other desirable qualities to him, when in fact he is only an average man in all other respects, with passions and unattained ambitions like the rest of mankind.

The average man is a fictitious personage whom no one wants to be. This truly is well expressed by James J. Montague in the New York *Herald Tribune* of June 16 in the following verses:

The Average Man

(Who is found by science to be dull, prejudiced, superstitious, greedy and lazy.)

The average man is lazy,
He won't do what he ought,
His intellect is hazy,
He seldom has a thought;
He has no love of learning,
He works by fits and starts,
He has no views concerning
The sciences and arts.

He spurns the pathways leading
Ambition's arduous way,
He has no taste for reading
He's fond of vain display;
He's filled with superstition,
He loves to rave and rant
In idle repetition
Of other people's cant.

He has small education,
He is a sullen lout
Whose trifling occupation,
Is all he cares about;
And yet he's disputatious—
He thinks he's always right,
And ugly and pugnacious
And spoiling for a fight.

The average man is wholly
Concentered in himself;
His thoughts are always solely
On sports, or dames or self;
He's mean and low and hateful,
He lacks real pep and vim,
Let's you and I be grateful
That we are not like him.

This is a theoretical discussion of the "average man," but since these articles appeared, the New York daily papers of October 22nd have described an actual "average man." "Mr. R. L. Gray, who owns a one-man clothing store in Fort Madison, was picked as America's 'average man' in an ingenious survey of the country published in *The American Magazine*. Iowa was found to approximate most nearly the 'average' state and Fort Madison the 'average' city. The folk in Fort Madison themselves picked Gray as being most representative of them all, and therefore as being the 'average man.'

"The 'average man' had to talk it over with his 'average' wife and children to decide if they could get along without daddy for a day or so. Also there had to be found an average clerk to take care of the store while Roy was away.

"On the train ride to Chicago with the reporter Gray smoked two average cigars and chatted about subjects of average interest."

Mr. Gray was quoted regarding various topics concerning some of which he said:

"Locarno pact? What's that?

"Next President? Oh, probably Charley Hughes. Greatest American? Lindbergh undoubtedly.

"Mussolini? He's a good publicity man.

"Flappers? Aw, this chatter about the younger generation going to the bad is silly. The youngsters are all right."

He was then quoted regarding prohibition as saying:

"Prohibition? Yes and no. Don't drink myself, so am not specially interested."

That was a sage remark that placed him far above the average man, for he summed up all the philosophies of prohibition. The controversy over prohibition is conducted by two extreme groups. In the first place there are those who are interested in drink to the extent that they wish to have it themselves and insist on their personal rights to use it as an American citizen. On the other extreme there is a group composed of those who think that strong drink is the greatest sin of the age; that it is their duty to eradicate it from the earth. Between these two groups stands the average man who does not drink himself, and so is not especially interested in either of the other groups.

And so the search for the "average man" fails after all, for the one who was exploited is a sage and philosopher possessed of great judgment, and the ability tc express himself. But after all it is not so certain that the "average man" is a dullard, for every person possesses some sort of ability above that of his fellows. And even the one below the average may express a philosophy with a wit and clearness which would be the envy of the average reporter of a daily paper.

HOME CARE OF THE SICK

The New York *Times* of June 1 discusses the remarks of Dr. W. C. Alvarez of the Mayo Clinic at the American Medical Association on the subjects of home diet and home nursing. It says:

"Dr. Alvarez would seem at first sight to be developing a bad case of fundamentalism when he urges the superior advantages, in a good many cases, of that old-fashioned institution, the home, against the modern scientific sanatorium. For those who can afford a first-rate sanatorium he has no suggestions. For the great many who cannot, he believes that the cure will go much better 'in the home of a devoted relative.' This is badly, sadly mid-Victorian. Are there such things as quiet homes to be found in the jazz age? Is the 'devoted relative' not utterly extinct in an age of self-expression?

"The speaker evidently believes that the species survives. He assumes that there are still mothers and wives who are willing to take trouble in a sick-room. He further assumes that affection is not necessarily incompatible with intelligence, or, at any rate, that affection plus moderate skill will balance the trained ministrations of nurses. As between a good hospital nurse who will wake an insomnia patient at 7 in the morning in order to make ready for the doctor's inspection and a maiden aunt who will let you sleep till nine, Dr. Alvarez prefers the maiden aunt."

Family physicians will say "Amen" to all this.

HAPPINESS OF THE INSANE

It is the popular opinion that those mentally deranged must necessarily suffer continual mental torments. This opinion has been derived largely from the symptoms of acute mania—a condition seen but seldom. As a matter of fact, a derangement of mental faculties lessens the capacity of suffering, as it does other psychological acts. The New York *Sun* of August 25 has a news item regarding this point as it quotes from an article in *Psychology* magazine, by Dr. George A. Smith, Superintendent of the Central Islip State Hospital. The *Sun,* quoting Dr. Smith, says:

"It is not necessary to pity the insane; sixty per cent of them are far happier than their normal brethren.

"The sane person even though he possesses happiness is always confronted by struggle, by the necessity of solving problems. He must face reality. The insane person has escaped reality. Insanity really means escape—escape into phantasy. The insane person is living in a world of his own delusions, and in the majority of cases they are pleasurable delusions. It's a saying among my doctors that the happy people are inside the institution, the unhappy outside.

"Many of our 'trusties,' dementia praecox cases, with certain fixed delusions but otherwise apparently normal, are among the happiest people I have ever seen. They regard the institution as home. If we opened the doors and told them to go they wouldn't budge."

People are beginning to realize that an insane asylum is in fact a hospital for treating mental cases; and they are seeking treatment in increasing numbers. One great reason in producing the increase in the number of patients is the fact that the patients are happy and contented while they are under treatment, and are conscious of their progressive improvement.

Physicians have the responsibility of teaching the people regarding the manner of treating patients in the mental hospitals, and the mode of life that the patients lead.

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

Potassium and Tartrates. A Review of the Literature on Their Physiological Effects. By Ralph W. Webster, Ph.D., M.D. With a digest and bibliography of the literature by W. A. Brennan, A.B. 12mo of 168 pages. Chicago, The Commonwealth Press, 1927. Cloth, $2.50.

Manual of Diseases of the Eye for Students and General Practitioners. By Charles H. May, M.D. 12th Edition, revised. 12mo of 445 pages, with 374 original illustrations. New York, William Wood and Company, 1927. Cloth, $4.00.

Physical Diagnosis. By Richard C. Cabot, M.D. 9th Edition, revised. Octavo of 536 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.00.

Compendium of Regional Diagnosis in Affections of the Brain and Spinal Cord. A concise introduction to the principles of clinical localization in diseases and injuries of the central nervous system. By Robert Bing. Translated from the sixth German edition by F. S. Arnold, B.A., M.D. 3rd Edition, revised. Octavo of 204 pages, with 102 illustrations. St. Louis, C. V. Mosby Company, 1927. Cloth, $6.00.

The Medical Department of the United States Army in the World War. Prepared under the direction of Maj. Gen. M. W. Ireland. Volume II. Administration American Expeditionary Forces. By Colonel Joseph H. Ford, M.C. Royal octavo of 1123 pages, illustrated. United States Government Printing Office, 1927.

Medical Clinics of North America. Volume 11, Number 2. September, 1927. (St. Louis Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

A Text-Book of Histology. Arranged Upon an Embryological Basis. By Dr. Frederic T. Lewis and Dr. J. L. Bremer. This is a revision of the second edition of Lewis and Stohr's Textbook of Histology, based on the fifteenth German edition of Stohr's Histology. Octavo of 551 pages, with 485 illustrations. Philadelphia, P. Blakiston's Son & Company, 1927. Cloth, $6.00.

Hospital Law. By John A. Lapp and Dorothy Ketcham. Octavo of 557 pages. Milwaukee, Wisconsin, The Bruce Publishing Company, 1926. Cloth, $8.00.

Surgical Clinics of North America. Vol. 7, No. 1. February, 1927. Cancer I.
Vol. 7, No. 2. April, 1927. Cancer II.
Vol. 7, No. 3. June, 1927. Cancer III. (Chicago Number.)
Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Fistula of the Anus and Rectum. By Charles John Drueck, M.D. Octavo of 318 pages, with 66 illustrations. Philadelphia, F. A. Davis Company, 1927. Cloth, $3.50.

Feeding and the Nutritional Disorders in Infancy and Childhood. By Julius H. Hess, M.D. 5th Edition, revised. Octavo of 566 pages, illustrated. Philadelphia, F. A. Davis Company, 1927. Cloth, $4.50.

Surgical Diseases of the Gall-Bladder, Liver and Pancreas and their Treatment. By Moses Behrend, A.M., M.D. Octavo of 278 pages, illustrated. Philadelphia, F. A. Davis Company, 1927. Cloth, $4.00.

Cancer Control. Report of an International Symposium Held under the Auspices of the American Society for the Control of Cancer, Lake Mohonk, New York, September 20-24, 1926. Octavo of 336 pages. The Surgical Publishing Company of Chicago, 1927.

The Science and Practice of Surgery. By W. H. C. Romanis, M.A., M.D., and Philip H. Mitchiner, M.D. Two Volumes. Vol. 1—General Surgery. Octavo of 795 pages, with 666 illustrations. Vol. 2—Regional Surgery. Octavo of 955 pages, with 666 illustrations. New York, William Wood and Company, 1927. Cloth, $12.00.

Recent Advances in Biochemistry. By John Pryde, B.Sc., M.Sc. Octavo of 348 pages, with 38 illustrations. Philadelphia, P. Blakiston's Son & Company, 1926. Cloth, $3.50.

Blood-Pressure: Its Clinical Applications. By George Wm. Norris, A.M., M.D., Henry C. Bazett, M.B., and Thomas M. McMillan, A.B., M.D. 4th Edition, revised. Octavo of 387 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $4.50.

Surgery: Its Principles and Practice. For Students and Practitioners. By Astley Paston Cooper Ashhurst, A.B., M.D. 3rd Edition, revised. Octavo of 1179 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $10.00.

A Treatise on Orthopaedic Surgery. By Royal Whitman, M.D. 8th Edition, revised. Octavo of 1051 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $9.00.

Modern Medicine. Its Theory and Practice in Original Contributions by American and Foreign Authors. Edited by Sir William Osler, Bart., M.D. Third Edition, thoroughly revised. Re-edited by Thomas McCrae, M.D. Assisted by Elmer H. Funk, M.D. Volume 5. Diseases of the Blood—Diseases of the Lymphatic System—Diseases of the Ductless Glands—Diseases of the Urinary System—Vasomotor and Trophic Disorders—Diseases of the Locomotor System. Octavo of 948 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $9.00.

A Text-Book of Therapeutics. Including the Essentials of Pharmacology and Materia Medica. By A. A. Stevens, A.M., M.D. 7th Edition, reset. Octavo of 758 pages. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $6.50.

Bronchoscopy and Esophagoscopy. A Manual of Peroral Endoscopy and Laryngeal Surgery. By Chevalier Jackson, M.D. 2nd Edition, reset. Octavo of 457 pages, with 179 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $8.00.

Clinical Diagnosis by Laboratory Methods. A Working Manual of Clinical Pathology. By James Campbell Todd, Ph.B., M.D., and Arthur Hawley Sanford, A.M., M.D. 6th Edition, revised. Octavo of 748 pages, with 346 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $6.00.

BOOK REVIEWS

Immunity in Syphilis. By Alan M. Chesney. Octavo of 85 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50. (Medicine Monographs Volume XII.)

This monograph reviews the subject of immunity in syphilis as set forth in recent literature in great detail. As a result of this critical inquiry, the conclusions are in the main negative, except that there is an acquired resistance, more or less complete, in both experimental animals and man to secondary syphilitic infection after the primary infection has been present a few weeks. Whether this is due to an uncured latent focus or to an acquired immunity which persists in the absence of the disease, is left an unsettled question by the author; but the weight of evidence seems to be with the latter premise.

The book is well written and is a worth-while review of the modern literature on syphilitic immunology.

John C. Graham.

Tropical Surgery and Surgical Pathology. By Karuna K. Chatterji, F.R.C.S.I. With a foreword by Sir R. Havelock Charles. Octavo of 244 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

The author, who has had a wide experience in some of the larger hospitals in India, and Europe, clearly describes the surgical conditions peculiar to the tropics. The difference in predisposition to disease of the natives of India and of the newcomers is discussed at length. The surgical diseases due to filarial infection, amebiasis are clearly presented. The various forms of granulomata as they occur in the Far East are excellently illustrated. There is also a description of the several ilio-inguinal forms of swelling, their progress and growth as they occur in the tropics. The various forms of hernia are well described, and the drawings are wonderfully clear.

E. H. Nidish.

A Manual of Gynecology. By John Osborn Polak, M.Sc., M.D. 3rd Edition, thoroughly revised. Octavo of 402 pages, illustrated. Philadelphia, Lea and Febiger, 1927. Cloth, $5.00.

This edition of Polak's well known and justly popular manual has been revised and made to include all the more important recent additions to the general subject of gynecology—such as symptomatology, pathology, diagnosis and treatment. A brief summary on the glands of internal secretion and their relation to the sexual organs has been added.

As in former editions of the Manual, the subject matter is very well arranged, giving in outline only the salient facts. It has been "boiled down" remarkably well. Nothing has been "padded." All theoretical discussions have been omitted. Only a few of the well known successful operative procedures have been described. All undergraduate students and many practitioners have no need for a Manual of operative procedures. These, therefore, have purposely been omitted.

After "all is said and done," diagnosis is the most important phase of any department of medicine and this Manual fulfills the need for gynecology very admirably.

H. B. M.

Pulmonary Tuberculosis. By G. T. Hebert, M.A., M.D. 12mo of 212 pages. New York and London, Longmans, Green and Company, 1927. Cloth, $3.00.

This two-hundred page octavo size book is intended by the author "chiefly for senior students studying for examination or taking a post-graduate course, and for the general practitioner. The earlier chapters are intended for the student beginning his clinical course."

It is with much modesty these intentions are declared. Any physician mastering all the knowledge therein contained and devoting some time to the practical application of it, will be possessed of great skill in the care of tuberculous patients.

No special original matter is introduced. The finer, still unsettled points of this disease are not dwelt upon but no essential matter is omitted. On the elements entering into the diagnosis and care of these patients, the author places a proper evaluation, crediting history, physical and special examinations, X-ray and other laboratory work justly but emphasizing the need of *all* and *thoroughness* in their use.

In compressing so much into small space, the author has not omitted important parts, but has succeeded by logical arrangement in groups and has explained it all in exact nomenclature and in a style clear, forcible and pleasing.

Prognosis for the patient in England is apparently not as rosy as many of our books tell us it is in this country. However, those here who have charge of many moderately and far advanced cases have hearts very often sad and discouraged. Treatment in this book is not neglected and plans along the lines of which the real cure must be sought are indicated.

Every doctor whose work includes care of patients with pulmonary tuberculosis will be made glad with the reading of this book.

T. A. McG.

Manual of Bacteriology. By Robert Muir, M.A., M.D., and the late James Ritchie, M.A., M.D. 8th Edition. Revised with the co-operation of Carl H. Browning, M.D., and Thomas J. Mackie, M.D. 12mo of 821 pages, illustrated. New York and London, Oxford University Press, 1927. Cloth, $4.75. (Oxford Medical Publications.)

Perhaps the best commentary one can make upon this text-book is that it was first published in 1897 and now appears in its eighth edition. A text-book must have merit to survive for thirty years.

Prof. Ritchie having died, Prof. Muir has been assisted in the revision of this edition by Profs. Browning and Mackie, who are well known in this country for their researches.

This edition has been brought as completely up-to-date as possible. One notes that much space has been given to description of technical methods which are steadily improving. Recent advances in knowledge of bacteriophage, tularemia, Malta fever, Rickettsia and encephalitis are included. The pathogenic fungi and protozoa are adequately described.

E. B. Smith.

A Manual of Materia Medica for Medical Students. By E. Quin Thornton, M.D. Second Edition, thoroughly revised. Octavo of 384 pages. Philadelphia, Lea and Febiger, 1927. Cloth, $4.50.

This second edition of Dr. Thornton's manual is in accord with the new pharmacopoeia, but, in other respects, has all the characteristics of its predecessor—accuracy, sufficiency, brevity and a general utility that makes it a good book to possess. It is refreshing to note the tendency in the modern books on Materia Medica toward an elimination of that long list of purely empiric remedies that cluttered up the pages of the books of yesterday! But one wonders if we are introducing in their place an equally long list of synthetics.

M. F. De L.

OUR NEIGHBORS

PRESIDENT'S ADDRESS, MEDICAL SOCIETY OF PENNSYLVANIA

The address of Dr. Arthur C. Morgan, president of the Medical Society of the State of Pennsylvania before the general meeting of the society on October 4, at Pittsburgh, is printed in the October issue of the *Atlantic Medical Journal,* the organ of the State Society. It is interesting to the physicians of New York State because it reveals the ideals and realizations of the leader of the medical profession of a sister state.

Concerning the meetings in the Councilor Districts, which are analogous to the District Branches in New York State, Dr. Morgan says:

"The attendance, interest, scientific programs, and good-fellowship that have marked the many councilor district meetings at which it has been our good fortune to be present, serve to indicate the live appreciation by our membership of the good that results from contact with their fellows. The by-laws stipulate that one or more district meetings shall be held each year. The routine work connected with the notices and details are well entrusted to our State Society secretary who performs these duties with promptness and dispatch. Some geographical sections hold annual clinic days, and these likewise are largely attended. A whole day spent in this laudable manner brings great reward. It may be well, however, to bear in mind that the councilor district meetings should not be neglected, but that the same effort put forth will bring equal results in each instance."

Concerning the smaller county societies the President says: "The populous and well-organized county society is under obligation to its less favored neighbor. In this State there are societies with small membership adjacent to those rich in numbers and influence but unable to undergo the expense of providing programs. It may be that arrangement with the stronger unit could be made for printing the programs and personal items of the smaller body, and the circulation of the combined programs would serve the double purpose of a wider range of dissemination and a reminder to look after the needy one. Another way by which the smaller county societies may be helped would be by the publication of a bulletin issued at regular intervals from the office of the State Society secretary, incorporating the programs and items of interest from all societies that do not print their own local bulletin. This could be made a clearing house in many respects, and would lead to interchange of speakers, programs, and suggestions that would justify the moderate expense involved."

The President discussed the Tri-State Conference as follows:

"Three years ago an organization was effected for quarterly conferences between the chief officers of the State Societies of New Jersey, New York, and Pennsylvania, with much good resulting therefrom. We are honored by having at this session of the Society several of the officers from those and other States as our guests, and we herewith tender to them a cordial welcome and greeting. Your House of Delegates has properly agreed to care for the financial outlay necessary for the officers of this State to function at these conferences. We can say with candor that the efforts put forth in this direction will bring rich return, for there has come a clarity of understanding, a mutual pooling of interests, unity of purpose, and cooperation that will serve to promote close association between the States represented which, in turn, will be of immense value when it becomes necessary to advocate new, or change old methods of working." (See page 1214.)

The no diphtheria campaign is described as follows:

"Much progress has been made in the fight for diphtheria prevention, and the slogan "No diphtheria by 1930" is not an idle dream. To Cambria County goes the honor for having shown the greatest interest in this work. Credit is also given to cooperation by the State health authorities. Preliminary education of the public through the Red Cross and other organizations paved the way for the success of the campaign. Toxin-antitoxin was furnished by the Health Department at Harrisburg. What has been done by Cambria County can be repeated elsewhere. They report as follows: "The Red Cross does the detail work, collects the fees, the State Health Department furnishes the toxin-antitoxin, but our members are paid $25 a day for their work. Members are called in alphabetical order and given an opportunity to do immunization work. It is team work that has made our campaign a success."

Plans to increase the scope of the State *Journal* are described as follows:

"The *Atlantic Medical Journal* continues to hold high place in the ranks of state journals, under the watchful care and guidance of Editor Hammond. Negotiations are under way looking to a hoped-for inclusion of other coast states in enlarging the scope of the *Journal,* as indicated by its title "Atlantic." It is suggested that prompt record of events makes good reading matter, but when contributors delay reports for many weeks

(*Continued on page* 1224—*adv.* xvi)

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Dr. ....

Address ....

(*Continued from page* 1222)

they cannot expect to secure space that belon to more recent material. A good county socie reporter is of great value in the disseminati and exchange of information through the *Journ* that serves to act as a clearing house for t benefit of our entire membership.

"Through the courtesy of the editor of t *Atlantic Medical Journal* your president will ha the privilege of using a page in each issue. O purpose is to convey to the membership at lar such matters as it is deemed important to prese promptly rather than to defer until the ne annual session. We have at this time, therefor discussed only a few of the more important acti ities of our Society, and will invite your attentic to the monthly letters that will appear in tl *Journal.*"

The work of the Woman's Auxiliary is con mended as follows:

"The Woman's Auxiliary has made commen able progress during the past year. The orga ization is now on a working basis, is self-su porting, its meetings are well attended, ne county branches are being started, and there evidence of a healthy growth of sentiment in th direction. We are greatly indebted to the wom for their splendid response to our requests, wh pernicious legislation threatened to carry, in co ducting effective campaigns among their membe and friends that added to our strength and d feated many dangerous bills."

Dr. Morgan has this word of warning again certain organizations:

"Caution suggests investigation of the meri of organizations that seem to have the welfa of the people for their end and aim. Well-esta lished societies, such as the Red Cross, may well supported, and cooperation freely accorde Health studies, surveys, contraception teachin and the like should be shunned. The prime forc back of many of these movements will be foun to be chronic or professional office holder notoriety seekers, and those who eke out a li ing by feeding at the public trough."

MEDICAL EDUCATION OF THE PUBLIC

The October issue of the West Virgin Medical Journal has the following editorial d scription of a plan of the State Medical Associ tion to supply speakers at luncheon clubs throug out the state:

"A new method or plan of getting the messag of scientific medicine across to the lay public h been recently worked out by the Committee o Public Relations of the West Virginia Sta Medical Association. The plan is unique in eve respect and deserves the whole-hearted suppo of every member of the state society.

(*Continued on page* 1225—*adv.* xvii)

(*Continued from page* 1124—*adv.* xvi)

"According to Dr. J. R. Shultz of Charleston, iairman of the professional relations committee, ie new method embraces every luncheon club in /est Virginia and the message of scientific edicine will be "put over" by some twenty or iirty "doctor speakers" in the state association. he business of recruiting these "doctor speakers" is already been started and is meeting with olendid success.

"According to details already worked out, each ncheon club program committee in West Virnia will shortly be notified that our state edical association has available speakers whose rvices can be obtained for the asking. The otification will set forth that the speakers have ready prepared talks on the relation of the iysicians and the public and will ask that all reiests for speakers be sent to the executive secrery at Charleston.

"It is the hope of the committee on professional lations that about twenty-five speakers can be otained in the medical ranks and that they will located in the various cities and towns throught the state. When this is accomplished, if a quest for a speaker is received from the Spencer otary Club, a speaker from Parkersburg will be otified to attend; if from Princeton, a speaker om Bluefield will be notified to attend; but ver, according to Dr. Shultz, will a speaker be lowed to talk in his own home city.

"The results to be accomplished from such a an are two-fold. In the first place the message medicine to the lay public will be handed out select audiences throughout the state. In the cond place, the newspapers that cover the ncheon club meetings will carry the message in eir columns the next day to their general aders. Surely such a plan should be given the nqualified support of the members of the asciation."

The plan of presenting medical subjects to lay idiences appeals to the physicians of New York tate and has been in operation unofficially for ears. The experience of New York State is that hysicians are well received in their own comunities. In fact, they resent the importation f an outside speaker when a local one is available. is not quite clear why a speaker will not be llowed to talk in his own home city in West irginia.

MALARIA DISAPPEARING

Can malaria be prevented? The medical proession of Georgia believes that its prevention not only a possibility but is an actuality in iat state. Read the following editorial in the)ctober issue of the *Journal of the Medical Asociation* of Georgia:

(*Continued on page* 1226—*adv.* xviii)

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(*Continued from page* 1225—*adv.* xvii)

"It is evidence of the progress made by preventive medicine in these parts that a disease which a few years ago was so prevalent that some communities looked forward to periodic chills and fever as a matter of course, should now deserve the above title by Dr. C. C. Bass in the April number of the *New Orleans Medical and Surgical Journal.*

"He states that, whereas ten years ago the wards of the Charity Hospital of Louisiana at New Orleans were seldom without numbers of patients with malaria, at the present time such cases are so rare that it is difficult to find sufficient material through the year to demonstrate the infection to the medical students. He notes that among the factors contributing to the elimination of the disease are: first, the clearing and draining of lands for agricultural purposes; second, the widespread knowledge that it is transmitted by mosquitoes and the measures taken to prevent infection through their bites, and third, the intensive and intelligent use of quinine.

"A fourth and essential factor, universally recognized, is the contribution made by Dr. Bass himself as head of the National Malaria Committee, and his success in culturing the plasmodia in artificial media.

"An idea of the extent of the decline is given by Dr. F. M. Johns who in discussing the subject stated that among two hundred fifty-nine smears examined for malaria in a year's time only one showed the plasmodia. In three years at Wesley Memorial Hospital in Atlanta only three cases were found in the laboratory.

"These findings and the well-known fact that practicing physicians generally are seeing so much less of the infection should remind us that the essential factor in diagnosis is the demonstration of the parasite in blood smears.

"Our State Board of Health laboratories are well equipped to render this service.

"It is to be hoped that through the co-operation of the public health officials and the practitioners of the state it will not be long until that disease that at one time was a scourge in many southern localities will be a thing of the past."

ORGANIZATION WORK

Some counties of New York State have so few physicians that their County Medical Societies have a struggle for existence; but that condition is still more acute in some of the southern states. The August *Journal* of the Tennessee State Medical Association suggests a remedy in the following editorial:

"The results from combining a number of

(*Continued on page* 1227—*adv.* xix)

(*Continued from page* 1226—*adv.* xviii)

small counties into one medical organization are so very excellent that we would now urge small counties which are functioning independently to combine with other adjoining counties for the purpose of programs only.

"It is exceedingly rare for a county with a small number of doctors to have a good medical organization. A slight division of opinion among six or eight doctors is enough to destroy the organization, whereas if the small number of doctors in one county combine with a small number in another county the differences are obliterated by numbers and the whole number enters into the spirit of the organization whole heartedly. We would heartily recommend this plan for the consideration of all small counties.

"All of the large blocks of counties that were unorganized two months ago are organized today. There are, however, several counties still unorganized. Some of the doctors of these unorganized counties are members of societies of adjoining counties.

"Our investigations have revealed that there are a number of doctors residing in counties that are organized who are not members of a county society. We wish to urge that effort be put forth to bring into organized medicine every eligible white doctor in the state. This office will put forth every effort in cooperation that is possible. Our membership today numbers 1542. We wish to build it up to at least 1700 in the next two or three months."

COUNTY MEDICAL SOCIETY REPORTS IN NEW JERSEY

New Jersey seems to be far ahead of New York State in the record of the *Journal* of the Medical Society of New Jersey in securing reports from the County Medical Societies. The annual report of the editor, Dr. Henry O. Reik, printed in the supplement of the August *Journal*, says:

"The county society reports have become a valuable asset to the *Journal*. We are able to report that practically every county medical society meeting held in this state during the past two years has been published in the *Journal* within a month after the date of its deliberations. We know of no other state journal that can touch that record, and right here we desire to express our hearty appreciation of the work of the reporters of the county societies and to thank them for the manner in which they have complied with our requests for prompt and comprehensive reports of proceedings. The literary, scientific and educational value of these reports varies

(*Continued on page* 1228—*adv.* xx)

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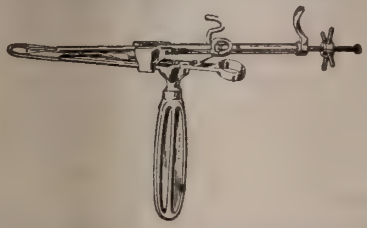

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CHESTER F. DURYEA, M.D.
DIRECTOR

(*Continued from page* 1227—*adv.* xix)

somewhat according to the ability of the individual reporters but, on the whole, the material published is considered valuable because: (a) it shows what each component society is doing; (b) keeps all the members throughout the state informed as to progress in local districts; (c) in many instances it adds to the rocords of scientific medicine material that is quite as valuable as much that is printed under the head of original articles. This department of the *Journal* should, we believe, be further developed rather than curtailed on account of available space."

Compare this record with that of New York State reported on page 1074 of the October first issue of this Journal.

A STATE FAIR EXHIBIT

The Nebraska State Medical Association put on an exhibit at the State Fair, according to the following editorial description in the October issue of the Nebraska State Medical *Journal*:

"The prevision of the Council who sponsored the idea of a health exhibit at the State Fair is justified by the results and already plans are in the making for a better and larger exhibit for the 1928 State Fair. It will be recalled that the House of Delegates at the last annual meeting, on recommendation of the Council, appropriat $500 for an exhibit at the State Fair and a pointed a committee to develop and carry out tl intent of the motion. The exhibit which occupi two adjoining booths consisted of pathologic specimens from Creighton and Nebraska Sta Universities Medical Colleges; the paleopat ological collection of Dr. F. B. Young, of Gerin placards from Creighton and Nebraska Univers ties and the State Bureau of Health; and a c lection of biological products from Mulford.

"Lectures were given almost continuously groups of Fair visitors who by their attentitiv ness indicated an interest in the matter present much greater than had been anticipated. Dr. R. Hays, Falls City, Dr. F. B. Young, Gering, an C. E. Leisure, senior at Creighton Universi College of Medicine, gave the talks and it estimated that five thousand people eager f information were reached. The speakers dwell on tuberculosis, typhoid, diphtheria, scarlet feve focal infections, rickets and other food deficien conditions, proper diet for children and adult open air and sunshine, insect pests, and vaccin tion against small pox, diphtheria, scarlet fev and typhoid fever. Several thousand folde entitled 'Keep Well' furnished by the Nebrask State Medical Association, were distributed. Va uable assistance was given daily by two nurs furnished by the Nurses Club of Lincoln."

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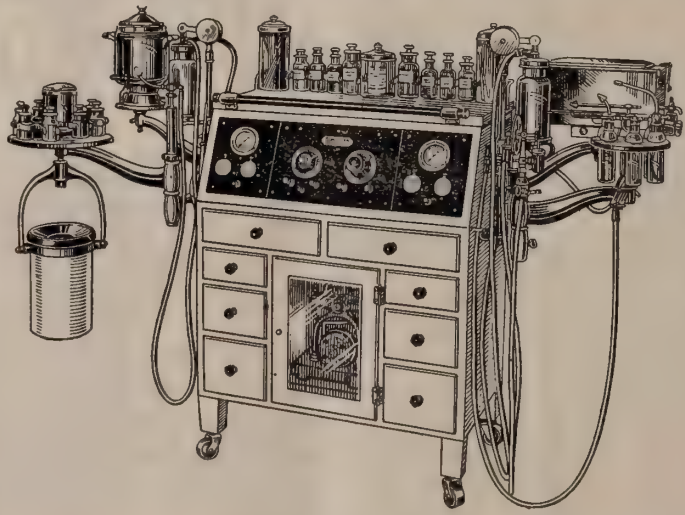

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MEDICINE AT PUBLIC HEALTH CENTERS

The October issue of the *Illi- is Medical Journal* comments litorially on the address of Dr. arlow Brooks before the con- rence on Public Health held in hicago on March 24, under the ıspices of the American Medi- l Association and reported in e July 2nd issue of the *A. M. A. urnal*. The editorial quotes Dr. rooks as follows:

"The medical profession devotes luntarily from 25 to 45 per cent its time to unremunerated per- nal charities, mostly to that rge and generally inarticulate ass of unfortunates that are the cret wards of every medical an. Misunderstandings between e profession and social activities ng the line of public health ve almost without exception iginated when physicians have en asked to abrogate and to for- t their scientific training or when eir code of ethics has been ruth- sly ignored. There is no more ason why medical ethics may t be applied in public health an in any other specialty in the edical profession. No efforts at ogress will succeed until lay or- nizations are brought to realize at the principles that have made dern medicine and the true ysicians of all times, will be up- ld.

"That the family physician has quarrel with public health ac- ities save in that as a scientist s skill and knowledge demand at he shall protest the substitu- n of amateur manipulation for illed professionalism, is a point ldom made clear.

"Has the family physician cause r resentment? Examine the ac- ities of public health centers d clinics and those of the family ysician."

Commenting on these remarks e editorial continues:

"Co-operation of honest lay dies is welcome to all physicians. But the tendencies of such organizations to put 'the cart before the horse' must be suppressed. For in every angle of the work the doctor must dominate. Such domination has made medical progress possible, and those professional standards that have literally 'made medicine' must prevail. Else there shall be chaos and loss.

"Public and private medicine must work hand in hand. There is no other sane or successful way to success. The physician in close contact with his patient is the most successful teacher of public medicine. After all the physician is the mouthpiece of medical science and when any influence belittles the teacher it destroys the doctrine. Public medicine to succeed needs the endorsement of private medicine and must not for an instant attempt to either underestimate the influence of physicians with patients, difficult as that is for a lay person to comprehend, nor to discount its value.

"From experience the medical profession believes that a license to practice should be granted only after four more years of study in an accredited school superimposed on a preliminary education of no mean extent or small cost. The public differs, principally because the public does not know. And consequently all manner of cults are backed annually by well-intentioned persons of all sorts, from the clergy to philanthropists and even financiers of repute.

"A remedy for the deplorable invasion of the terrain of medicine by the misguided ignorant public health movements lies in the work of state, county and district medical societies. In the language of the street, 'It is up to them.' Each organization and each member of these organizations needs to don sword and buckler, and get into the combat of education of the general public as to the difference between safe and sane and skilled medical service, and the visionary, half-baked, and often unethical care that emanates from lay practice and dictation of medicine."

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PHOTOTHERAPEUTICS OF DERMATOLOGY, ITS BASIC UNDERLYING PRINCIPLES*

By HERMAN GOODMAN, B.S., M.D., NEW YORK, N. Y.

I HAVE taken this opportunity to portray more or less graphically, the subject matter of the title. To begin with, I mention Newton's primary experiment with the ordinary glass prism. In a darkened room, a hole is made in the shutter, and the path of the beam of light is interrupted by a prism, held point down. On the wall, the beam of white light is decomposed into the primary colors of the spectrum from violet to red. The violet is refracted more than the red.

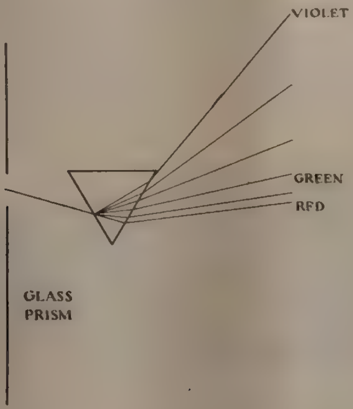

FIG. 1.—Dispersion of white light through a glass prism into the spectral colors from violet to red (visible).

In order to show that the prism does not produce the colors, one band of the decomposed light, for example, the green, is allowed to pass through a hole in a piece of cardboard, and through a second prism. No further decomposition of the green band is seen. Light of a definite position in the spectrum and hence of a definite range is called monochromatic.

I give the range of visible light in Angstrom units. It is sufficient to say that an Angstrom unit measures one two-hundred and fifty four millionths of one inch in length. Visible light ranges from 7700 in the red to 4300 in the beginning of the violet. The violet ends at 3900 A.u.

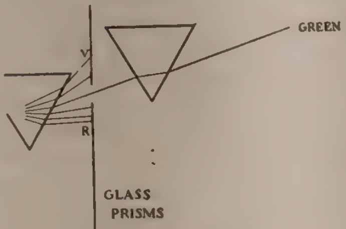

FIG. 2.—Showing the monochromatic nature of light radiation after dispersion.

If one substitutes a prism of quartz for the glass prism, one may get effects which disclose the presence of zones of radiation beyond the visible zone. It suits our purpose at this time to mention the infra red zone, which lies beyond the red end of the visible spectrum. But of greater importance to us in therapeutics is the opposite end of the spectrum, the end beyond the violet, known as the ultraviolet. The physicist has divided the regions of the ultraviolet into the near, middle and far ultraviolet.

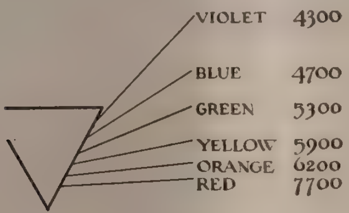

FIG. 3.—Range of visible light in Angstrom units.

As one more interested in physiology, it has occurred to me to divide the ultraviolet in another way. I have taken two set places in the ultraviolet; one the limit of natural sunlight which is at 2900 A.u.; and the second is the conventional barrier of glass to the ultraviolet which is about 3200 A.u. For purposes then of physiology, we may divide the ultraviolet

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* Read before the Section on Dermatology and Syphilology of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

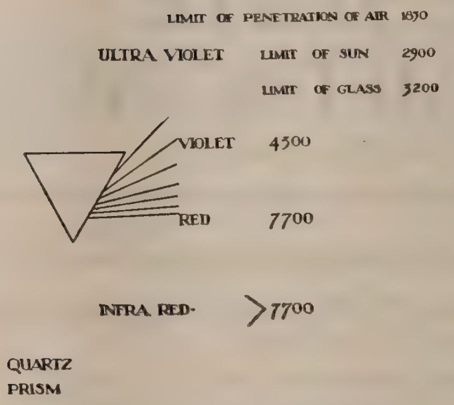

FIG. 4.—Range of ultraviolet.

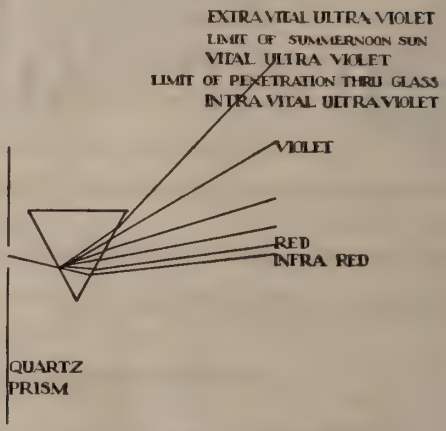

FIG. 5.—Range of ultraviolet.

from now on as intravital ultraviolet (from 3900 to 3200 A.u.) which represents the ultraviolet which passes through glass; the vital ultraviolet (from 3200 A.u. to 2900 A.u.) which is the ultraviolet present in sunlight on a summer day near noon and which does not pass through glass; and the extravital ultraviolet (below 2900 to the limit of penetrability of air about 2000 A.u.).

CHART ONE

Visible light	7700 to 3900 Angstrom units
Intravital ultraviolet	3900 to 3200 Angstrom units
Vital ultraviolet	3200 to 2900 Angstrom units
Extravital ultraviolet	2900 to 2000 Angstrom units

were brought up under the same food conditions. The significant thing is that the smalle of the two chicks had been kept inside a glas cage, while its brother was allowed the freedom of the sunlit yard; the small one i stunted.

The zone which has been found necessar for the normal growth of chicks is the sam zone which is necessary for the health o babies. In this zone are the radiations necessary for sunburn and suntanning. The zon from 2900 to 3200 A.u., has the essential band for the prevention of rickets on a ricket producing diet. This same zone is the one which affects the calcium metabolism of pregnant women. And it is in this self same zone that some of the lines are present which act on the precursor of the antiricketic vitamin present in non-active cholesterol.

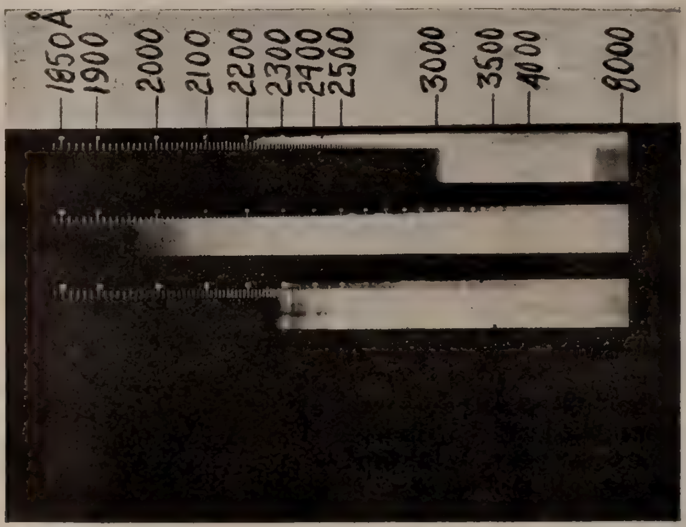

FIG. 6.—Qualitative limits of ultraviolet from sunlight (April); mercury vapor arc in quartz; and carbon arc (laboratory model).

The laboratory gives us spectrograms of the qualitative emissions of the sun, the mercury vapor arc in quartz, and the ordinary carbon arc for comparison. Note the lowest limits in the ultraviolet of each of these sources.

In Bovie's work chickens of the same brood

I mention a few sources of light in common use. The open and enclosed carbon arc; the magnetite arc developed by Steinmetz; the mercury arc; and the glass enclosed incandescent bulb; the Edison carbon filament, the tungsten and the gas bulb.

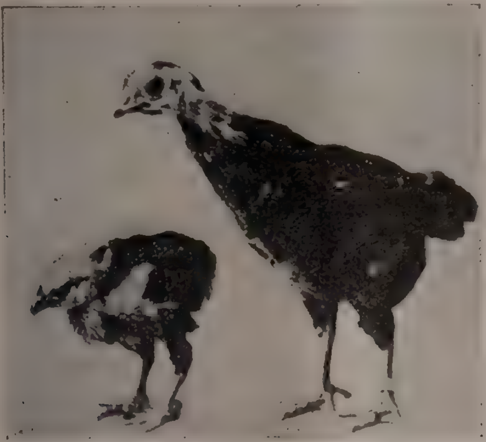

Fig. 7.—Chickens of the same hatch originally but the stunted one brought up under glass (after Bovie).

My next picture gives the starting characteristics for the mercury vapor arc in quartz as sold for therapeutic purposes. It should be noted that only after five minutes does the emission resemble full emission for unit of time. By this I mean that if one were to estimate the starting characteristics and allow for the diminished energy, one could by exposing the ignition for 100 seconds instead of ten seconds get a spectrogram which is exactly that of the lamp after ten minutes operation. Such spectrograms are given. Incidently, if one takes cognizance of the rules of physics, one finds that the feature of distance has been overstressed in the literature. Allowing for time, one can get practically the same spectrogram at 10 feet that one does at 10 inches.

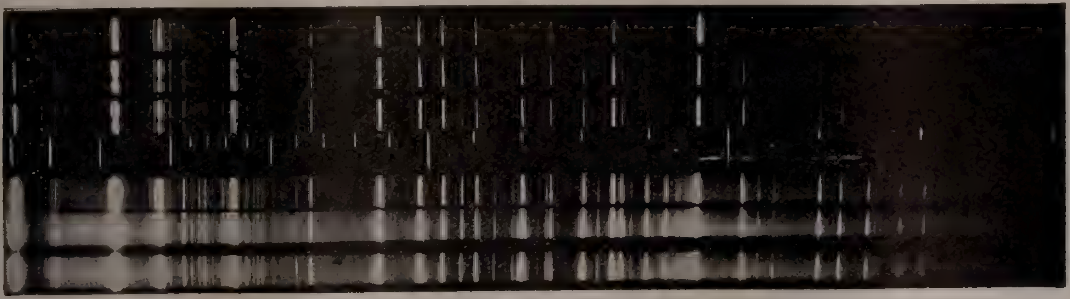

Fig. 8.—Air cooled mercury vapor arc in quartz: therapeutic model—a. at ignition; b. 20 seconds later; c. after 1 minute; d. after 5 minutes; e. after 10 minutes; f. after 30 minutes. Slit opening; time of exposure; and distance constant.

Much has been written regarding the deterioration of mercury arc in quartz burners with use. It is true that there is a deterioration and that this effects the emission of the ultraviolet to upward of fifty per cent, in the ultraviolet zone which I have called the extravital, and to a degree the vital ultraviolet emission is likewise reduced. But with the modern mercury vapor arc in quartz as sold to physicians improvements have been made which make their effective life much longer than the previously published figures indicated. I no longer stress this factor although a chart showing the deterioration according to the older estimates is worth studying.

The use of carbon arc lamps was one of the earliest procedures in phototherapy, and Finsen based his work on such a source. We have advanced far beyond the Father of Modern Phototherapy. I will merely mention that in the use of the carbon electrode we are today beyond the carbon, and in fact our modern apparatus does not utilize the arc. Today we utilize the emanation of the core or the impregnation of the carbon. At this writing we use the flame lamp rather than the crater. In the ordinary lamps we must have the proper relationship between the diameter of the carbon, impregnated or cored electrode; the current in amperes, and the voltage across the arc. When these factors are the proper ones we can and do select the emanation we desire. We can at will then give radiation rich in one or another zone of the visible, the intravital, the vital, or the extravital ultraviolet. We can get effective limits as in sunlight, or we can encroach on the ultraviolet absent in the sun's emission as it reaches this earth. We show the qualitative emissions for the sun, and the various carbons as prepared by the National Carbon Company of Cleveland, Ohio, U. S. A., under the names of Therapeutic A, B, C, to K, and for comparison the line spectrum of an iron arc and the scale in Angstrom units. The strong group of lines about 3860 A.u. are those of the cyanogen band due to the combustion of the carbon with the nitrogen. These lines are in the intravital ultraviolet and so close to the

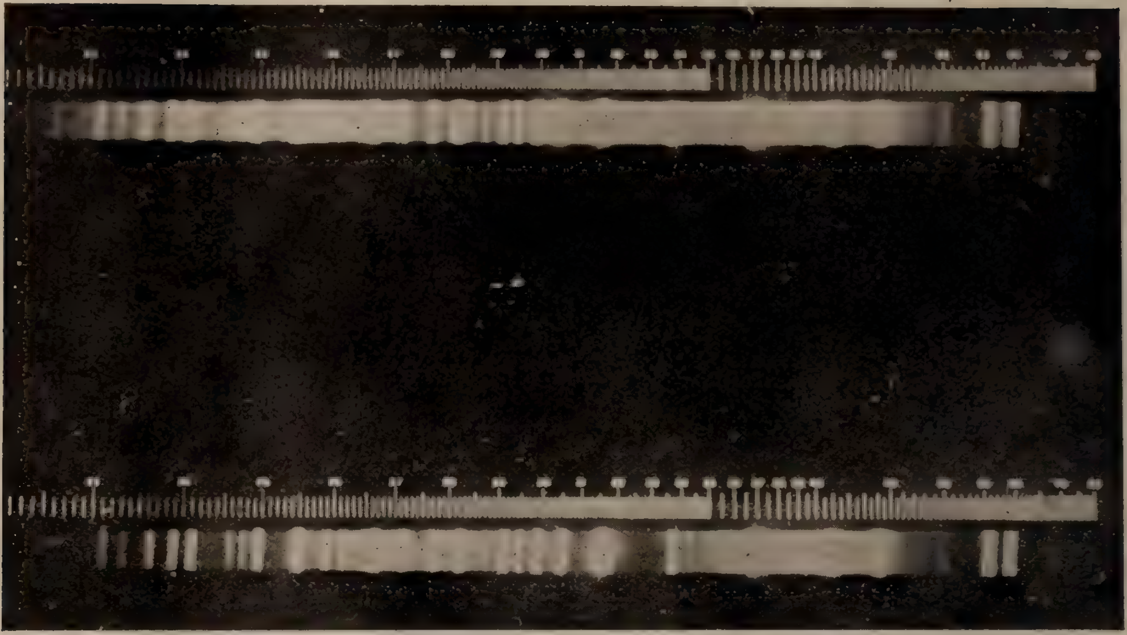

FIG. 9.—Air cooled mercury vapor arc in quartz: therapeutic model—a. at ignition; exposure time according to energy at 20-30 volts; b. 10 minutes after ignition; exposure time according to energy at 75 volts.

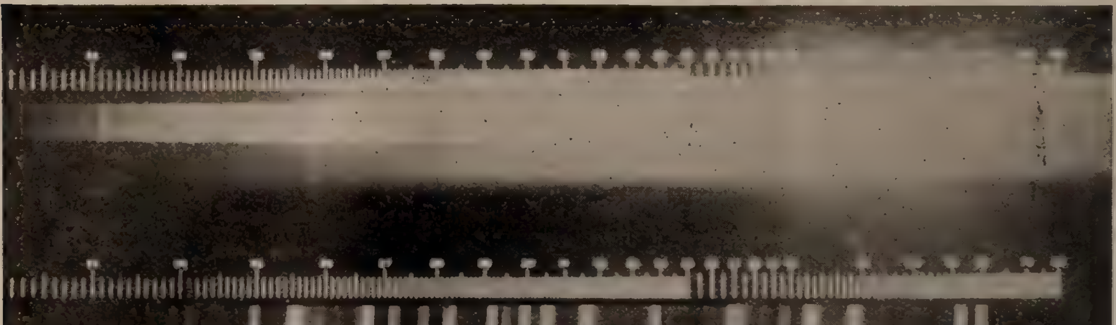

FIG. 10.—Air cooled mercury vapor arc in quartz: therapeutic model. At 10 feet from source to ten inches from source with time of exposure according to the energy incident on the plate calculated by the law of inverse squares.

visible spectrum that some persons can actually see them. It is claimed that enclosed lamps with carbon or impregnated carbons give a stronger emission in the cyanogen band than if operated as open lamps. Since the band is outside the vital ultraviolet, it would appear that this feature is not of decided benefit in our concept of vital ultraviolet.

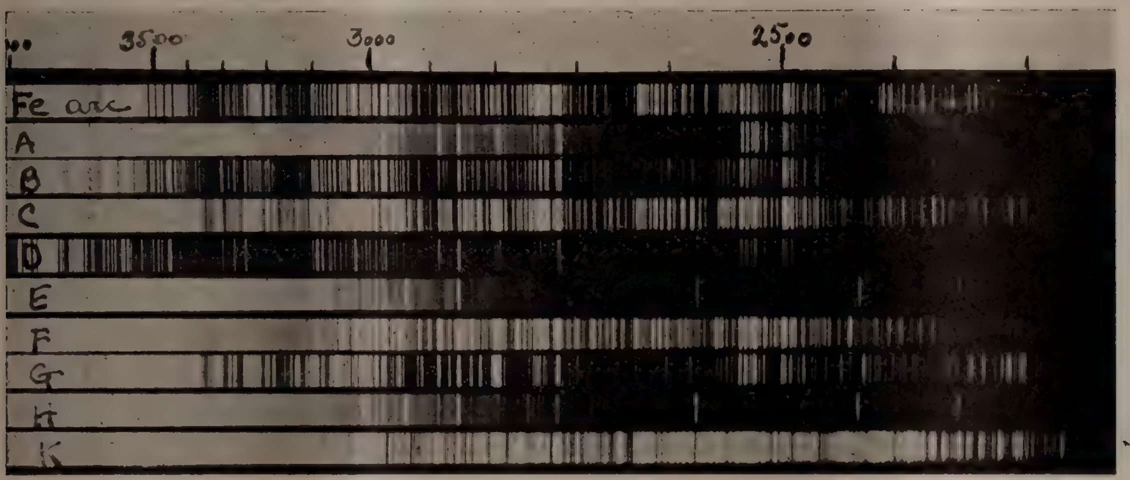

Fig. 11.—Qualitative spectrograms of iron arc; and impregnated carbons from "A" to "K."

The two most commonly used impregnated carbons at present are the "White flame" and the "Blue flame." The white flame gives much energy in the infra red (heat) visible zone, and the ultraviolet to about 2900 A.u. Comparatively little energy of wave lengths shorter than 2900 A.u. is emitted. The greatest energy emission is in the short visible and in the ultraviolet as present in sunlight. The blue flame gives off its energy through the visible zone and the ultraviolet to 2300 A.u. Properly utilized, one gets an erythema with blue flame electrodes. In some respects and at suitable amperages, the blue flame emission is somewhat similar to the emission of the mercury vapor arc in quartz, although greater energy consumption is required. Uses in medicine and surgery for the other carbons will be determined with experience.

The other countries of the world have their manufacturers at work on the problem of what I have termed "Prescription Carbons" and we will have the selection of practically any zone of emission in excess or any combination of zones. In time, the physician will have command of the emission at the source. He also will have command of what range, and how much of that range will reach his patient. By the use of filters, we will be able to limit the radiation to predetermined bands.

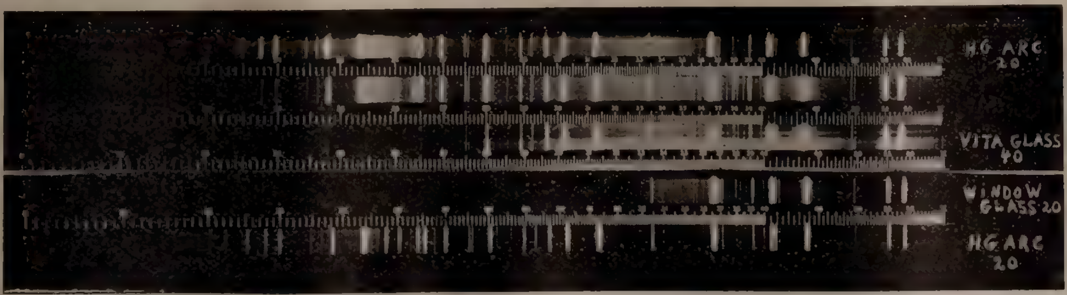

Fig. 12.—Qualitative limits of a number of ultraviolet filters compared to window glass.

A number of filters are available. The qualitative limits of a clear Corning glass are practically the equivalent of quartz. Other filters of ultraviolet in the vital zone are demonstrated by their qualitative spectrograms as compared to ordinary window glass and to quartz.

It is important to know that quality of transmission alone is not sufficient. The quantitative transmission in the vital zone must also be known. Ordinary window glass taken from my front door gave no radiation less than 3100 A.u. A sample of plain vitaglass, 2 mm. thick

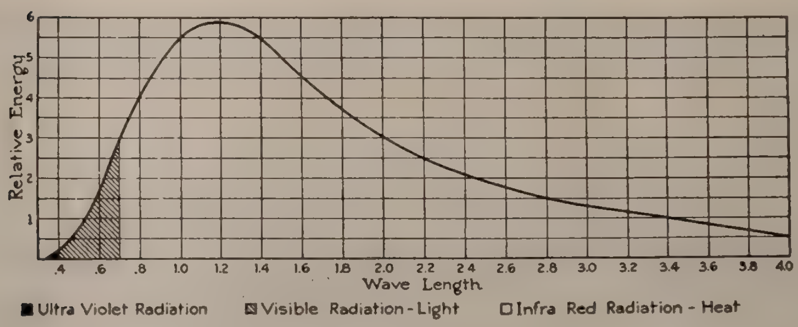

FIG. 13.—Proportional distribution of energy from a typical large size Mazda C lamp.

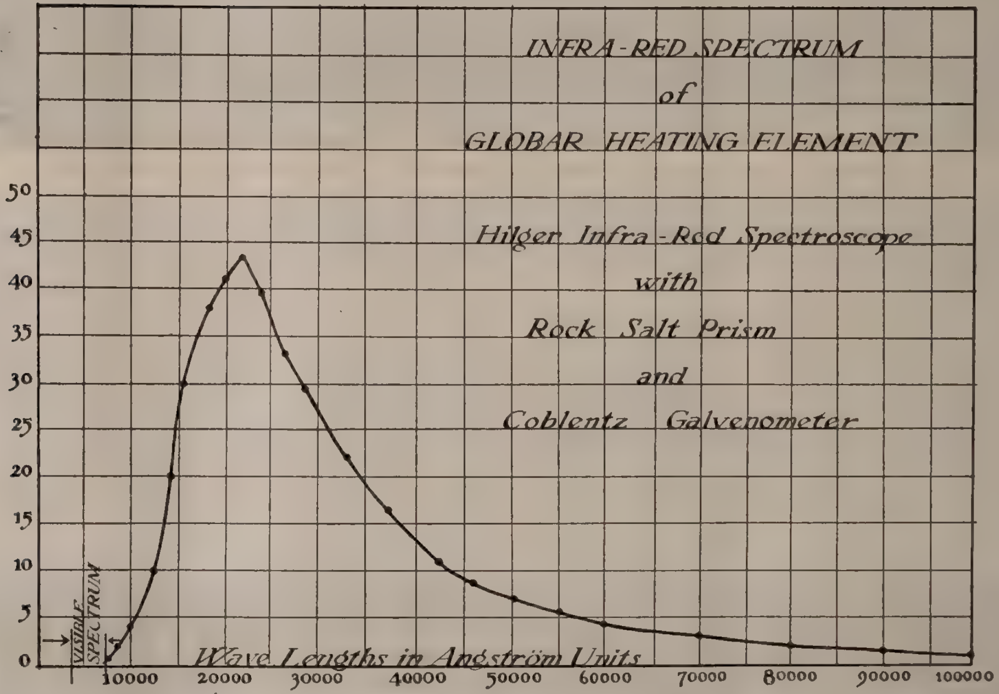

FIG. 14.

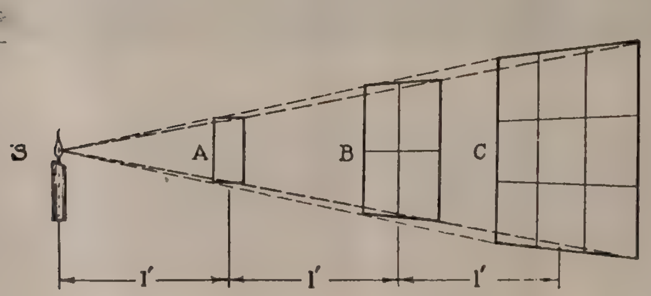

FIG. 15.—Law of inverse squares: illumination of a surface varies inversely as the square of the distance from the source to the surface.

gave 48.7 per cent transmission for the zone from 3100 to 2925 A.u. A piece of clear Corex, 4 m.m. thick, gave 69.6 per cent transmission in the same zone. In these tests the source of the effective vital ultraviolet was a direct current, 3.5 ampere scientific (upright) mercury vapor arc in quartz.

I pass rapidly in review the graphs for the emission of the incandescent bulb. It makes little difference if this be for a 1000 watt or 1500 watt bulb; whether a carbon or tungsten filament. The incandescent bulb gives about one to two per cent of the intravital ultraviolet (it all must pass through the glass enveloping bulb); four per cent of visible light; and 94 per cent of heat. Of this heat the bulb, if of clear glass, absorbs practically all of the radiation of wave lengths longer than 3000 millimicrons; and it completely absorbs all the radiation of wave lengths longer than 4,500 millimicrons. The low temperature radiation from the heated bulb (some 11 per cent of the total) cannot penetrate deeply into the skin. The spectral component radiation extending from 600 millimicrons in the red to 1400 millimicrons, amounting to about 30 per cent of the total, can (according to W. W. Coblentz) penetrate deeply into the skin.

CHART TWO

ERGS PER MILLIMETER SQUARE PER SECOND AT 40 INCHES

Source	*Amperes*	*Current*	*Volts*	*Arc length (mm.)*	4000 *to* 3200 *A.u.*	3200.*to* 2900 *A.u.*	*less than* 2900 *A.u.*
Mercury vapor arc in quartz	3.4	direct	75	55	10.981	8.585	4.034
less than 200 hours old	5.	alternating	150	120	9.380	11.313	6.286
White flame 10 mm.diam. Therapeutic 'A' carbon	17.	direct	35	15	7.803	1.120	.407
Blue flame 10 mm.diam. Therapeutic 'B' carbon	17.	direct	35	13	6.635	2.199	1.441
Gas filled tungsten filament glass bulb	4.	direct	115		estimated slight	known 0	known 0

The next illustration is that of the comparative emission of the Globar material used in the so-called infra red emanators.

The law of the inverse squares actually applies to a theoretical point source. The principle involved is that energy striking the part is inversely according to the square of the distance from the source. Doubling the distance from the source, reduces the unit of intensity per area of the energy to one quarter.

I come now to a contribution to the subject of phototherapy with ultraviolet. I owe this to the splendid cooperation of William T. Anderson, Jr., Ph.D., by which I have been enabled to study at first hand the quantitative emanation of the sources of such radiation used in my practice.

These sources of ultraviolet were measured by means of a series of quartz prisms and slits arranged to permit preselection of wave lengths. The energy of such wave lengths emitted by the source studied could then be actually measured by means of a thermopile and a galvanometer. The ergs of energy per square millimeter of area per second of time at 40 inches distance from the source were checked against a registered bulb of the United States Bureau of Standards.

We now have available for the first time data to compare with clinical findings. A gas filled tungsten filament bulb of glass, whether blue, clear, or frosted, whether 10 watt or 1500 watt does not give radiation protection against rickets, and does not sunburn or suntan, no matter how long the exposure may be. We now know how to compare the sources given with the clinical results obtained from their use. We now know how much radiation in the ultraviolet is effective radiation in the vital ultraviolet zone, and how much radiation in the ultraviolet has no effective reactions recognizable to us.

With further study of the common sources of radiation we will be prepared to give some quantitative estimation of dosage which to date has been purely empiric. We will seek also to compare ultraviolet dosage with erythema production.

My contention is that the dermatologist, and all physicians using ultraviolet must learn from the manufacturer of the apparatus utilized HOW MUCH of the radiation of ultraviolet emanators is VITAL ultraviolet. My contention is that we must not be misled by division into the coarse bands of infra red, visible, and ultraviolet; nor by further division into near, middle, and far ultraviolet. We must know more than that. We now have the opportunity of asking what share of the emission of the apparatus at operating conditions lies in the zone from 3100 to 2900 Angstrom units. We must then learn by experience the factors of time and distance. With these four factors, quality, quantity, time, and distance, we can reproduce effects and advance the field of phototherapy within the limits of the variant factor of the patient.

THE WORKMEN'S COMPENSATION LAW IN ITS RELATION TO THE PHYSICIAN*

By JAMES A. HAMILTON, Ph.D.,
The Industrial Commissioner, State of New York.

WHEN an employee covered by the Workmen's Compensation Law receives an injury "arising out of and in the course of employment" or develops "any such disease or infection as may naturally and unavoidably result therefrom," it is the duty of his employer under Section 13 of the Workmen's Compensation Law to promptly provide for him "such medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus for such period as the nature of the injury or the process of recovery may require."

It will be noted from the preceding quotation from the law that the duty of the employer to provide medical treatment for an injured employee is absolute, and that the length, kind and quality of such treatment is limited only by the requirement that medical service be rendered "for such period as the nature of the injury or the process of recovery may require."

Illustrative of the fact that no time limit is placed upon necessary medical services is a report of hearing in September in which claim was made for such service to one patient for a period of six years. Originally, the law restricted such treatment to 60 days but since 1922 there has been no limit save such "as the nature of the injury or the process of recovery may require." The newspaper report is as follows:

"Dr. Sengstacken presented a bill for caring for Joseph Miller, who died last February after having been bedridden for nearly six years. Miller was injured in August, 1921, while employed on the Gormley brick yard. He was working on a brick shed with one foot across a cross beam when he fell.

"According to Dr. Sengstacken, the man's right side was paralyzed, he suffered abrasions on the head and his right shoulder was hurt. Miller, he said, never regained the use of his right arm but a marked improvement developed as far as his legs were concerned.

"Dr. Sengstacken attended the man until the time of his death, which was caused chiefly by apoplexy, but contributory factors resulted from his accident, he said. The case was adjourned to New York City."

It is the duty of the employer to provide medical services at his own expense. He may insure payment of such expenses in his compensation policy, or he may assume the burden himself. But in either case, the law holds the employer responsible.

To physicians it is of importance to note this power of choice by the employer. It does not rest in the insurance carrier. When a physician has been selected by the employer and has begun treatment of a case, the insurance carrier has no right to take away, or "lift" such case and transfer it to another physician.

Furthermore, if the physician selected by the employer deems it advisable and necessary to call a consultant physician, or specialist on the case, he has power to authorize their services. Each such consultant, or specialist, so brought into the case must file the prescribed form C4 and show authorization for the services he has rendered.

Section 13 of the compensation law gives the injured employee himself the right to secure medical treatment at the expense of the employer "if the employer fails to provide the same, after request by the injured employee," or if the employer or his representative, having knowledge of the injury "shall have neglected to provide" medical service. In such cases either of two situations may arise. The employee may himself make payment to the physician. If so, the employee may then come before the Board and ask reimbursement in the form of an award against the employer for the amount of the bill. The Board, if it finds the bill reasonable, may make such award. If the employee does not pay the medical bill, the physician may appear before the Board, show that he rendered service at the request of the employee, and secure an award for the sum. In both of these situations, the Board, in determining the fees, is governed by Section 13 which requires that they "shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living."

At all times, the Board has had power to pass upon the adequacy of medical treatment. If the Board finds, for example, that an injury under treatment is not responding properly and that such delay in healing is due to improper treatment, another physician, or other form of treatment, may be suggested. Where the employer furnishes the medical service, there has usually existed a direct, contractual relation between the employer and the physician and the Board has not entered into the matter of fees. Since the enactment of Chapter 553, Laws of 1927, effective on July 1, the Board has been given power to regulate fees for medical treatment and services "whether furnished by the employer or otherwise."

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* Read before the First District Branch, Bronx, New York, October 20, 1927.

The enormous number of accidents, approximately 500,000 in number, reported annually to the Department of Labor, necessarily requires that an orderly method of procedure be adopted and strictly followed so that the cases may be disposed of as expeditiously as possible. Rules have been adopted, and forms have been prescribed, for this purpose. Such regulations are applicable to all parties having anything to do with the case, including employer, employee, insurance carrier, and by no means exempting physicians, hospitals and all other persons and organizations who are in any way related to the medical handling of the case.

The medical aspects of the Workmen's Compensation Law have from the enactment of the statute been the occasion of misunderstanding. Much of this has been due to a lack of understanding on the part of physicians, employers and insurance carriers as to their duties under the law. Time, and some amendments to the law, have brought about a large measure of correction and there exists today a much better understanding on the part of all concerned as to the medical aspects of the law. I trust that such growth of knowledge and of mutual understanding will continue until the last vestige of misunderstanding disappears.

Some of the duties of a physician who treats a compensation case may be here set down. Of prime importance is the necessity for filling out and forwarding to the Department of Labor what is known as Form C4. This is the report made by the physician as to first treatment rendered to the injured worker. Most of you are, perhaps, familiar with this form. Each item on it should be filled out as the information called for may be needed in later administration of the case by the Department of Labor.

From the standpoint of protecting the physician's compensation, this Form C4 must be filed within 20 days after the first treatment. This definite time limit, specified in Section 13 of the law, has been upheld by the courts and cited by them as the basis of refusing payment of medical bills. As an illustration of the effect of failure to file the C4 within 20 days, the following newspaper account of a compensation hearing, held in September of this year, may be given.

"In the cases of Dr. Kline and Dr. Leitner, the Utica Mutual Company refused to pay bills for their care of John DeGroat following a long period of illness as the result of an infection while employed at the shoe factory of Burger and David in Nyack.

"DeGroat first went to Dr. Kline for treatment in December, 1924, and was attended by the physician for several months. Dr. Kline's bill amounts to $284 and, while on a vacation, he turned his patient over to Dr. Leitner, who performed two operations. The latter's bill is $343.

"The bills of the two physicians have remained unpaid for fifteen months, and on the stand Dr. Leitner said to a representative of the carrier, 'I'll turn the money over to the hospital if you'll pay the bill.' The company opposed payment of the bills on technical grounds, contending that Dr. Kline had not presented a proper blank to his company and that it had been filed ten days later than is provided under the State Law."

The opposition to payment of these bills, it will be noticed, was based upon technical grounds of failure to file reports within the time limit set by law. Under the law, and court rulings, that is a valid defense against payment of the bills, whatever may be thought as to its propriety.

Another point to bear in mind in connection with Form C4 is that a copy must be furnished to the employer as well as to the Department of Labor. In the case just referred to, the carrier alleged that this form had not been furnished to their office.

In filling out the C4, the physician should likewise be careful to swear to the affidavit provided at the end. This renders the report prima facie evidence and often renders it unnecessary for the physician to attend the hearing as a witness. Trouble in making this affidavit may be avoided by having the office stenographer, or nurse, take out notary papers, or perhaps the wife of the physician. It is also advisable to keep an office record of the date on which the C4 is mailed to the Department and to the carrier. Mails do at times go astray, and a definite record that such form was actually mailed on a given date may be serviceable in establishing the fact that the report was mailed on time.

Some of you may wonder why so much stress is here placed upon the necessity of filing the C4 within 20 days in view of the fact that by Chapter 553, Laws of 1927, the Industrial Board was authorized to excuse the failure to give such notice within 20 days when found "to be in the interest of justice to do so." The reason is that the mandatory requirement of filing within 20 days still remains in the law, and that delay will be avoided by filing within that time limit.

One item in the C4 should be carefully observed. This question, number 9, reads as follows: "Who engaged your services?" A physician in order to receive payment for his services must secure proper authorization from the responsible party. No injured employee should be refused treatment, but it is incumbent upon the physician that he discover from the patient the name of his employer, and promptly notify the employer of such treatment and secure authorization for the medical service rendered. Without such authorization, the employer, or his insurance carrier, may refuse payment alleging this lack of proper authorization. Many such instances have actually occurred. It may occur that the employer has already offered the services of another physician. In such case, the employee will have no legal right to demand payment by employer of a different physician.

What is said of the C4 applies also to the Form C27 known as the "attending physician's supplemental report." While the 20-day time limit does not apply, it is necessary in order to protect the injured employee's rights that it be properly filled out and duly filed. Here again the affidavit at the end constitutes prima facie evidence and may save the physician a visit to the hearing as a witness.

Even in these days of ubiquitous typewriters, there is still some writing done by hand. The much smaller amount of such writing has, however, almost placed chirography among the lost arts of the ancients. While not especially singling out physicians as shining examples of poor handwriting, yet, judging from the reports which have come under my observation, I should say that some improvement is possible. Technical terms which roll trippingly from the tongue of the surgeon or practitioner, are puzzling even in clear print to the laymen who, for the most part, are engaged in administration of the Compensation Law. And when these terms are reduced to writing, there is even greater need of clearness if they are to be understood.

I should like to throw out a challenge to the medical profession with regard to the great field of industrial medicine and surgery. Broadly speaking, it may be said that the enactment of the Workmen's Compensation Laws, now almost universal in the United States, has opened up these new fields in medicine. This is especially true as to occupational diseases. Not that the field was wholly undeveloped hitherto, but compensation laws gave it such an impetus that medical colleges, hospitals, nurses, and the great army of practitioners and surgeons are in duty bound to give it new and especial attention. The compensation laws constitute one of the greatest practical steps ever undertaken in our society towards industrial justice for the rank and file of working people. It is not charity, but elemental justice to compensate industrial workers for accidental injuries received in the course of employment. To achieve this end, it is an obligation resting upon all concerned, physicians no less than others, to seek the clearest light available, and to see that the spirit and purpose of this beneficent statute are fulfilled.

May I close with reference to the ancient and noble oath of Hippocrates, which every one of you subscribe to at your entrance into the honorable profession of healing, and call upon you, not only to render your services in every case of need, but also to protect the injured employee in rights to which he is entitled by due observance of the procedure necessary to secure compensation for himself. By so doing, you protect not only him but yourself as well.

UNUSUAL CASE OF DIABETIC ACIDOSIS WITHOUT KETONURIA OR KETONEMIA

By ABRAHAM RUDY, M.D., NEW YORK, N. Y., and CHARLES M. LEVIN, M.D., RICHMOND HILL, L. I., N. Y.

WE are presenting this case because: 1. Diabetes may be discovered for the first time in old people and can be dangerous, contrary to common belief that the disease is mild in old age. 2. This is another case of diabetic acidosis without the presence of acetone bodies in the urine and blood.

The history briefly is as follows:

E. C., female, white, widow, English, 72 years of age. Family history is negative. No diabetes or kidney diseases. Previous history. Does not remember any childhood diseases. Bore 11 children, 6 now living, no miscarriages. Otherwise previous medical and surgical history is negative.

Present Illness.—On October 10, 1926, patient awoke with slight headache, a dull depressed feeling and without any desire for food. She took nothing but milk. She tried to get about but felt peculiarly weak and went to bed. She became progressively worse and although she was nauseated and retained nothing but milk which she continuously sipped, she sought medical advice in the evening of October 14th only because of great shortness of breath and "gas around the heart." When seen for the first time at her home that evening the physical examination revealed: a short very obese woman propped on pillows with very marked dyspnoea, appearing acutely ill, skin and mucous membranes pale and very dry. Temperature 96.4. Pulse thready and feeble. Mouth was dry and tongue heavily coated, few teeth in poor condition and breath distinctly sour. *Lungs:* A few fine moist rales were found at the bases of both lungs, otherwise clear. *Heart* was weak, sounds of poor quality, action very irregular, ranging from 150-170 and at times could not be counted. B. P. readings low and unsatisfactory. *Abdomen* quite distended, not tender. Visceral outlines could not be determined because of distention and obese character. *Extremities* cold and somewhat edematous at the ankles.

Urinalysis: Pale, clear, spec. gr. 1040, heavy albumen heavy sugar, no acetone or diacetic acid. Microscopically, some pus cells. no red cells or casts. *Blood chemistry:* Plasma sugar 750 mgms. per 100 c.c. (Benedict), urea, 76 mgms. per 100 c.c., no plasma acetone (Wishart-Rothera test); carbon dioxide combining power was 37.

In spite of the absence of acetone bodies in the urine and blood a diagnosis of impending coma was made. The administration of insulin and carbohydrates (in the form of orange juice) was started at once. A trained dietitian was immediately called on the case. The patient was put on stimulants. Fluids were forced hourly with three small doses of bicarbonate of soda and enemata given for bowel relief. The next morning the patient felt much easier and there was a marked improvement in her breathing. A blood sugar determination at 8 A. M. showed 500 mgms. per 100 c.c., the urea was 82 mgms. per 100 c.c., and there was no acetone in blood and urine. Insulin administration was guided by repeated urine tests. Only after a total of 210 units of insulin with 145 gms. of carbohydrates in 20 hours did the urine become sugar free. The patient was closely watched for hypoglycemia. At 9:30 P. M., October 15th, she began to show signs of a low blood sugar and a blood test done at this time showed 85 mgms. of sugar in 100 c.c. She received 10 gms. of CHO and no insulin was given that night. Urine tests were done every 2 hours. On October 16th her condition had improved remarkably. Respirations were 24. Temperature 96.8. Heart still irregular but of better quality, pulse 110, irregular and somewhat thready. Her urine was negative for sugar and acetone. She was placed on a program of protein 30 gms. (because of the high urea), carbohydrate 80 gms. and low fat with 60 units of insulin in divided doses of 20 units each t.i.d. She was kept sugar free for 10 days on this diet and we were able to reduce her insulin from 60 units daily to 30, guided all the time by slight hypoglycemic symptoms. A blood test done on October 28th before supper and insulin showed a plasma sugar of 200 mgms. per 100 c.c. and a blood urea of 32 mgms. per 100 c.c. A diet change only in the protein was made from 30 gms. to 60 gms. daily. Two days later she began to show again sugar in her urine. There was no apparent cause for this because of strict observation. Her insulin requirement gradually rose to 60 units daily and within 3 days an acute inflammation in the region of the right parotid gland developed. With hot fomentations, insulin and strict diet this condition subsided within a week without surgical interference. Following this her insulin dosage dropped back to 30 units daily. She was getting along nicely until December 16th when she started to feel sick again without any definite complaint. We were called on December 18th when she was seized with an attack very similar to the first but more acute in onset. There was a very marked dyspnoea of the Kussmaul type. She appeared terrified and begged not to let her die. Her face was very pale and haggard, with fine perspiration. Her heart action was irregular and rapid. In spite of the thought of a recurring acidosis (later she confessed that she broke her diet for a few days) a hypoglycemia was considered and therefore orange juice was administered and adrenalin hypodermically given right after a blood sample for a test was drawn. Further stimulants for the heart were ordered. The plasma sugar was 441 mgms. per 100 c.c. at 11 A. M. in spite of her usual morning insulin and a breakfast at 9 A. M. consisting only of orange juice (she omitted the rest of her breakfast because of nausea). The urine showed only a trace of sugar. There was no acetone bodies present in the urine and blood. She was given 30 units of insulin in addition to her regular dose. The next morning the blood sugar was 220 mgms. and the urea 64 mgms. per 100 c.c. The urine was sugar and acetone free. Within a few days she was regulated back on her old program. Since that time she is taking care of her daily duties on a diet 60 protein, 80 carbohydrates and 1000 calories and her insulin, when last seen in February, 1927, had dropped to 10 units.

Discussion.—This is a very instructive case of diabetic acidosis from which several important conclusions may be deducted. It proves the importance of a routine urinalysis on the acute case seen at home by the general practitioner as well as he does with his chronic cases. A positive sugar certainty does not prove that diabetes was the cause of this condition, at the same time the negative acetone did not exclude an acidosis in this case. We learn here that the combination of all the symptoms together with the laboratory findings gives the diagnosis. If not for the sugar findings and characteristic symptoms such as marked dyspnoea, polyuria, polydipsia and excessive dryness this case might be the picture of an acute myocardial insufficiency with auricular fibrillation or one of the so-called "acute indigestions." A blood chemistry is always of great importance in this type of case. The low CO_2 combining power despite negative acetone and the very high blood sugar means acidosis. Another proof is the marked improvement of the dyspnoea within 12 hours under insulin administration. There was not enough digitalis and caffein given to explain the quick effect. The insulin dosage of 210 units in 21 hours and the fact that she could not stand more than 30 units daily a few days later on a diet of protein 30 gms., carbohydrates 80 and calories 800 confirms the condition of acidosis. The frequent administration of CHO during the first 24 hours was done with the idea of burning up the acetone bodies or other acids present and preventing severe hypoglycemia which would have been dangerous in her case because of the poor condition of her heart. It is of interest to note that the glucose and insulin in these cases not only improve the acidosis but also act as a heart stimulant. The high urea which appeared in this case is quite common in diabetic acidosis.

Despite the general opinion that diabetes in elderly people is harmless there are exceptions, for it is readily seen that acidosis develops in an old person to whom diabetes was unknown. This case was treated at home under constant observation with a dietitian in attendance for a full week.

Diabetic acidosis without ketonuria already has been seen: in 1883 by E. Stadelman[1], in 1884 by von Frerichs[2] and later by Lepine[3], Revillet[4], McCaskey[5] and others. Rosenbloom[6] believes that his 3 fatal cases of diabetic acidosis without ketonuria belong to "a type not due to intoxication with acetone bodies and possibly due to intoxication with aminoacids, polypeptides or unknown substances found in the intermediary metabolism. On this basis he explains the inadequacy of the alkaline therapy. In their experimental studies of diabetic acidosis Allen and Wishart[7] came to the conclusion that the acetone bodies in the urine, blood and the plasma CO_2 content are not always parallel. Death may occur with a normal plasma CO_2 and high ketones or low CO_2 and low plasma acetone bodies. They are inclined to believe that a specific intoxication with acetone substances together with an element of true acidosis is the chief known cause of diabetic acidosis. Peters, Bulger and others [8] believe that diabetic coma may be caused in part by acids formed as a result of associated pathologic processes. Appel & Cooper[9] reported very recently 5 cases of clinical diabetic acidosis with a low plasma CO_2 but with a negative ferric chlorid reaction in the urine at some time in the course of the disease. There was, however, in these cases at times a high ketonemia. They give a complete review of the literature concerning this subject. Argy[10] and Feinblatt[11] each reported a case in which they found a large amount of acetone bodies in the spinal fluid without ketonuria and in one case without ketonemia. It would be of great interest to examine the spinal fluid of a large number of coma cases (at least fatal cases) for acetone bodies.

Starr and Fitz[12] studied the excretion of organic acids in the urine of a large number of diabetics. They divide the diabetic acidosis in 2 groups: In the first group the acetone bodies alone appear responsible for the acidosis. The lowered plasma carbonate content corresponds to the molecular concentration of the acetone bodies. These cases respond very well to insulin because of a better oxidation of the carbohydrates in the blood. In the second group they place those cases where other acids than the acetone bodies are the cause of acidosis. In this latter group a larger amount of unidentified organic acids is excreted through the urine. The low CO_2 combining power of the blood does not correspond to the molecular concentration of the acetone bodies in the blood. These cases, they claim, respond more to alkali therapy than to insulin. For this reason they believe that all diabetic acidosis should be treated with insulin and alkali combined. A. R. J. Dungan,[13] who continued the work of Allen and Wishart, in administration of acetone bodies in order to determine their relation to the symptoms of diabetic coma came to the following conclusion: "It is highly unlikely that either of these acids can *directly* cause the symptoms of at least the majority of cases of diabetic coma. The possibility merits serious consideration that an intoxication of the same nature as that obtained by the administration of aceto-acetic acid in dogs, produced by the overloading with material of the weakened mechanism for the oxidation of aceto-acetic and hydroxybutyric acids, plays an important or the predominant part in the production of diabetic coma." Our case, as well as all the other cases of diabetic acidosis without ketonuria or ketonemia and also the experimental work on the acetone bodies, point to the conclusion that the acetone bodies are not always the *direct* or the *only* cause of diabetic acidosis resp. coma. Thus the problem of diabetic acidosis must still be considered unsolved.

In contrast to this unusual case we feel justified in mentioning briefly a routine case of diabetic acidosis treated at the same time at home.

Mrs. A. F., 62, widow. *Previous History:* Negative up to five years ago when diabetes was discovered. Diet and treatment instituted but patient disregarded all instructions and refused to diet. *Present History:* Patient complained of ill feeling on evening of January 30, 1927, and went to bed. She became depressed and nauseated, began to vomit, and was unable to retain anything. Patient summoned a physician who treated her for three days and then recommended removal to hospital for operation for cholelithiasis. When seen for first time, evening of February 2, patient appeared very ill, dry, markedly dyspnoic and vomiting. Heart sounds were good, rate was 130. Lungs negative.

Urine showed heavy sugar and heavy acetone. Glucose was administered intravenously after a blood sample was taken. Insulin subcutaneously followed the glucose. The blood sugar was 536 mgms. per 100 c.c., plasma CO_2 combining power was 24; and heavy acetone bodies in the blood were present. A dietitian was put on the case and the usual treatment with CHO and insulin followed.

Cases of this sort should be sent to the proper institutions unless a diabetic consultant is available and a dietitian or a nurse trained in diabetic work can be put on the case for a time. After the acute period is over and proper instructions to members of the family are given as to diet and insulin the subsequent treatment and care may go on uneventfully. We have observed that the ordinary person after the proper instruction and explanation as to the condition and the importance of the dietetic care of the patient can accomplish much more than has ever been supposed.

Summary.—A case of diabetes mellitus and acidosis discovered for the first time in a woman 72 years of age is presented. The problem of a diabetic acidosis without acetone bodies in the urine and blood is discussed and literature reviewed. A typical diabetic acidosis and its treatment at home are described.

Methods Used in Making Determinations.—The chemical methods used were the following: For

1. Sugar in the urine, the qualitative Benedict test.
2. Acetone and aceto-acetic acid in the urine, the qualitative Rothera test (a nitroprusside test).
3. Plasma sugar, the Benedict method.
4. Aceto-acetic acid and acetone in the plasma, the Wishart application of the Rothera test to the plasma.
5. CO_2 combining power of the plasma the Van Slyke method.
6. Quantitative blood urea the Van Slyke and Cullen's modifications of Marshall's Method.

The results of the qualitative tests for sugar and acetone are reported on an arbitrary scale, as follows: Negative (O), Trace (T), Very Faint (V. F.), Faint (F), Moderate (M), Heavy (H).

The Rothera test is the most delicate test for diacetic acid and acetone. It is sensitive to one part of aceto-acetic acid in 20.000, while ferric chlorid reacts only to about one part in 8.000.

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STANDARDIZED TREATMENT IN EARLY SYPHILIS AS A MEANS OF ELIMINATING NEUROSYPHILIS*

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THE most discouraging problem that confronts the syphilologist of today, despite modern improved therapy, is the treatment of late neurosyphilis. To deal with the condition adequately, treatment should be started before, or at least during the period when the nervous system becomes involved, which is now generally conceded to be the early secondary stage of the disease. Some observers even believe that there is a rash of all the viscera, and probably of the meninges, accompanying the cutaneous rash. In support of this belief there has occasionally been found an eruption on the bladder walls during secondary syphilis. "Syphilis of Bladder," by E. F. Chocholka, Zeitschrift f. Urol. Chir. 1926 vol. 21, Part 3 and 4, page 134. Kyrle of Vienna stated that 80 per cent of untreated syphilitics showed some pathology of the spinal fluid between the sixth and ninth month of the infection. Udo J. Wile and John Hinchman Stokes, "Further Studies on the Spinal Fluid with Reference to the Involvement of the Nervous System in Early Syphilis," J.A.M.A., vol. 64, page 1465-1470, May 1, 1915, find that 73 per cent of early syphilitics showed abnormality of the central nervous system. That this percentage does not hold true throughout the course of the disease is established by the work of J. A. Fordyce who found an average of 25 per cent of all syphilitics suffering from neurosyphilis, Moore and Kemp, 26.4 per cent and other observers from 30 per cent to 33 per cent. Of our own 208 cases punctured within the first year of the infection, 26 per cent showed positive spinal fluid Wassermanns.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, May 11, 1927.

Meninges probably primarily involved in neurosyphilis.—Kyrle believed that all forms of neurosyphilis, including tabes and paresis, were secondary to a meningitis. On the other hand, Pieters of Hamburg, working with Nonne, showed me the results of an experiment which pointed to the opposite conclusion. He had injected tissue taken from a lesion in the brain of a paretic into the testicles of a rabbit; when the animal was killed six weeks later he found in its brain an infiltration, resembling both macroscopically and microscopically the lesions in the human brain, but without demonstrable spirochetes which had been present so abundantly in the latter. The observation made him believe that some agent in addition to the spirochete was necessary to the production of paresis. He noted further that there was no involvement of the meninges, a process which he believed was secondary to the deeper infection. The experiment would seem to denote that an early syphilitic with parenchymatous involvement was predestined to become a paretic regardless of the treatment he received. However, the serological and clinical evidence of nervous system involvement in early syphilis, and the fact that often many years elapse between the discovery of positive findings and the development of symptoms of paresis or tabes, would indicate that the meningeal infection was primary. It is variously estimated that the incubation period in tabes and paresis is 8 to 15 years or longer, exceptionally, as short as 6 to 8 years.

Effects of early treatment in neurosyphilis.—It has been my observation during a number of years experience in the study of syphilis that when a patient began a prescribed course of treatment on discovering the initial lesion or the initial lesion with secondaries, and continued this treatment without interruption until 30 arsphenamine and 45 mercury salicylate injections had been given, both his blood and spinal fluid Wassermann were negative at the end of the treatment and remained so. Kyrle made the statement that of the patients who had begun treatment three to nine weeks after the appearance of the initial lesion 100 per cent could be cured by arsphenamine alone. I have frequently examined patients who in the early stages of the infection presented slight clinical evidence of neurosyphilis, such as irregular, unequal and sluggish pupils, hyperactive deep reflexes and a slightly positive spinal fluid Wasserman, or an increase in cells and globulin, yet at the end of the prescribed treatment showed a spinal fluid entirely negative in all phases. I have done a lumbar puncture on a number of these patients 8 to 10 years later and have found without exception that although there has been no change in the pupillary and deep reflexes, the blood and spinal fluid Wassermanns were negative. I have observed also that patients who show a strongly positive spinal fluid during the secondary stage of the disease are those who have interrupted their treatment, or else are those who have not started antisyphilitic treatment until several months after the primary lesion. Of the 208 cases punctured at the Vanderbilt clinic on an average of 4½ months after infection, these having had either no treatment at all or else inadequate treatment, 50 cases showed a definitely positive spinal fluid Wasserman and other abnormal serological findings. It has been difficult and usually impossible to obtain a negative spinal fluid in these cases even after prolonged and continuous treatment with salvarsan and mercury, only 6 of our cases having been cured by this method. In the others, it was necessary to resort to intraspinous therapy to obtain a negative serology.

Citation of case.—A typical case was that of a woman aged 35 who was first seen on August 1, 1925, with a history of initial lesion 5 months previous, followed 3 weeks later by marked secondary eruption. She had been given 10 intramuscular injections of sulphar arsphenamine; several weeks after the termination of this treatment she developed intense generalized headaches, marked weakness, followed by an acute mania, necessitating a constant attendant. Examination showed unequal, irregular pupils, reacting sluggishly to light, hyperactive deep reflexes with the right knee and ankle jerk slightly more active than the left. The blood serum was 4 plus, the spinal fluid 4 plus to 0.1 cc, 816 cells and a 4 plus globulin. She was treated for 4½ months during which time she received 26 injections of neo-arsphenamine, 28 of mercury salycilate, 10 intraspinous injections of Swift-Ellis serum and potassium iodid by mouth, with a resulting negative blood and spinal fluid findings. The accompanying chart shows the progress of the treatment.

Treatment employed.—We began in 1916 to give continuous anti-syphilitic treatments with arsphenamine or neo-arsphenamine in combination with mercury salycilate injections. Our routine is as follows: the first six injections of arsphenamine are given every other day; the seventh 3 days later; the eighth 4 days, the ninth 5 days, the tenth 6 days later. The initial dose is 0.3 gm. of arsphenamine or 0.45 gms. of neo-ars-

W. B.

Date	Cells	Glob.	Spinal Fuid Wass.	Gold Sol.	Blood Serum Wass.
8/20/25	816	4+	4+ 0.1 cc.	5555431100	4/16/25 4+
9/1/25	215	4+	4+ 0.2 cc.	5554331000	8/20/25 4+
9/11/25	80	3+	4+ 0.4 cc.	5444322100	9/30/25 2+
9/25/25	24	2+	4+ 0.8 cc.	4443321000	10/25/25 —
10/11/25	8	2+	4+ 0.1 cc.	4322110000	3/14/26 —
10/30/25	11	1+	4+ 0.15 cc.	2211100000	
11/14/25	6	±	4+ 0.2 cc.	1111000000	
11/28/25	4	±	3+ 0.2 cc.	1233210000	
12/12/25	6	±	2+ 0.2 cc.	1111000000	
12/28/25	2	V. F. T.	0 0.2 cc.	0000000000	
1/18/26	4	V. F. T.	0 0.2 cc.	0000000000	
3/14/26	3	V. F. T.	0 0.2 cc.	0000000000	

Total treatment for 4½ months' period: 26 Neo-Arsphenamine, 28 Mercury Salicylate, 10 intraspinous injections of Swift-Ellis serum and Potassium Iodid, by mouth for 6 weeks.

phenamine, the amount being gradually increased so that the last 4 injections represent the maximum dose of 0.6 gm. of arsphenamine or 0.9 gm. of neo-arsphenamine or approximately 0.1 gm. of arsphenamine to each 25 pounds of body weight where practicable. The first course of arsphenamine and the first course of mercury salycilate are given simultaneously, the mercury being administered every 5 to 7 days, and in the interval between the completion of arsphenamine and the completion of the mercury we prescribe fifteen to thirty drops (varying with the patient's tolerance) of a saturated solution of potassium iodid by mouth. The second course of 10 injections of arsphenamine or neo-arsphenamine is begun after six weeks, and this time given at weekly intervals. The mercury salicylate is discontinued after the fifteen injections have been given and is not resumed until the completion of the arsphenamine. The third courses of arsphenamine and mercury salicylate are a repetition of the second course. We advise a Wassermann test before and after each course of treatment. If the spinal fluid is positive we repeat the test at six weeks intervals thereafter, the results to be used as a guide in treatment.

Results in treatment of 150 cases.—While experience has taught us that some cases are undoubtedly cured after one course of treatment as evidenced by repeatedly negative Wassermanns and occasionally by a reinfection, we feel that the majority of patients require much longer treatment. We make it a rule to continue at least ten injections of salvarsan and 16 injections of mercury after the Wassermann has become entirely negative. Of 150 cases of primary and early secondary syphilis with a positive blood Wassermann, where treatment was begun within 3 months of the infection and adhered to as prescribed above, the blood Wassermann and spinal fluid findings have been negative at the termination of the treatment, and in all instances so far as we have been able to observe, has remained so, in some cases up to nine years. We have no record of a case of tertiary syphilis with absence of neurological symptoms and a negative spinal fluid having become positive. Kyrle considered that if the spinal fluid of a syphilitic was negative after he had had the disease three years that it remained so, and usually the disease became fixed after the 4th to the 6th month of infection.

Conclusions.—We believe that the prevention of neurosyphilis in the primary stage and cure of early neurosyphilis depend on prompt diagnosis by darkfield demonstration of spirochete from the initial lesion, the recognition of clinical symptoms in secondary syphilis and the interpretation of the Wassermann reaction; the established diagnosis to be followed by definite and uninterrupted courses of anti-syphilitic treatment. Once the spinal fluid findings become fixed, as manifested by a moderately to strongly positive Wassermann reaction, increased cell count and a positive globulin test and gold reaction, they usually become negative only following intraspinal treatment. In some cases 3 or 4 intraspinous injections are sufficient to obtain a negative spinal fluid.

Although all cases have to be considered as separate problems, some patients requiring more medication than others, it is far better to overtreat a few than to run the risk of inadequately treating others. Therefore, as a minimum standard treatment, we urge at least 30 injections of arsphenamine, or its equivalent in neo-arsphenamine, and 45 injections of mercury salycilate given as described over a period of nine or ten months, to safeguard every early syphilitic against the dread results of nervous system infection.

SOME RELATIONS OF MEDICINE TO INDUSTRY*

By C.-E. A. WINSLOW, Ph.D., NEW HAVEN, CONN.

IT was about a hundred years ago (in 1822) that Professor C. Turner Thackrah published his little book on "the Effects of the Principal Arts, Trades and Professions and of Civic States and Habits of Living on Health and Longevity"—the first exhaustive treatise on this subject in the English language. In the first flush of the great industrial revolution he outlined his problem in the following sentences which may well serve as our text this morning.

"If we look immediately at home, we observe the wonders which science and art have affected. We see large buildings, manufactures of almost every kind, and substances so changed, reformed, and combined, that nature could scarcely know her own productions. We admire the inventions of science, alike in their minuteness and their size, their accuracy, and their extent of operation. We see wool converted into cloth, in establishments so numerous and extensive as almost to supply the civilized world; we see the slight blue-flowered product of the field, formed, in the same mill, into the thread which passes through the eye of the needle, and into the canvass which bears our ships to every region of the globe; we see rough and massive minerals drawn from the bowels of the earth, converted on the one hand, into instruments which surpass in power the united strength of the largest animals, and on the other, formed into the finest and most delicate pieces of mechanism.

"These, and works like these, are assuredly wonderful. But while we admire, let us examine. What are the effects of these surprising works—effects, I mean physical and moral? I say nothing of the wealth they produce or have produced, for wealth is good or evil according to its application: I refer to the health of fifty thousand persons, who spend their lives in the manufactories of Leeds and its neighborhood, or in allied and dependent occupations. I ask, if these fifty thousand persons enjoy that vigor of body which is ever a direct good, and without which all other advantages are comparatively worthless? I ask, if the duration of life is as great here as in the agricultural districts?"

It is truly extraordinary to see how fully Professor Thackrah outlined the problems of industrial hygiene as we know them at the present day. Among the industrial poisons he describes lead palsy among printers, the hatters' shakes due to mercury, the diseases of painters, lead colic in the pottery trade (in connection with which he advocates the employment of leadless glazes), brass founders' ague and the like. He discusses silicosis in a classical passage to which I shall return in a later paragraph. He alludes to industrial dermatoses, to the bakers' itch and to cancer among chimneysweeps. He was perhaps the first observer systematically to apply physiological tests as a routine procedure in industrial hygiene, giving reports of the capacity of the lungs as determined by forced expiration into an inverted graduated glass jar. He knew, not only what was dangerous but what was not, for he shows that the odors of decomposing organic matter among tanners and slaughterhouse workers exerted no prejudicial effect. He recognized the supreme importance of alcoholism as a health hazard and he gave the soundest advice in regard to many problems of personal hygiene.

During the century which has passed since the appearance of this little book the progress which has been made is remarkable and significant. We can report with pride and satisfaction that the dangers incident to industrialization have been in large measure overcome and that the average duration of life in many factory communities is today even greater than it is in agricultural districts. In the field of industrial accident prevention in particular the accomplishments of the past two decades have been truly remarkable. The passage of the workmen's compensation acts, which spread so rapidly from state to state between 1909 and 1913, when 23 different states enacted laws of this type, has perhaps been the major factor in such progress. These acts not only placed the burden of non-preventable industrial injury where it belongs, upon the industry itself, but proved the most powerful stimulus to the prevention of those accidents which are preventable by bringing out clearly the cost to the industry of a neglect of due precautions. In 1911 the National Safety Council was organized and has served in increasing degree as a center for the coordination of effort toward this important end. As a result there are numerous industries in which we find that the number of days of absence due to industrial accidents has been reduced to a half or a third of what it was ten years ago. These achievements are now clearly reflected even in the gross death rates of the Federal census. The death rate for all accidental causes was 84 per 100,000 in 1910, and but 79 in 1920, in spite of the fact that automobile accident rates were included in the group and had increased by about eight points during that period. The net difference in the accidental death rate between 1910 and 1920 amounts to a saving of 15,000 lives per year and that figure has been added to year by year with the advance of this movement. In the field of industrial poisoning we are again making substantial progress, although the advance is probably not so great as in connection with the simpler and more obvious accident hazard, and is much harder to measure in definite statistical terms. The subtle effects of lead poisoning are still manifest among smelters of lead ores, in the manufacture and handling of white lead and red lead, in the manufacture of storage batteries and in the production of china and earthenware and in a great variety of other industries, above all among painters. Studies made in the United States show that in certain branches of these industries, one out of ten or one out of five of the workers employed may be found on careful examination to show evidence of incipient lead poisoning and these rates are still far in excess of those which obtain in countries like England where the processes have for a long time been carefully supervised and controlled. In English potteries for example only about 1 per cent of the employees suffer from lead poisoning as against 10 per cent shown by the findings of Dr. Alice Hamilton in 1911. The remarkable studies carried on by the Harvard School of Industrial Hygiene and published last year by Dr. J. C. Aub and his colleagues under the title "Lead Poisoning" (Medicine Monographs, vol. vii) is a contribution of the first importance to the pathology of this disease and opens the way to a rational and satisfactory treatment on the basis of the liberation of stored lead through the control of the acidity of the blood. In the field of prevention, however, there remains much to be accomplished.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

The problem of benzol poisoning has received increased attention and was last year made the subject of an exhaustive report by a special committee of the National Safety Council which brought out the fact that more than one-fourth of a group of workers exposed to the fumes of this substance showed clear evidence of early benzol poisoning. The rapidly developing process of spray coating is now being studied by a similar committee of the Council, and while the results of that study are still under consideration and can not be made public for the next two or three months it is permissible to point out that the earlier investigation made by the Pennsylvania State Department of Labor and Industry has made it clear that the use of the spray gun may involve the gravest hazards, not only of lead poisoning and benzol poisoning but of silicosis as well.

The control of industrial poison hazards may be accomplished along three general lines. In the first place, where the chief danger lies as is generally the case in the inhalation of toxic dusts and fumes, the hazard may be minimized by various mechanical devices such as the use of wet instead of dry procedures, the carrying out of dust or fume-producing processes in enclosed chambers, the provision of local exhaust ventilation and the use of masks and respirators. Where reliance is placed upon exhaust ventilation it must be noted that the ventilation provided must be very much greater than is commonly allowed. For example, the Pennsylvania studies in connection with benzol made it clear that an exhaust of approximately 200 linear feet per minute is essential for an adequate protection. In the use of masks and respirators a clear distinction should be drawn between those devices which rely on the filtration principle where the worker must draw in his air supply through layers of cotton or sponge or other filtering material and the type of device which includes a mask or helmet provided with a positive pressure interior air supply. I am personally convinced from my own experience that masks and respirators of the former type are practically valueless for continuous use. If the filtering layer be made of sufficient thickness to prove really effective the device will be so uncomfortable that in practice it will not be worn. If it is sufficiently comfortable to be worn it will invariably be found to be ineffective. These filter masks may be used in emergencies as they were used in the trenches for protection against war gases, but we are living in a fool's paradise if we expect a worker to protect himself by such an apparatus during a continuous period of hours. The second type of mask or respirator with a positive air supply is both effective and practical if properly designed and it is on this type of device alone that we should rely in seeking a mechanical protection against dusts and fumes.

Our second line of defense against the industrial poisons must be sought through a systematic and regular medical examination, aided by the use of the most refined laboratory tests. In the case of two of our major problems, lead poisoning and benzol poisoning, we are fortunate in possessing laboratory criteria in the form of blood tests admirably qualified to reveal the existence of incipient poisoning before its serious results are manifest. I can well remember in this very city during the war visiting a certain plant in company with Dr. David Edsall and Dr. Gilman Thompson and being told by the plant physician that they very rarely had any cases of lead poisoning. As this seemed surprising, in view of the unsanitary conditions which obtained, we questioned him about the tests which were used and he explained that "The foremen were told to send any men who had lead colic to the office." I have often wondered since whether this physician did not know that there were any other tests for lead poisoning than that which a foreman could apply or whether he thought that it was his visitors who were unaware of more refined methods of procedure. Today we all recognize I think that no worker should be employed in a trade involving the lead hazard without blood examinations made every three months for the determination of the presence of stippled cells or anemia; while in the case of benzol, the changes in the white cell count will give us tests which should have similar application.

The only complete solution of the industrial hazard problem is of course the elimination of the toxic substance and in many instances intensive study would reveal the possibility of finding some harmless substitute which could well be employed. The Committee on Benzol of the National Safety Council closed its report with a demonstration of the fact that toluol and xylol are far less dangerous than benzol under the conditions of industrial use, and concluded:

"We would therefore urge that the serious attention of manufacturers now using benzol should be given to the possibility of substituting one of these, or other relatively harmless substances wherever the conditions of a given manufacturing process make it possible to do so." In the case of the protection of the painter against lead poisoning the same line of approach seems to offer the only real hope of ultimate success. For outside painting there seem to be serious difficulties in the way of the elimination of lead sulphate but for booth spraying or interior surface painting (except possibly in the case of ship painting) the use of lead paints or of zinc oxide paints containing any major proportion of lead seems wholly unnecessary. The British departmental committee which studied this question and reported last year came out squarely for the important principles that all paints containing lead should be clearly marked as such and that lead paints should not be applied in the form of spray in the interior painting of buildings.

In addition to industrial accidents and industrial poisoning there is a third major problem affecting the health of the worker—the problem of silicosis. This danger I believe is on the whole perhaps the most significant and far-reaching of the three, and it is today certainly the one which is most generally neglected. Thackrah one hundred years ago said "The affections of the lung and air tube induced by industry are the most urgent of the maladies which result from our employments," and this is true today. He pointed out that the fork-grinders of Sheffield who used a dry grindstone died at the ages of 28 to 32 while the table knife grinders who worked on wet stones survived until between 40 and 50. That the process of wet grinding is by no means necessarily an efficient protection is clearly indicated however by studies which we have made at an axe factory in Connecticut where the death rate from tuberculosis for a period of twenty years was 1900 per 100,000 among the grinders and polishers (for the most part doing wet grinding on natural sandstone wheels) while it was 160 for the rest of the employees of the same factory. The inhalation of almost any type of dust in large quantities has a profound effect in increasing susceptibility to acute respiratory infections such as bronchitis and pneumonia but when the inhaled dust contains free silica there is in addition a specific and definite increase in the incidence of tuberculosis which is one of the most striking and remarkable factors in the etiology of this disease. The table below presents comparable mortality figures for England and Wales for the ten occupations which in 1910-1912 showed the highest rates. These figures are not in terms of deaths per 100,000 but in the form of arbitrary comparative mortality figures. I have therefore included the comparable figure for all occupied males and the lowest figure for any occupation, that for clergymen; and also the figure for coal miners to compare with that for tin miners below. It will be noted that the tin miners exposed to silica dust show a comparative mortality nearly ten times that for coal miners, exposed to a dust which does not contain silica. It will be noted that of ten occupations, the only ones showing mortality rates over 250, six are occupations exposed to silica dust including all the three in excess of 420. In the other four cases the high death rates are presumably due either to alcoholism or to a process of selection which draws those who are already suffering from tuberculosis into such industries as messenger service and the street trades.

COMPARATIVE MORTALITY FROM PULMONARY TUBERCULOSIS IN CERTAIN OCCUPATIONS

	England and Wales, 1910-1912
All occupied males	141
Clergymen	45
Coal miners	75
Messengers, porters, watchmen	252
Seamen, etc., merchant service	257
Potters, earthenware manufacturers*	282
Tool, scissors, file, saw, needle makers*	306
Inn, hotel servants	309
Lead miners*	335
Costermongers, hawkers	419
File makers*	434
Cutlers, scissors makers*	466
Tin miners*	678

In connection with the problem of respiratory disease I can not refrain from alluding to what is probably the greatest single cause of absenteeism, the common cold. From the standpoint of production there is probably no single disease which places so heavy a burden upon industry and in the recent investigations which have been made by the New York State Commission on Ventilation and other students of this subject we have at last one practical method of attacking this important problem. We may conclude from these studies that the overheated living room or schoolroom or workroom has a profound and unsuspected affect in increasing the prevalence of these minor respiratory diseases. In the New York studies, carried on with the greatest care during two successive winters on thousands of school children, it appeared that in rooms with an average temperature of 68.5 degrees the amount of absence due to respiratory diseases was increased 18 per cent and the amount of respiratory sickness among pupils in attendance was increased 70 per cent as compared with a group of rooms averaging 66.5 degrees. There is probably no single thing which would have greater effect in the prevention of preventable industrial disease than the control of overheating in the factory.

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*Exposed to silica dust.

On the continent of Europe the problems of industrial hygiene have been dealt with for the most part through the method of official governmental action but in this country the major part of what has been accomplished has been brought about through the initiative of far-sighted employers of labor—stimulated it is true in great measure by the indirect influence of the Workmen's Compensation Act. So soon as the financial burden of industrial accidents was brought clearly to the attention of the industrialist there was initiated a two-fold movement, for the employment of safety engineers on the one hand and of industrial physicians on the other. In most instances the physician was first employed primarily for the purpose of providing first aid for compensable accidents, a measure so obvious that it could not escape the attention of the intelligent factory manager. When a medical department was once organized, however, its field of usefulness quickly enlarged and it became evident that it might often be of advantage for the plant physician to render first aid in minor industrial illnesses of a non-compensable character in order to avoid unnecessary lost time and to promote efficiency in production; and a third possibility was opened up when the employer began to realize that the medical examination of applicants for employment might prove of the highest value in facilitating the proper adaptation of the individual to his job. Dr. H. E. Mock in his admirable textbook on "industrial Medicine and Surgery" has estimated the profits involved in this aspect of industrial medicine alone as follows: In ten major industries with a medical service estimated to cost in the neighborhood of $250,000, over 11,000 applicants were rejected on the basis of the examination, which, on the assumption that these men if employed would soon have been forced to drop out and on the conservative estimate of $35 as representing the cost of hiring and training a new worker, would involve a saving of $400,000.

At the shoe factory of the Endicott-Johnson Company near Binghamton the concept of industrial medical service has been developed to a degree which is almost staggering in its possibilities. As described in the Journal of Industrial Hygiene for 1924, this plant employed 16,000 workers and the firm provided, not only for these workers but for all the members of their families as well, complete medical care for illnesses of every sort and kind. Three medical centers, each including a maternity hospital, were in operation and the staff included twenty-seven full-time physicians, 51 full-time nurses, 3 dentists, 2 pharmacists, with various clerks and assistants. In addition, hospital care and service of specialists was provided by contract with outside institutions and specialists. The total cost of service amounted to $400,000, $25 per employee or perhaps $5 per individual covered. The service was not organized as a philanthropy but because of the conviction of the head of the firm that it pays ample dividends in promoting the efficiency and contentment of the working force. If this view be correct the addition to the annual wage of each worker of the sum of $25 may certainly prove a sound investment.

We may not be prepared to argue for the general extension of industrial medical service on any such far-reaching lines as these. I do believe, however, that a reasonably adequate system of health supervision for the employees themselves should be an essential part of the organization of every modern industry. No factory owner would dream of operating machine tools or power looms without competent experts in his employ to keep them in working order; and the supervision of the living machines in any factory is even more essential for maximum productivity. I look forward in the future (when the present period of post-war slackness and self-satisfaction has passed) to an extensive development of the work of the industrial physician. I believe, too, that the industrial physician will more and more come to be recognized as something more than a doctor who practices his profession for one or more hours of the day within the walls of a factory. The true industrial physician should not only practice minor surgery and render first aid in factory illness and make physical examinations of prospective employees. He should also be familiar with the industry itself, should take an active part in the control of its poisons and dusts and other hazards and should be a specialist in the complex problem of adapting the individual worker from a physiological and a psychological standpoint to the particular task which he is to perform.

In closing let me point out that the control of industrial disease depends, not alone upon the factory physician however competent, but involves the intelligent cooperation of the medical profession as a whole. Until industrial medicine is far more completely organized than is likely for the present to be the case it will often happen that the early symptoms of industrial poisoning or industrial silicosis will come to the attention of the private practitioner with no first hand knowledge of the hazards which are involved. Only in so far as the private physician becomes familiar with the commoner symptoms of industrial disease, and by careful questioning traces them back to their source and correlates them with the occupation of the patient, will progress be insured. The effect of industrial poisons may be manifest in the widest variety of forms, in nausea or vomiting or colic or constipation, or more obscure disorders of the digestive system, in headache or dizziness or vertigo, muscular incoordination or neurotic symptoms of a complex and puzzling nature; while the affections of the skin due to various poisons or irritant dusts are almost legion. The Medical Society of New York can perform no more useful function than in calling to the attention of its members the significance of symptoms of this kind and in impressing upon them the importance of the most careful inquiry into occupational history in forming a diagnosis and providing for a scheme of treatment.

There is a famous Chinese proverb in the Thousand Gold Remedies that reads as follows: "The high grade doctor serves the nation; the middle grade doctor the individual, and the low grade doctor treats physical ailments." The physician who not only considers his patient as a whole individual rather than a mass of symptoms, but also considers the entire life of the individual in relation to his occupation and his home and the society in which he lives, is indeed the one who serves his nation and who serves mankind.

DISCUSSION OF DR. WINSLOW'S PAPER

By **LOUIS I. HARRIS, M.D.**

Commissioner of Health, New York City.

PROFESSOR WINSLOW has played a leading rôle in directing attention during more than a decade to the conditions in industry that have had a bearing on the health and the lives of workers. I do not wish to enlarge upon the themes that he has discussed in his eloquent, scholarly and comprehensive survey of the subject. I cannot forego the opportunity of venturing to express, on behalf of the medical profession of this State and of those interested in preventive medicine, a sense of our indebtedness to him for challenging the medical profession to give more than passing notice to the importance of rendering more service in research and in preventive practice to eliminate or ameliorate those industrial factors that threaten the workers—the 44,000,000 children, women and men who are employed in industry.

Year by year the number of the physicians who are drawn into industry is growing. It devolves upon them to apply the lessons which research of the type carried on by Professor Winslow and others has shown to have a lifesaving value of great importance. It is not enough that doctors should serve to bind up wounds and apply their curative art to the casualties resulting from the character of the industrial environment or the specific hazards attendant upon certain industries.

Physicians in industry must apply themselves to the prevention of the enormous number of such casualties. These physicians, as well as clinicians, surgeons and laboratory workers in general must contribute more richly to that type of study and research which will develop more potent weapons for the prevention of industrial diseases.

While social medicine is often spoken of as if it were synonymous with the socialization of medicine, I would like to point out that one of the implications of Professor Winslow's paper is, that effective work of the medical profession in the realm of industrial medicine implies a social service of vast proportions not only to the workers, who are spared from sickness, injury or death, but an equally valuable service to those dependent on wage-earners. Such service prevents dependency due to disability or death of the wage-earner and is therefore a service to the community as well.

RADIUM THERAPY IN CERTAIN SKIN LESIONS*

By EARL L. EATON, M.D., BUFFALO, N. Y.

THERE is no longer any question of the usefulness of radium as a therapeutic agent. The only points left open for discussion are the proper selection of cases to be treated, and the best methods of application under given conditions. Radium has become as well established in the physician's armamentarium as the obstetric forceps, but like this highly useful implement, it must be applied with intelligence and discretion, for in the hands of the novice or of the overzealous enthusiast, it is capable of doing infinite harm.

My experience with radium has been confined to its use in dermatological work, and that again, has been in large measure, restricted to private practice. Therefore, my material, viewed by the standards of large city clinics, may seem meagre, yet I am so impressed by the value of radium in this field, and the need of greater knowledge both of its applications and limitations, that I am led to hope that a brief account of my experience will not be wholly without interest, and may even add a trifle to the sum total of slowly accumulating data which we have good reason to hope will lead to the assignment of radium to its proper place as an agent in the treatment of skin lesions.

Following the usual practice, I shall divide my cases into benign, pre-cancerous and frankly malignant conditions. In general, it may be said that radium gives so much better cosmetic results than surgery, that upon the face and hands the mere consideration of appearance may lead the patient to urge the use of this element, whether or not the condition is such as to lend itself peculiarly to this therapy. In that type of lesion coming under the general classification of "birth marks"—which make up so large a percentage of benign cases and which with few exceptions are treated solely for cosmetic reasons—radium is especially useful, and even in those few instances where its employment may be contraindicated, the temptation to use it is always very strong.

Vascular Naevi.—Following the subdivisions used by MacKee, three clinical types of these "marks" may be considered: Naevus flammeus ("port-wine mark"), naevus vasculosus ("strawberry mark"), and cavernous angioma. These types have been thus postulated by this author. "The elevated types of naevus vasculosus yield to radium in the most striking manner. Even the cavernous naevus will disappear under safe therapeutic dosage. It seems paradoxical but the superficial port-wine mark is exceedingly recalcitrant. The types that respond well begin after birth and continue to increase in size for weeks and months. There is a numerical increase in the blood vessels which are dilated, abnormally cellular, and which continue to develop by budding processes. In other words, a new growth in which the cells are more or less embryonic in type. When irradiated it is probable that mitosis is arrested, new vessels cease to form and finally the poorly differentiated cells composing the vessels fail to be replaced and are absorbed. The troublesome port-wine mark is fully developed at birth, the cells are mature, well differentiated and not very active. It can, perhaps, be likened to telangiectasia. To cause an obliterating endarteritis in telangiectasis, spider naevus and port-wine mark requires an amount of treatment that may seriously injure normal tissue."

This was written in 1921 but the more recent publications regarding the use of radium in this class of new growths are for the most part, equally enthusiastic. Clark found that the vascular types of naevi are much more responsive to radium than the cellular and pigmented lesions. Strawberry marks he treated by plaque applications of 80 to 90 minutes with a filtration of 1 mm. brass and 4 or 5 mm. of rubber, taking care to avoid producing much erythema. "A faint level whitening of the skin" was regarded as a satisfactory final result. He also obtained good results on cavernous angioma by using cross-fire applications. When the lesion was upon the cheek, the applicators were placed both inside and outside the mouth, the dose given to the mucous surface being about one-third less than that upon the outside skin.

Of the port-wine marks he speaks more enthusiastically than most of the other writers I have examined. He found radium to be the best curative agent he had ever tried, but admitted that the "end-results are far less proportionately perfect than in the vascular or cavernous type of lesions." In his experience the technique was easier to use in young subjects, though great care was necessary to avoid severe reaction. "It is regularly necessary to stop short of a complete removal of the discoloration, leaving a faint pinkish color, which, however, is apt to disappear considerably with time." Burns found the flat port-wine stain the most difficult in which to get satisfactory cosmetic results. Small marks he was able to remove with quarter-or half-strength applicators, using nothing more than a .1 mm. thick aluminum screen. Extensive marks he found more satisfactorily handled by the ultra-violet ray. All other vascular naevi, he decided were more amenable to radium than any other agent he had employed. "The deeper angiomata require considerable gamma radiation to bring about their involution, and, for this type radium in tubes, radium emanation or full strength applicators should be employed, filtering out at least fifty per cent of hard beta rays, either by brass or lead filters or by metallic filters combined with distance filtration."

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

In a period of five years Robinson of New York City treated 81 cases of cavernous angioma and 17 port-wine marks. In his opinion, "splendid cosmetic results should be obtained in almost every case, providing careful methods of radium application are used. In the port-wine marks a super-erythema dose is desired, using a plaque of radium needles, or an unscreened radium plaque." Such applications were repeated every four to six weeks for about a year. For cavernous angiomata he used surface applications from a 50-milligram radium tube screened with brass and hard rubber, or 10-milligram needles without screenage. Very deep angiomata require more radiation and less distance, in order to reach the remote parts.

My own experience has in general, coincided with that of the workers quoted. Three cases have been selected to illustrate my methods and the final results in handling naevi of different types.

Case I.—Baby M. L. G., six months old. Nothing abnormal in delivery, but after birth it was noted that there was a soft mass, dark red in color and about the size of a five-cent piece, upon the nose close to the right inner canthus. The lesion was raised about an eighth of an inch above the level of the surrounding skin. An infantile eczema was also generalized over the entire body, and it was not until this condition had been treated and considerable improvement in evidence, that it seemed wise to undertake any measures for the removal of the naevus.

On March 20, 1926, the first radium application was made, consisting of one millicurie hour of beta radiation, application lasting one minute and six seconds; together with a twenty-five millicurie hour dose of gamma radiation, applied for twenty minutes. Reaction was in evidence about ten days later, and when this had subsided, the lesion was flat and had disappeared except for slight scarring, and a few minute red points still visible in the healed area. September 10, 1926, an unscreened radium emanation plaque delivering a dosage of three-quarters millicurie hour, was applied for twelve minutes, this treatment producing no reaction other than a slight reddening of the surrounding skin, after which there was complete disappearance of the naevus, with excellent cosmetic result.

Case II.—Baby I. G., 7 months old. After a normal delivery the angioma was observed as a somewhat spongy red mass, about an inch and a half in diameter, slightly raised from the left cheek. This naevus increased in size steadily until at the age of six months it was perhaps an inch and five-eighths in diameter and stood out prominently upon the skin, so that the child was greatly disfigured.

The first application was made December 14, 1925, and consisted of a radium emanation plaque screened with one millimeter of lead, giving an approximate total dosage of 180 mc. hours; length of time of application, twelve hours, giving 25 millicurie hours gamma radiation per square centimeter. Because of the extent of the lesion the plaque was placed in several different positions—"domino fashion." In the course of a couple of weeks the lesion gradually shrank in size, this gradual shrinkage continuing for the next four months. A second irradiation was given on April 20, 1926, improvement being continuous, and on September 26, 1926, a final application was made, consisting of applications of a total of 100 millicurie hours. The cheek now maintained its natural contour, very little atrophy being in evidence and when the little patient was last seen on March 21 of this year, the cosmetic result was very satisfactory.

Case III.—Female infant of six months. Everything normal at birth except the appearance of a raised area, dark-red in color, and located in the middle of the forehead. When I first saw her this mark had increased to the size of a ten-cent piece and stood up fully a millimeter above the surrounding skin. The treatment consisted in protection of the adjacent normal tissue by a lead shield, and the application of a plaque capable of delivering a twenty millicurie hour dosage. The first application was given July 25, 1925, the plaque remaining in position for 7 hours and 20 minutes. A mild erythema ensued, after which nothing was visible except a few dark red areas in the centre of the original lesion. On December 6, 1925, a second exposure to one millicurie hour of unscreened radium emanation by means of a plaque was made, the actual time of exposure being two minutes and 42 seconds. The final result was a hardly visible whitened scar, and when seen recently the child's appearance was quite normal, as there was no depression and the scar could only just be perceived.

Case IV.—Baby P. P., three months old was disfigured by a port-wine mark involving the dorsal surface of the fingers of the left hand, with a patch upon the wrist about as large as a quarter, and an area on the back of the hand perhaps one and a half by one and a quarter inches. The skin was a dark bluish red, but could be blanched by applying pressure.

An unscreened radium plaque delivering a dosage of one and one quarter millicurie hours beta radiation was applied for fifty seconds on November 28, 1925. The only reaction was a slight reddening perhaps ten days after, and the mark soon began to become paler and less noticeable. On February 20, 1926, a radium emanation plaque was again applied, the dosage delivered being 50 millicurie-hours gamma radiation per square centimeter. Again a slight reddening was all the reaction which occurred, and the lesion became still more indistinct, being now a light pink color. The third application was made eight months later, on October 19, 1926, using an unscreened emanation plaque delivering 1.25 mc. hours beta radiation per square centimeter for 14 minutes, 45 seconds. This baby has been examined several times since the last treatment, our most recent interview being on April 5 last, at which time there was only slight discoloration upon the hand; the skin seems quite normal in texture without cicatricial tissue, and is perfectly pliable.

Another disfiguring condition which the dermatologist is often called upon to eliminate, is keloid, and here too, radium has proved of signal service. Recent literature has recorded several really remarkable instances where these lesions have yielded to irradiation treatment, when everything else had proved entirely ineffectual. Robinson treated a girl of twenty-two whose eyelids had been completely destroyed by an acid explosion and her face covered with irregular indurated scars. The combined effects of radium and X-ray dissolved these keloids, the eyelids were repaired by a skillful plastic surgeon, and the girl was married three years after the accident occurred. Clark does not think so highly of radium, especially for old fibrous keloids, for though "a soft pliable scar results it does not seem to be the ideal method." However, "the rather severe pain which sometimes accompanies such keloidal formations, is regularly relieved by the first application." Taussig says that though the radium results with keloids are usually good "the exceptions are those of long standing which have become quite thick and hard," and in general, he is inclined to consider radiotherapy before and after surgery to be the best all-round way of handling these cases. Foerster thinks radium especially adapted to the localized hypertrophies found in scar tissue, keloidal bands, and lesions in special locations where cross-firing may be readily practiced. "The aim of treatment is to produce gradual absorption of the growth with the least injury to the overlying epithelium," and for this, the chief requisite is the elimination of all soft beta rays. Many workers do not hesitate to employ unscreened radiation, but in his opinion, greater satisfaction can be obtained when gamma radiation alone is secured by using a 0.5 mm. to 1 mm. thick silver screen, or one of 1 mm. of brass, which will produce only a mild erythema. Aluminum and rubber should be used to cut off the secondary rays given off by the primary filtration. Old fibro-sclerotic keloids will sometimes yield to the unfiltered radiation in purposely destructive dosage, but such technique should never be generally recommended.

In my work with keloids, I have placed the greatest consideration on the size and duration of the lesions. It is of paramount importance to irradiate the base, no matter how thick and indurated the particular lesion may be. I do not consider any keloid adequately treated if any thickening at all can still be palpated. For small areas I use a one-quarter to one-half strength application, screening it only with one-tenth mm. of lead, or perhaps four-tenths millimeter of aluminum. This is applied directly to the skin, the exposure lasting from two to four hours. In children this dosage is reduced one-half. The results have been highly satisfactory.

Concerning the use of radium in lupus erythematosus there is still a marked difference of opinion among most experienced dermatologists. Taussig says that in thick, discoid types of this disease radium plaques may be of considerable value, but if the radium therapy does not act favorably at once it should be promptly discontinued. My own observations have led me to believe that in the discoid type we can only hope for atrophy as a result of radium application, and in order to get this, and be assured of eventual healing, we practically always have to repeat the applications. It is wise to place the radium applicators so that they extend well over the normal skin which surrounds the affected areas. In the treatment of the disseminated type of lupus erythematosus I have never used radium as a routine, still relying chiefly upon carbon dioxide snow. I did, however, treat one case of the fixed type, and had the satisfaction of seeing the lesion disappear. My complacency was, unfortunately, of brief duration, for very shortly there was a recurrence at the edge of the scar, and this soon spread so as to re-involve the treated area.

Of pre-cancerous lesions, leukoplakia and senile keratosis are perhaps, the most important. Leukoplakia buccalis which appears as whitish raised patches upon the mucous membrane of the mouth is a frequent forerunner of that most intractable and fatal form of epithelioma, cancer of the tongue, lip or cheek. Syphilis was formerly supposed to be the chief causal factor in producing this condition, but it is the opinion of Schamberg and other dermatologists who have given especial attention to this condition, that trauma, such as that from excessive use of tobacco or ragged edges upon teeth or artificial dentures, is probably of more importance. Whether radium or any other curative agent is employed, the removal of all causes of irritation and the institution of proper mouth hygiene must precede any attempts to eliminate the leukoplakia. These points find typical illustration in the following case.

Case V.—M. C., an automobile mechanic, aged 49 years. Ten years ago he had been infected with syphilis, for which he had received tardy and inadequate treatment. The Wassermann reaction, however, had been persistently negative for a long time before he came under my observation because of the buccal condition. He was an excessive smoker and in his lower jaw were six decayed teeth with jagged cutting edges. For two years previously he had noticed in his mouth a grayish-white appearance of the mucous membrane, particularly on the tongue and at the oral commissures. Hygiene of the mouth had been instituted, the teeth removed and smoking prohibited, but vigorous anti-syphilitic measures in addition to these precautions had no effect upon the leukoplakia, which seemed rather aggravated than otherwise.

Radium treatment was undertaken on April 16, 1926, using an unscreened plaque and delivering a dosage of three millicurie hours per square centimeter, which was disposed domino fashion for a period of fourteen minutes and forty seconds. A severe reaction occurred about ten days thereafter, but on the subsidence of the inflammation the leukoplakia was no longer in evidence. Healing was complete and on the several occasions when the patient had since been examined, no sign of recurrence has been detected, the buccal mucous membrane appearing normal throughout.

Elderly individuals often present such degenerative processes of the skin as cracks, fissures or warty excrescences on the lips, or patches of seborrhea or keratosis upon other skin surfaces. These are very intractable and resist healing by most ordinary agencies which are effective in younger subjects. No time should be wasted in giving attention to such lesions, for malignancy always lies in wait, and prompt attention to these relatively insignificant manifestations may avert a tragedy later on. These lesions almost always appear on the face or hands, and that exposure to the weather plays an important part in their causation is indicated by the fact that most of the patients are people who spend much of their time out of doors. In some cases I have found that Resorcin and sulphur ointment will completely irradicate these growths, but the majority need more radical treatment, and for this radium serves most satisfactorily, and gives excellent cosmetic results.

Case VI.—W. J., a farmer of sixty-four years. Two years ago he had pneumonia but his history was otherwise unimportant, except that for the past seven or eight years he had noted that there were three dry, scaly spots upon his face, one on the bridge of his nose, a second near the outer canthus of the right eye, and a third upon the right cheek. They had never caused him the slightest inconvenience.

The superficial scales were removed and on July 16, 1925, a radium emanation plaque was applied to the denuded spots; the dosage was one and one-half millicurie hours and the time of application four minutes and twenty seconds. The effect was complete disappearance of the lesions and a good cosmetic result. There has been no evidence of recurrence, and the danger of malignancy is apparently eliminated.

The treatment of frankly malignant skin lesions by means of radium has been much more fully discussed in literature than has that of benign growths, or those which are generally regarded as pre-cancerous. Some of the most spectacular results ever obtained have been on these growths, and the majority of the earlier articles on the use of radium in therapeutics have been embellished with pictures showing these disfiguring face lesions before and after radium had been applied. There has been but little question as to the value of this element in treatment, and the basal—celled type of growth in particular, has yielded readily when taken in time. The following case is typically illustrative of my rather limited experience in this field.

Case VII.—C. H. R., the president of an electric company, 69 years of age, presented a lesion of the cheek about the size of a quarter at the time I first examined him. The growth had been present for two years and had been steadily growing larger. The diagnosis was basal-cell epithelioma.

After removing the superficial crust and necrotic material, application was made of 13.7 millicurie plaque. The surrounding healthy skin was protected by heavy lead foil and the plaque screened with a millimeter's thickness of lead so as to give only gamma radiation. The applicator was kept in place fifteen and a half hours, thus giving a total dosage of 200 mc. hours. In about one month's time thereafter the lesion had healed, leaving practically no scar. The patient died of angina pectoris six months later, but up to the time of death there was not the slightest sign of recurrence.

In all the cases reported I have followed the general technical principles laid down by Dr. Joseph Muir of New York, to whom my thanks are due for supplementing my dermatological knowledge with the results of his extensive experience as a radium therapist.

For dermatological work he has designed a plaque, equipped with bare tubes distributed so as to deliver radiation of a uniform intensity over one square centimeter of skin surface. The degree of erythema produced by this plaque can be determined by the length of time the plaque is left in position upon the skin. As the radium containers are unscreened nearly all the beta radiation is delivered, so that, taking 100 per cent delivery as the standard, 3 millicurie hours over normal skin will produce a first degree erythema, and complete destruction of the superficial layer of the skin will be accomplished by 7 millicurie hours. Where no caustic action is desired—as in the flattened type of angioma—2 mch. at the outset is sufficient, increasing the dosage by a half millicurie hour in succeeding treatments at intervals of six weeks or two months. When we have to deal with lesions of the basal cell type, such as rodent ulcers, a lethal dose is essential, as deeper structures must be reached.

In the construction of the plaque, a box one centimeter square is equipped with glass capillary tubes containing radium emanation, which are evenly distributed over the bottom. The top is left open, and this open side applied directly to the skin when beta radiation is needed. If gamma radiation alone is desired, the side against which the radium emanation containers are arranged is equipped with a screen consisting of ½ mm. thickness of lead or silver, supplemented by secondary filtration of aluminum foil and ametal rubber. In the treatment of deep-seated lesions the position of the plaque is reversed, the side containing the filtered radiation being placed against the skin. In applying the beta plaque to large areas care must be taken to avoid cross-firing, and when the "domino-fashion" of application is employed, a space of 2 mm. must intervene between each area of skin upon which the plaque is placed.

Dosage is calculated as follows: A beta ray plaque containing 30 mc. of radium emanation to deliver dosage of 3 mc. hours: $\frac{3\text{ mc.}}{30\text{ mc.}} = \frac{1}{10}$ hr. or 6 min. Therefore, the time of application of the plaque should be six minutes. The same 30 mc. plaque filtered to deliver a dose of 50 mch.: $\frac{50\text{ mch.}}{30\text{ mc.}} = 1.66$ hours, or one hour and forty minutes application time.

In children and infants, one half the adult dosage should be employed.

The successful radium treatment of skin diseases requires a combination of experience in this particular branch of medical practice with the clinical use of radium therapy in a wide variety of pathologic conditions. When the dermatologist can command this specialized knowledge either by long personal experience, or by working in conjunction with some one else who has had it, his results are likely to be more immediately satisfactory, and permanently effectual, than under any other conditions.

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THIRD GENERATION SYPHILIS*

By LEONARD W. JONES, M.D., ROCHESTER, N. Y.

IN the twentieth chapter of Exodus and the fifth verse lies the Biblical authority for the possibility of syphilis appearing in the third generation. "For I the Lord thy God am a jealous God and visit the sins of the fathers upon the children unto the third and fourth generation."

Now whether the reader agrees with Pusey and many others that syphilis did not occur in Biblical times, that it was brought to Europe by Columbus' sailors from America and whether he also holds with many clinicians a grave doubt as to the possibility of third generation syphilis, the fact remains that there is a widespread belief among laymen, founded, no doubt, on the words from the second commandment that syphilis can occur in the third and fourth generations and this belief is not confined to laymen alone.

The article on syphilis in the Encyclopedia Britannica supposedly written by Sir Clifford Albutt has this to say on the subject:

"Syphilis may show up in the third generation but on account of the possibility of intermediary infection, it is difficult of proof."

Then in the "Principles and Practice of Medicine," Osler and McCrae, Edition of 1922 there is this "Is syphilis transmitted to the third generation? The discovery of the treponema answers this question. The disease can be carried through as many generations as are able to reproduce. This makes a thorough study of the family for several generations an important aid in the diagnosis of congenital syphilis."

Franklin Plumley, Chief of the Venereal Clinic of the Rochester General Hospital and the writer believe that we have discovered a family in which there is fairly reasonable proof that the sins of the fathers have descended to the third generation and we present the case-histories of that family for consideration.

The first generation is the grandmother. She consulted me in 1922 with an iritis. She is of foreign birth, is an active old lady, apart from her eye condition is reasonably healthy and yet had a four plus Wassermann.

This grandmother was brought to the office by her young married daughter, age 24. With them was a two-year-old boy. This daughter was a very pretty girl and she and her young son, while not examined for syphilis at the time, showed no external evidences of disease. The boy was a fine healthy specimen, but had had blotches on his face and feet when a baby.

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* Read before the Staff Conference, February 27, 1927, Rochester General Hospital.

A year later this daughter, in her seventh month of pregnancy, brought in this now three-year-old boy with a well advanced case of interstitial keratitis. I accepted the interstitial keratitis as a proof of syphilis in the child and did not take a Wassermann on him but a Wassermann of the father was negative and of the mother four plus.

During the period of her pregnancy she had twenty intravenous salvarsans at the hands of her family physician who also treated the boy with mercurial inunctions under the armpit every second night. At the end of her pregnancy she gave birth to a son who has so far shown none of the stigmata of syphilis although he too has a four plus Wassermann.

On September 9, 1926, the older boy was brought back to the writer with a swelling over the left side of nose and the tear sac of the left eye. The history was that he had fallen off a porch four weeks ago striking his face. He did not complain of pain but the nose began to swell.

An examination of the nose showed marked ulceration of the mucus membrane of the left lower turbinate and he was sent to the Rochester General Hospital for a culture to be made for possible Vincent's. This was negative.

The following day the writer removed a small piece of dead bone loose in the nose and presumably from the lower turbinate. He was too unruly a patient to make an exact examination. At my suggestion his family doctor turned him over to the Venereal Clinic for intensive anti-syphilitic treatment which he is now receiving.

In the *Lancet* for January 20, 1923, there appeared the case of a young woman age 23, who came to a London Hospital with interstitial keratitis. C. F. T. East, who reports the case, suspects the girl's grandfather as the guilty party he having been a soldier on foreign service, dying of senile decay at the age of seventy-one.

To quote from East "In the 17th century, Van Helmont thought that syphilis might be transmitted to the third generation, Sanchez expressed the same idea in the 18th century. On the continent lately the idea has found much support. Barthelemy was in favor of it being possible. Fournier has urged strongly that the transmission of syphilis undoubtedly does occur and has collected a number of cases. In Germany, Schultz has supported the view. Sir Johnathan Hutchinson, however, did not agree with this and G. F. Still considers the question undecided."

If there is any weak point in the case we have submitted, it would appear to be a reinfection in the person of the married daughter. Dr. Plumley and the writer have questioned her very closely on certain intimate features of her sexual life and are thoroughly satisfied that her syphilis was transmitted and not acquired.

EDITORIAL

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For list of officers of County Medical Societies, See this issue, advertising page xxviii.

MEDICAL TESTIMONIALS

The leading article of the Legal Department of this Journal is on the subject, "The Endorsement of Commercial Products by Physicians."

It seems incredible that over eleven thousand physicians who received samples of cigarettes should certify to their non-irritating qualities in testimonials like those of quack medicines. No one would have believed that to be possible unless the manufacturer had sworn that he received 11,105 signed testimonials of doctors in praise of cigarettes.

When almost one-tenth of the practising physicians of the United States give testimonials for the price of a small carton of cigarettes, it is high time that the profession gave heed to the suggestion of our legal counsel to embody a condemnation of such practice in the Principles of Professional Conduct.

DOCTOR WILLIAM GILMAN THOMPSON

William Gilman Thompson, who died on October 27th, in his seventy-first year, was one of the best known and most respected physicians and medical teachers of New York City. He inherited a strong sense of social and community help from his father, who was a pastor. He was friendly and honest, and intensely active in everything that he undertook. He filled the chair of professor of medicine in both the Bellevue and the Cornell Medical Schools, and was prominent on the public health committee of the New York Academy of Medicine for seventeen years. His most recent activity was in the management of the Reconstruction Hospital, where wounded soldiers and those injured in industrial accidents were restored to health and, if necessary, were taught new means of livelihood.

Hundreds of doctors throughout New York State will recall with satisfaction the hours during which they sat under the instruction of Doctor Thompson and caught his enthusiasm and high ideals.

MEDICAL NEWS

There has been a gratifying response to the appeal for medical news expressed at the conference of county secretaries on September 15, and published in the October first issue of this JOURNAL. The response would not have been forthcoming if the officers and members of the county societies were not already taking a deeper interest in organized medicine and in public health activities. The increased interest became evident in 1924 when it was already sufficiently developed to justify the officers of the State Society in employing a full-time executive editor and an executive officer to do field work. Then in 1925 came the increase in dues to ten dollars per member, which enabled the State Society to broaden its activities and to come into closer contact with the county societies and their members throughout the State. The field of organized medicine has now become so broad that a considerable part of the time of the President is occupied in field work and in conferences with the leaders of allied organizations that are doing public health work. New fields of activity have been opened up, particularly that of graduate education. Courses of instruction have been taken to the members of county societies, and physicians in rural districts have been inspired to undertake new lines of practice, such as immunizing children against diphtheria. While the foundations for these newer activities were laid by the officers before 1924, their evolution has come during the last four years and their further development will fall on the willing shoulders of the officers who will serve in the future.

The development of the newer activities of organized medicine are recorded in the pages of this JOURNAL to an extent that is surprising to those who will take the trouble to peruse its pages during the last four years. But these records will continually increase as the local societies broaden their scope of work to a degree that is commensurate with that of the State Society.

The standards for the acceptance of medical news was stated by the Publication Committee in an editorial on page 1199 of the November first issue of this JOURNAL. In addition to an increased number of records of society activities which are inspiring models for other groups to follow, there have come a large number of items that have only a local or ephemeral value, however great their immediate interest may be to those members who are already somewhat acquainted with the localities in which the news has developed. This material could be recorded in local periodicals similar to those published by several of the county societies, such as Queens, Bronx and Erie.

WHAT PART OF THIS JOURNAL DO YOU READ?

Some doctors who take a number of medical journals say that they glance through the indices and mark the articles that interest them. The surgeon marks the articles on surgery and skips those on the eyes and pneumonia. The specialist is interested in the news regarding the societies of his corner of practice.

Everybody should be interested in news regarding the general societies to which the great majority of physicians belong,—the State, the District Branches and the Counties. Every issue of the JOURNAL contains items which record the progress of the societies in making it possible for doctors to discharge their civic duties. The files of this JOURNAL during the past four years contain what is probably the most complete record of the evolution of modern activities of medical societies. This record will arouse the interest of any physician who follows it month by month.

Get the habit of reading the News Notes of your State JOURNAL.

THE INDIVIDUALISTIC DOCTOR

Medical thought, like that along any other line, often goes in cycles. A generation ago the doctor was intensely individualistic, and conducted his practice with little regard for his fellows. Then the specialists sprung up and the family doctor learned to send them his difficult cases.

Next came the medical laboratory with its refinements of histology, chemistry and bacteriology, and the family doctor yielded more of his independence and often relied on the technician for a diagnosis.

Departments of health developed a diagnostic service and compelled the unwilling physician to make an exact diagnosis in contagious cases, and practically forced him to apply the proper remedies which were supplied by the State.

Doctors finally began to wonder where all this yielding of their personal independence would lead, but the predicted calamities failed to materialize. Physicians are more than ever prone to refer their cases to specialists, to patronize the laboratories, and to cooperate with health departments. But now, instead of being dominated by those agencies, they use them as helpers. The doctors are returning to an individualism based on scientific knowledge and impelled by a sense of civic duty toward their medical brethren and the public.

LOOKING BACKWARD

This Journal Twenty Years Ago

Christian Science.—Twenty years ago Christian Science healing was discussed to a much greater extent than at present, and "Healers" were making extravagant claims for their system. This JOURNAL for November, 1907, says:

"Judge Gray, of Indiana, was attacked by the Eddyites in communications to the public press because he rendered a decision unfavorable to that particular cult. When asked for his opinion off the bench, this is what he said:

"The argument that people get well under their ministration, and that many people believe in the doctrine proves nothing. Thousands of people got well without medicine or prayer or faith hundreds of years before Mrs. Eddy was born. Every educated physician knows that the inherent recuperative forces of the human organism tend to restore the afflicted. The doctor seeks to aid by furnishing favorable conditions. Nature heals a cut. It is only the simpleton who would sing or pray when the gaping wound ought to be sewed up. A broken leg will get well after a fashion, without treatment of any kind, but much sooner and better under intelligent coaptation. Prayer won't set a broken leg and it is humbug to talk about it. Prayer will not destroy the germs that cause consumption, malaria, typhoid, diphtheria or even the itch. The human organism cures, medicine assists. That some good people believe in Christian Science proves no more in its favor than the same fact proves the infallibility of Mormonism or Mohammedanism. Some people will believe anything, especially if afflicted in body and mind. Sometimes the more ridiculous the proposition the more intense the faith. And then, again, Christian Scientists claim that it is God that does the curing, and that they are the only fellows that can get Him at it. What do you think of that? Now, if God is going to give assistance in curing the sick, why should He not aid the Christian physician who probably knows more about science than a carload of so-called healers? Christian Scientists claim to be the only fellows that are obeying the "dual commandment" to preach the gospel and to heal the sick. Better turn and re-read that commandment again. Here it is: "Go ye to the lost sheep of the house of Israel, and as you go, preach, saying, the kingdom is at hand. Heal the sick, cleanse the lepers, raise the dead, cast out devils." This is the golden text of Christian Scientists. They scold the people because they only preach, while they do the whole thing. But they don't. They violate the commandment constantly. First, they are commanded to go to the lost sheep of the House of Israel. They don't do it at all. They never treat a Jew. Not much. The Jews are too smart to be caught that way. They work on the Gentiles exclusively."

MEDICAL PROGRESS

The Treatment of Whooping Cough.—At the Montreal General Hospital during the past five years whooping cough has been treated by a variety of methods, the results which are summarized by R. R. Struthers, Mary Childs, and W. R. Kennedy (*Canadian Medical Association Journal,* September, 1927, xvii, 9). Among the drugs used was a mixture containing phenazone, tincture of belladonna, and paregoric, with which they had no greater success than anyone else. Bromides were of some value, and when used in sufficiently large doses, distinctly prolonged the interval between spasms at night. Ether injections, in children old enough to cooperate, seemed to have a beneficial effect in securing more sleep. Since it seems that convulsions in whooping cough are a manifestation of tetany, as a prophylactic against this manifestation, cod-liver oil was given as a routine in all cases. Luminal was given with some effect, especially in older children, in allaying the fear of spasms and affording longer intervals of rest. Comparatively large doses are required, ½ to 1 grain three times a day being frequently needed in children six to eight years old. The use of vaccines was more successful. The vaccine was prepared from known cultures of *B. pertussis* secured from patients in the clinic and contained five billion Bordet-Gengou bacilli per cubic centimeter. (Commercial vaccines were used occasionally.) The children received four or five doses of this vaccine, one every second or third day, the doses being ½, 1, 1½ and 2 c.c. The vaccine produced a comparatively rapid fall in the lymphocytes, which was, however, less marked than the total leucocyte fall. This treatment apparently distinctly shortens the total course of the disease — *i.e.*, both the spasmodic stage and the stage of subsidence. Early treatment, that is before the end of the first week of the cough, is necessary to produce any marked effect in shortening the disease. The total course of the disease in the whole series of cases treated by *x*-rays was shortened more than in those subjected to any other form of treatment. The technique consisted in giving doses of 200 kilovolts, 25 milliamperes, at 50 cm. distance, using 1 mm. copper and 1 mm. aluminum filters. The time of exposure was from one-third to one minute, according to age. The treatments were localized to areas covering the roots of both lungs, anteriorly and posteriorly at each treatment, repeating weekly. The authors' studies indicate that four weeks is a sufficient length of time for isolation.

Syphilitic Infection from the Cadaver.—Erich Hoffmann of the University of Bonn, has made an exhaustive collection of alleged cases of this transmission, partly through sending out a questionnaire. The gross total is 38 cases, of which 4 are reported without enough documentation, while some doubt as to genuineness is present in 14 more. This leaves a net of 20 properly authenticated cases, the observers of which were mostly men with superior qualifications for diagnosis. With one exception the primary lesion seems to have been on one of the digits. In 15 cases the cadaver was that of a congenitally syphilitic child, the tissues of which are known to abound in spirochetes, and in addition to necroscopists and other medical men the victims included ordinary dead house attendants and laboratory servants. It seems established that transmission may occur more than 24 hours after death. The great rarity of transmission is shown by the fact that men with extensive experience have never encountered a case, but the element of care to avoid cadaveric infection must not be lost sight of. The course of the infection for whatever reason was somewhat paradoxical, for in some cases it was of late supervention, in others overlooked, and there was more than common severity, for three victims presented malignant syphilis and a fourth early cerebral involvement. This severe course appears strange when it is borne in mind that the virulence of the spirochetes ought to be somewhat weakened by sojourn in the dead body, and absence of early and thorough treatment must be charged up as an unfavorable factor. This weakening of virulence if really present would account for the infrequency of cadaveric infection. The view that malignant syphilis is due to an unusually intense allergic reaction determined by low virulence may find some confirmation here, where no less than 3 cases were recorded.—*Deutsche medizinische Wochenschrift,* September 2, 1927.

Responsibility for Tetanus Death. — In a paper by A. Krecke discussing the proper time to inject prophylactic tetanus serum, the following forensic case is cited. Last summer a 15 year old boy in climbing a barbed wire fence pricked his foot. Although the wound was trifling, fatal tetanus soon developed. A damage suit resulted with the idea of fixing the degree of responsibility of the attending physician and the insurance company. A university professor testified that had the case come to his clinic the patient would have received an immunizing injection of tetanus serum which would definitely have rescued him. A compromise was effected in which damages were assessed jointly on the physician and the insurance company. The author goes exhaustively into the duty of physicians and hospitals to use immunizing injections in order to escape the charge of neglect. Certainly every wound in which earth or street dust has penetrated should be treated thus and no exception is to be made in wounds which have promptly been disinfected or even have been excised outright. Asepsis, including excision when practicable, should also be carried out in full. Every physician, the author says, should keep on hand two vials of antitoxin of 20 units each. In Germany, after a death from tetanus, the government prosecutor takes the initiative to fix responsibility. The size and character of the wound cut no figure and any trivial wound wherein dirt may have entered is suspicious—dog bites even when trivial, contusions as in door jams, splinter wounds, etc. Although the vast number of such injuries will have no bad sequelæ the medical man can take no chances, for death by tetanus shows that there was something omitted from the treatment. The personal belief of the medical man may be disregarded and even if he is sceptical as to the presence of tetanus bacilli in a wound and has doubts as to the prophylactic efficacy of the antitoxin he cannot afford to take any chances.—*Münchener medizinische Wochenschrift,* August 12, 1927.

Final Results of Gastric Resections for Cancer.—Mauritz Persson presents a study of 1,150 cases of gastric cancer, excluding cancer of the cardia, operated upon at the Seraphimer Hospital of Stockholm during the period 1887-1926. Of the 1,150 cases, 361 were resections, with an operative mortality of 28 per cent.; 450 were gastroenterostomies, with an operative mortality of 23.1 per cent., and 339 were exploratory operations, with a mortality of 17.1 per cent. Resection was performed on 210 men and 151 women, with an operative mortality of 32.9 per cent. and 21.2 per cent., respectively. During the last 25 years the mortality has shown an evident increase from 20 per cent (1902-1906) to 38 per cent. (1922-1926). The causes of this increase are the extended indications for resection and a great displacement of material from the feminine to the masculine majority. The number of technically easy cases has been decreasing. Of 200 surviving patients 161 (80.5 per cent.) died within five years—61 in the first year, 61 in the second, and 26 in the third year. All the deaths except two were due to recurrence. In addition 12 patients died of recurrence later than five years after operation (from 5 years and 4 months to 17 years). In all these cases except one the cancer was localized to the pylorus or its immediate neighborhood. None of these patients was operated upon by the Billroth I method. Of 18 patients still living, 17 are well from 7 to 20 years after operation. All of these patients except one, were operated upon by the Billroth II and Polya methods. Thus from the point of view of durability of results the Billroth II and Polya operations have shown themselves to be absolutely superior to the Billroth I operation, transverse resection, and the Kocher procedure. Scirrhous tumors have shown a greater tendency to relapse than other forms of gastric cancer. None of those surviving the operation for scirrhous tumor has remained relapse-free, while of the other patients, 13.9 per cent. have had no recurrence. Improved diagnostic methods together with improved technique have tended to increase the number of those who have survived operation and enjoyed many years of good health. But mankind awaits with impatience a better remedy against cancer than the knife.—*Annals of Surgery,* September, 1927, lxxxvi, 3.

Roentgen Sterilization of Women—Dr. C. Holtermann discusses this subject chiefly in connection with extragenital affections. There are two distinct types, the temporary and permanent, which latter may be termed castration. Women toward the menopause may be sterilized when pregnancy is not desirable, but in the case of a young woman some vital indication must be present, such as tuberculosis, heart disease, osteomalacia, etc. The operation is much done for adnexal disease, although women with these lesions are usually sterile to begin with, with the aim of relieving the parts from the strain of menstruation. Women with leucemia, pernicious anemia, and other affections who are apt to bleed profusely at menstruation are sometimes subject to sterilization. Temporary sterilization is largely a theoretical procedure and does not seem to have been done for extragenital affections save in isolated instances. It was once assumed that ordinary sterilization was only temporary. The technique is the same for both procedures save that the dosage differs, the permanent sterilization naturally being the simpler of the two, while for the temporary operation the dose is something over two-thirds that for castration. In the latter we can go well above the book doses without fear of doing injury, but to obtain a temporary effect this is, of course, out of the question for success depends wholly on accurate dosage. Sensibility of the ovarian follicles to the rays depends on the period of ovulation, and the greatest resistance is shown by the resting primordial follicle just as the maturing follicle shows the least resistance. This cycle has to be taken into account. Roentgen doses which destroy the maturing follicle may spare the resting primordial follicle and hence are suitable for temporary work. —*Klinische Wochenschrift,* August 20, 1927.

A Method for the Induction of Respiration in the New-Born.—Writing in the *Lancet,* August 20, 1927, ccxiii, 5425, A. Louise McIlroy emphasizes the fact, recognized only during the past few years, that vigorous and energetic methods of treatment of an infant born in a state of shock and suspended animation are a mistake. As a result of considerable research upon the cause of antenatal and neonatal deaths, she reached the conclusion that the supply of carbon dioxide to the infant would make up for its deficiency in the blood. It is well known that respiration occurs as the result of stimulation of the medulla by the reserve of carbon dioxide in the blood. If this reserve is lost by energetic movements, as in artificial respiration, pulmonary function fails to become established unless a fresh supply is forthcoming. The most suitable treatment for white asphyxia is to wrap the infant in a warm towel or blanket, remove the mucus from the mouth and nose, employing aspiration by catheter, if necessary, and when the cord is cut transfer the infant to a cot well warmed with blankets and hot water bottles. If the heart is only faintly beating, stimulants such as camphor or strychnine may be given hypodermically. The mask of an apparatus which the author describes is applied to the infant's face, and a gas mixture of 95 per cent. oxygen and 5 per cent. carbon dioxide is given at very low pressure. The mask is applied and withdrawn at the rate of about sixteen times a minute. The cylinder is then changed and pure oxygen is given for several minutes. The administration can be carried out in a cot with a curtain or in a special wood and glass "breathing box." The latter, though not essential, ensures an even temperature (75° F. for the new-born). After the infant breathes it is placed in a cot and subsequently is cleaned with olive oil. The apparatus consists of a 15 cubic foot cylinder containing the gases, which communicates with a safety pressure apparatus by which the quantity and pressure of the gases are regulated. The slightest respiratory movement will be recorded on a manometer. Ordinarily the rate of flow is adjusted to 2 liters per minute. This gas mixture is also of value in cases of cardiac and respiratory failure under anesthesia.

Serum Treatment of Scarlet Fever.—Professor Schottmüller of the Hamburg-Eppendorf Hospital, discusses this subject at length, and it is of interest to note that as far back as 1895 he had recognized the presence of hemolytic streptococci in pure culture in the tonsils and certain other organs of scarlet fever patients. At that time of course, he did not accuse them of causing the disease. The Moser serum which was subsequently prepared from streptococci appeared to have some influence over the disease, and after a long period of latency the Dick toxin and antitoxin came to the front in connection with efforts at immunization and treatment. The author has used the antitoxin extensively in a material of 270 cases seen during the past year. Fifty moderately severe cases were treated with the antitoxin while a control series received no serum. There could be no doubt that the various symptoms attributed to the disease toxin were either improved or abolished outright. In regard to complications there were fewer of these under serum treatment although the ratio was only 2 to 3, and it was evident in advance that many complications cannot be prevented by the serum. Moreover the discrepancy appeared to be chiefly in the number of lymph-node infections which responded to the serum treatment while more severe complications, such as otitis media and polyarthritis, were actually more numerous under serum. Three of the 50 serum patients died, despite the fact that the toxic symptoms had yielded to the antitoxin. The 50 control patients were of a milder type than those of the serum-treated series—in fact the omission of the serum was due to the relative mildness. No deaths resulted in this series which was a justification for withholding the specific treatment. The author has reversed his former position in regard to the specific character of the scarlatina streptococcus for at present the weight of evidence has made it almost certain that it is the specific offender.—*Klinische Wochenschrift,* September 3, 1927.

Fundamental Principles in the Vaccine Treatment of Chronic Arthritis. — Kenneth Stone, writing in the *Practitioner,* September, 1927, cxix, 3, summarizes the evidence of the infectious nature of rheumatoid arthritis, and suggests that the mechanism by which focal sepsis produces joint disease may be explained by the phenomena of allergy. There is experimental evidence that an animal's joints can be made sensitive to streptococci. The hypothesis seems reasonable that rheumatoid arthritis is a result of a long succession of allergic reactions occurring in joints sensitized to streptococci. The prevention of streptococci from coming into contact with the sensitive joints should relieve symptoms and cause regression of the disease. When the infective focus is still present, and is accessible to bacteriological investigation, an autogenous vaccine prepared from streptococci isolated should be used in addition to removal of the focus. When no infective focus can be found, one should employ a mixed stock vaccine, containing a typical example of the three main groups of streptococci—salivarius, fæcalis, and pyogenes. The object is not to make the patient's blood bactericidal to streptococci, since it is doubtful that this can be done, but rather to keep the so-called antibody content of the blood at such a level that all streptococci or their products can be so altered antigenetically that they no longer produce reactions in the joints. With this view in mind it is obvious that very small doses of vaccine should be used throughout the treatment in order to avoid producing reactions in the joints. One million is large enough for the initial dose. The increase should be gradual—from 25 to 50 per cent. of the original dose. The interval between the first few doses should be three or four days, but later should be one week. Frequent reactions will make the patient worse and the treatment will do more harm than good. In order to reach doses that will be adequate the treatment must be extended over three or four months. It is advisable to give a second course of vaccine treatment six months after the completion of the first course.

Swamp Fever.—Under this term O. Werner of Breslau, describes a malady which first appeared in Silesia in 1926. It attacked principally males from 14 to 25 years of age. The incubation period showed extreme variations but was usually 1 to 2 days, and the onset was sudden and sharp although a marked chill was the exception. The picture was that of any acute febrile infection with nothing characteristic. Severe backache and pains in the calves and feeling of pressure in the eyeballs were mentioned. Objectively there was a flushed face and conjunctivitis. The duration of the fever was at the outside 7 days and the highest temperature, which was usually seen toward the end of the fever, was not over 105°. The pulse was never high and at the period of defervescence bradycardia was common. The blood pressure was low. Complications and sequelæ seem to have been absent. Thus far nothing has been learned as to the etiology. Diagnosis should present little trouble for, unlike influenza, the disease appears to spare the respiratory mucous membranes. The most distinctive phenomena are the severe pains and bradycardia with normal leucocyte count and absence of polynucleosis. Other brief febrile affections which might conceivably stimulate it are dengue and the pappataci fever, which are, however, not seen in Silesia. An affection described in 1891 as "mire fever" in Germany, seems to have been quite dissimilar for there was an exanthem in the latter while delirium was also seen. Under treatment any of the analgesic antipyretics may be used, with morphine if the pains escape relief, and adrenalin if the blood pressure goes below a certain level.—*Deutsche medizinische Wochenschrift,* September, 23, 1927.

Gynecological Foci in Relation to Various Ocular Infections.—L. Mary Moench, in collaboration with W. L. Benedict at the Mayo Clinic, has been making routine pelvic examinations, with cultures from the cervix, for nearly six years in all types of ocular inflammatory lesions, especially scleritis and episcleritis, in an attempt to correlate these lesions with pelvic inflammation in both incidence and extent. There does not appear to be any parallel between the severity of the ocular symptoms and that of the pelvic infection, but the clearing up of the foci in the cervix has been associated in many cases with striking subsidence of the ocular symptoms. The infection is probably streptococcal rather than gonococcal. Whenever there is a discharge, especially of purulent or seropurulent character, even without other signs of endocervicitis, the cervix is considered a probable source of infection. Local treatment is accordingly instituted and an autogenous streptococcus vaccine is administered. In the majority of cases so treated, when other foci have not been demonstrable, the ocular inflammation has subsided and has remained in abeyance for from one to five years or has entirely disappeared. The inoculations are given, in doses sufficient to produce slight local or focal reaction only, at weekly intervals in series of ten or twelve. It is, of course, important to detect and treat the grosser pelvic infections. If definite laceration or long-standing endocervicitis has resulted in hypertrophy, erosion, or cysts of the cervix, a Sturmdorf operation is indicated. Caution should be exercised in the use of the surgical cautery, since this procedure may result in sealing off of the racemose glands in the deeper cervical tissues and, by interfering with the drainage, throw more inflammatory products into the blood stream, thus tending to aggravate the distant metastatic disease. There is also danger of a violent focal reaction in the eye as a result of absorption of protein from tissue destroyed by the cautery. In recent and mild endocervicitis, however, linear cautery of the walls of the canal may be employed. The treatment should be as conservative as is consistent with the eradication of the focus and the importance of the ocular condition.—*American Journal of the Medical Sciences,* October, 1927, clxxiv, 4.

LEGAL

By Lloyd Paul Stryker, Esq.
Counsel, Medical Society of the State of New York

THE ENDORSEMENT OF COMMERCIAL PRODUCTS BY PHYSICIANS

In this present era of advertising and publicity, it has become a widely followed practice for the makers of all kinds of goods to advertise their wares by printing the pictures of well-known men or women together with their endorsements of the product. Thus, we are accustomed to see portrayals of dramatic critics, actors and others smoking some particular brand of cigar or cigarette and certifying that there is nothing like it. The endorsers, we understand, are not infrequently remunerated.

The propriety of this course on the part of those who furnish their endorsements, where such endorsers are members of the laity, is a matter falling within their liberty of choice, and is properly governed by their own sense of the fitness of things. When, however, non-therapeutic agents, such as, for example, cigarettes, are advertised as having the recommendation of the medical profession, the public is thereby led to believe that some real scientific inquiry has been instituted, and that the endorsement is the result of painstaking and accurate inquiry as to the merits of the product.

Despite the frequent attacks upon the medical profession, we believe that the people of this country, take them as a whole, have a regard and wholesome faith in their physicians. All that tends to the building up and strengthening of this faith redounds to the benefit of the medical profession and of its individual members, and that which in any wise tends to shake this faith and confidence works a detriment not only to the profession as a whole, but to each individual practitioner. All that tends to strengthen the faith of the people in the belief that medical opinions are founded upon a sound scientific basis, should be fostered by the profession.

Not long ago, the writer's attention was called by various leading practitioners of this city to ascertain advertisements appearing in the lay press which, if the foregoing principles are sound, would not seem to redound to the ultimate benefit of the profession. The advertisements particularly referred to are those widely heralding a certain brand of cigarettes. One advertisement portrayed a young man with a cigarette in his hand standing evidently in a doctor's consultation room, for behind the gray-haired and respectable-looking personage obviously depicted as a physician, there stands a young woman (an exceedingly attractive one) in a nurse's uniform. After display headlines giving the name of the cigarette in question, there appears this: "Then note the *verdict* of 11,105 doctors." The question was asked as to why certain singers, actors and broadcasters had found this particular brand of cigarettes "of no possible injury to their voices," and then the advertisement proceeds: "For the answer we turned to medical men and asked them this question: 'Do you think from your experience with ———— cigarettes that they are less irritating to sensitive or tender throats than any other cigarettes whatever the reason?' 11,105 doctors answered this question 'Yes.'" There is a footnote to the statement purporting to bear the certification of a firm of certified public accountants "that we have examined 11,105 signed cards confirming the above statements."

We have no knowledge as to whether or not the facts stated in the advertisement are correct, but in the absence of evidence to the contrary, we would be forced to the conclusion that the representations made are accurate; in other words, that the number of physicians certified to, had in fact endorsed this particular brand of cigarettes as "less irritating to sensitive or tender throats than any other cigarettes." We are confident that not a single one of the physicians so certifying had even the faintest idea that such a course might in any wise militate against the best interests of the medical profession.

What probably happened, we presume, is that the company sent to the doctors in question a carton or more of the cigarettes, and then later wrote them asking their opinion of them, to which in all good faith the doctors, no doubt, responded as is represented. We have no knowledge that this was the course pursued, but from our general knowledge as to the way in which advertising campaigns of this kind are conducted, think this is probably a plausible explanation.

By this advertisement, however, the general public is given the impression that there has been a real scientific inquiry as to the therapeutic effect of the cigarettes in question, and that a real scientific investigation has been made, as a result of which the conclusion has been scientifically arrived at that the cigarettes in question were "less irritating to sensitive or tender throats than any other cigarettes." It is highly improbable, to say the least, that any such scientific investigation such as doctors make in order to determine the value, let us say, of insulin or other therapeutic agents, had been made. The thinking members of the public must realize this, and those of them inclined towards a dislike or suspicion of the profession might unfortunately be led to the conclusion that professional judgment was in some instances tainted with that commercialism which would destroy its scientific value. If this is so, such conclusions would not aid in building up that confidence and respect for medical opinion to which your great profession and its individual members so richly are entitled.

In looking through the principles of professional conduct of the Medical Society of the State of New York, we find no canon which the endorsements referred to would definitely violate. The first section of those principles declares that "Everyone on entering the medical profession and thereby becoming entitled to full professional fellowship, incurs an obligation to advance the science and art of medicine, to guard and uphold its high standard of honor, to conform to the principles of professional conduct and to comport himself as a gentleman." No one for one moment will contend that any physician making a certification, such as is here mentioned, has failed "to comport himself as a gentleman." On the other hand, the question may perhaps be legitimately asked whether such a course tends "to advance the science and art of medicine and to guard and uphold its high standard of honor."

The suggestions which we have here indicated, we feel might well be a proper subject-matter of discussion among physicians in general in order that definite views upon this subject may be formulated. It is possible that the suggestions here made may not be generally acceptable. If, however, the views herein expressed seem generally satisfactory to the medical profession, to the writer at least it would seem wise if at the next meeting of the House of Delegates an additional article were added to the principles of professional conduct whereby the endorsements by physicians of purely commercial and non-therapeutic agents would be condemned. Such an article would tend to clarify the situation, and would present this question in a definite way to the entire profession. Those, then, who had not considered this matter from the point of view herein indicated, would be furnished in the shape of a definite article, a standard to which all of the profession would promptly and cheerfully conform.

FRACTURE OF RADIUS AND ULNA—PERMANENT NON-UNION

Here it is charged that on April 8th the plaintiff sustained a fracture of both bones of the left forearm, and that the defendant physician was engaged to attend and treat the fracture; that because of the careless and negligent treatment of the defendant, the fractures were not reduced or united, and that the plaintiff has permanently lost the full use of his arm, has been made a cripple and unable to attend to his ordinary business. It is further charged that the defendant had failed to apply the necessary appliances and treatment to keep the broken bones in place or to permit or cause the same to become united; and that because of the defendant's acts, the fractured bones became displaced and did not unite.

This physician had been specializing for a number of years in general and abdominal surgery, and had in the course of his practice attended several thousand fracture cases. The physician was an attending surgeon at one of the hospitals of the city where the plaintiff came under his service for treatment. While the plaintiff was examining a gas engine on April 13th, his sleeve was caught in the flywheel, causing a fracture of the radius and ulna. Upon his admission to the hospital on April 15th, an examination disclosed the following: Marked swelling, ecchymosis absent, deformity present, mobility absent, false point of motion present, crepitus marked.

On April 15th, the day of the patient's admission to the hospital, the defendant under a general anaesthesia of ether performed an operation for the reduction of the fracture. His technic, as shown by the hospital record, was under-extension and counter-extension with manual pressure at point of fracture, at junction of middle and lower thirds of left forearm. The fragments were approximated in good alignment. Provisional side splints were applied, orders being given to place the whole upper extremity in an aeroplane splint with extension bands applied, so as to keep up continuous extension to preserve alignment.

On April 18th, a report of X-ray showed the fracture of the middle third, both bones of the left forearm, position good. On April 20th, the forearm showed poor callus formation, otherwise the patient's general condition was good. An X-ray taken on April 25th showed transverse fracture, middle third, left forearm, radius and ulna, with upward displacement of lower fragment of ulna. On April 30th, the defendant put the patient's arm in a moulded plaster splint. An X-ray taken on May 1st showed a transverse fracture of the middle third of both bones, left forearm with impairment of interosseous space, marked posterior bowing at site of fracture.

On May 2nd, the defendant physician removed the cast, and examined the patient's forearm. Mobility at elbow and wrist were practically nil because of extreme pain. There was a slight amount of tenderness and swelling over the site of fracture. Crepitus was still elicited. There was not much callus formation. The patient at this time desired to go home, and was advised to stay at the hospital, but refused to continue, and left the hospital against the advice of the defendant and other physicians.

After leaving the hospital, the plaintiff called on the defendant physician at his office, and on May 3rd examination of the arm disclosed that there was no union at the site of fracture, but there was a slight callus formation. There was also considerable restriction of movement in the elbow and wrist joints. The defendant at this time advised and administered massage of the arm and hand and passive motion of the wrist and elbow. Electricity was also applied to the injured parts to improve the nutrition of the whole limb and to induce better conditions at the site of the fracture. The splints were replaced after each treatment.

Between May 10th and June 14th, the patient visited the defendant at his office six times. The findings and treatment of the defendant during this period were that towards the end of May it was considered advisable to remove the moulded plaster splints and use in their place a leather cuff which enveloped the forearm at the site of fracture and above and below for a distance of several inches. The patient was advised to move the wrist, elbow and fingers.

He was not seen by the defendant from June 14th until July 3rd. At his visit in June, the defendant had advised him that a further operation would undoubtedly be necessary, as the defendant's examination disclosed that there was little or no union. The patient objected to any further operation. On June 3rd, when the patient called on the defendant, he was again advised of the necessity of an open operation, and told to return to the hospital for that purpose. Nothing further was heard from the patient until about three months later when the physician again saw the patient at the hospital, and again advised the patient of the necessity of an open operation, to which the plaintiff refused to consent. The patient was not again seen by the defendant physician.

When last seen by the defendant, the stiffness at the plaintiff's elbow had largely disappeared, there was also marked improvement at the wrist, but not to as great an extent as at the elbow. The movement of the fingers was fairly good.

A physical examination of this patient made almost three years after the occurrence of the accident showed that he had an ununited fracture of both bones of the left forearm, that he wears a leather support, that his forearm gives evidences of extensive operation scars which were perfectly healed, but there was no bony union of either bone, and a plate which had been inserted in his arm rattles around, giving no support.

About six months after the plaintiff last saw the defendant, he came under the care of another physician who, upon examination, found an ununited fracture of the radius, and advised an open operation, the patient consenting to the same and entering a hospital for that purpose. This surgeon performed an open operation, and inserted a Lane plate after bringing the ends of the fractured bones in apposition. After the operation, this surgeon had several X-rays taken, which showed the bones in apposition. The patient remained in the hospital for about three months, during which time he had a cast on from his shoulder down to the hand. This surgeon was likewise unable to get a bony union at the site of fracture. The Lane plate remained in position, no infection set in, and all that the second surgeon could see was that the bones would not unite. When the second surgeon was convinced that he could not get a union of the fractured bones, he suggested to the plaintiff that the Lane plate be taken out, but the patient refused to undergo another operation for this purpose.

After discharge from the second hospital, the plaintiff kept calling on the second surgeon at his office. This surgeon then had a brace made for the plaintiff's arm. When last seen by the second surgeon, the plaintiff had the use of all of his fingers and hand motion, but there was no strength in the arm, except that which the brace gave him. This surgeon does not feel that any form of operation would result in a bony union. This surgeon was of the opinion that the artery supplying the radius was injured in the original accident, which thus prevents bone nourishment and is the possible cause of the failure of the bony union.

After pending for several years, this action was abandoned by the plaintiff and never brought on trial.

NEWS NOTES

THE FIRST DISTRICT BRANCH

The Twenty-first Annual Meeting of the First District Branch of the Medical Society of the State of New York, composed of the six counties of New York, Bronx, Richmond, Rockland, Orange, and Westchester, was held on October 20, 1927, in the Concourse Plaza Hotel, 161st Street and Grand Concourse, Borough of the Bronx, under the presidency of Dr. Edward R. Cunniffe of the Bronx.

The morning session was devoted to addresses by the officers of the State Society. Dr. James E. Sadlier, President, discussed the aims and activities of the Medical Society of the State of New York, dwelling especially on the two phases of the education of the physician, and the discharge of the civic duties in which medicine is concerned. The members of the First District Branch are favorably situated so far as education is concerned. They require little assistance from the State Society, but on the contrary, they can assist the State Society in its program to take the opportunities for education to their brethren in the counties remote from teaching centers.

The practice of civic medicine offers a large field in the First District where great organizations, such as the City Department of Health and Dispensaries, may overshadow the public health efforts of the individual doctor. While a physician, acting alone, can have little influence in the fields of public health, the organizations of physicians can exert a great power in directing public health activities along medical channels.

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, amplified Dr. Sadlier's remarks about medical education and described the courses which are offered to the county societies.

Dr. W. Warren Britt, Chairman of the Committee on Medical Economics, described the work of his committee, especially its relation to workmen's compensation.

Luncheon was served at half past one to about one hundred members. Other physicians came to the afternoon meeting, so that the total attendance was about five hundred,—probably the largest at any meeting of the First District Branch.

The afternoon was given over to a scientific session. The first speaker was the Honorable James A. Hamilton, Industrial Commissioner of the New York State Department of Labor, who spoke on the subject: "The Workmen's Compensation Law in its Relation to the Physician." This paper was practical, and was well received by the physicians. It is published on page 1238 of the Scientific Department of this JOURNAL.

Dr. Russell LaFayette Cecil, of New York City, gave an address on the subject, "Facts in the Etiology of Chronic Arthritis."

"The Indications for Radium Therapy in Intra-Uterine Conditions" were described by Dr. William P. Healy of New York.

Dr. John DeJ. Pemberton, of the Mayo Clinic, Rochester, Minnesota, described the "Causal Factors in the Surgical Mortality of Exophthalmic Goiter."

POST-GRADUATE INSTRUCTION

Dr. Thomas P. Farmer, Chairman of the Committee on Public Health and Medical Education, announces that the following courses have been recently arranged:

Montgomery County Course in Obstetrics
Amsterdam Hospital

October 20th, Prenatal Care, Dr. Paige E. Thornhill, Watertown.

October 27th, Postpartum Care, Dr. Stuart B. Blakely, Binghamton.

November 3rd, Pathology of Pregnancy II, Dr. James K. Quigley, Rochester.

November 10th, Pathology of Pregnancy II, (To be announced).

November 17th, Pathology of Labor I, Dr. James Harrar, New York City.

December 1st, Pathology of Labor II, Dr. Paul T. Harper, Albany.

Oneida County Courses in Pediatrics

October 28th, Periodic Health Examinations, Dr. L. C. Schroeder, New York City.

November 4th, Infant Feeding, Dr. Charles Hendee Smith, New York City.

November 11th, Malnutrition, Dr. Hugh Chaplin, New York City.

November 18th, Tuberculosis in Childhood, Dr. G. W. Graves, New York City.

November 25th, The Importance of the Laboratory in Pediatrics (Nephritis, Pyelitis, etc. Blood and Spinal Fluid Examinations).

December 2nd, Heart Disease in Childhood, Dr. John D. Lyttle, New York City.

WASHINGTON COUNTY

The annual meeting of the Medical Society of the County of Washington was held at Hudson Falls on October 4, 1927, beginning at 4:30 P.M. with ten members and seven visitors present.

The treasurer reported a balance of $67.93 available.

The report of the comitia minora was given, consisting mainly of preparations for the annual meeting.

The following officers were elected for the year 1928: President, Dr. S. T. Fortuine; Vice-President, Dr. W. S. Bennett; Secretary, Dr. S. J. Banker; Treasurer, Dr. R. C. Paris; Censors, Drs. B. C. Tillotson, L. M. White and J. E. Armstrong; Committee on Legislation, Drs. W. A. Leonard, R. E. LaGrange and D. M. Vickers.

Dr. W. A. Thomas was elected a member.

Dr. Rogers for the public health committee reported that a new nurse had been employed and that her work was going on smoothly.

Dr. Munson reported that one prenatal clinic had been held with ten patients.

The annual dues of the society were raised to two dollars.

Dr. R. C. Paris, Jr., D.D.S., read a paper on the relation of dentistry to general medicine.

The members dined together at the Carleton.

In the evening meeting it was voted to approve the recent action of the Cattaraugus County Medical Society in its stand taken to support a modest county Health Department without the aid of the Milbank Fund.

Dr. William A. Krieger gave a paper on sinus disease in children.

Dr. M. Smith gave a paper on the advantages of controllable spinal anesthesia to the general practitioner, illustrated with motion pictures.

S. J. Banker, M.D., *Secretary.*

HERKIMER COUNTY

The following news item is of interest, because it illustrates the manner in which the country districts are being denuded of their doctors:

Dr. Edgar C. Swift, the only practitioner of the town of Warren, Herkimer County, died on September 21, aged 70 years, after a general breakdown. He had practiced medicine in the town of Warren for forty-six years and was prominently identified with the civic and social activities of his town. The community is now left without a doctor, for the nearest physician is seven miles away. Dr. W. B. Brooks, Secretary of the County Society, writes, "If only some Doctor would go to Warren he would make a nice living and more. The winter practice would be hard, but the summer would be delightful."

COUNTY OF SULLIVAN

The Medical Society of the County of Sullivan has taken a stand in regard to Public Health work and is represented by a committee consisting of Drs. Rayevsky, Van Keuren and Payne in the reorganized Sullivan County Health Association, which is the old Sullivan County Tuberculosis Association (a branch of the State Charities Aid).

The Committee consisting of five members, three from the Medical Society, and two from the Sullivan County Health Association, have the direction of the public nurse. The nurse has done excellent work in the anti-diphtheria campaign and we are shortly beginning another type of school work.

In November we are starting our second series of post-graduate lectures. Last year's lecture course on gastro-enterology was excellent and well attended—also the two lectures on cardiology.

Luther C. Payne, *Secretary.*

COLUMBIA MEDICAL SOCIETY

The annual meeting of the Columbia County Medical Society was held at The Worth, Hudson, N. Y., Tuesday, October 4, 1927, President John W. Mambert, M.D., presiding.

Members present: Drs. Bradley, Collins, Diefendorf, Early, Galster, Garnsey, Mambert, Maxon, Noerling, C. G. Rossman, Skinner, Shank, Taylor, Tracy; guests: Drs. O. D. Chapman, John E. Heslen, and Assemblyman Henry James.

The following officers for the ensuing year were elected: President, Burke Diefendorf, M.D.; Vice-President, N. D. Garnsey, M.D.; Secretary and Treasurer, C. R. Skinner, M.D.; Censors: Drs. Van Hoesen, C. G. Rossman, Collins, Noerling and Maxon; Delegate to State Society, C. L. Nichols, M.D.; Alternate delegate to State Society, H. J. Noerling, M.D.

Samuel J. Post, M.D., of Philmont, was elected to membership.

The treasurer's report showing a balance of $100.70 and a membership of 37 was read and accepted as read.

The committee appointed to make a survey of needs and requirements of a State Aid County Health Laboratory offered the following report:

To the Medical Society of the County of Columbia, the following report is submitted by the undersigned members of the special committee on State Aid Laboratories:

1. The committee favors the establishment of a county unit of the State Laboratory.

2. After careful canvass, we offer no recommendations for the particular location of this laboratory, feeling that it is a matter to be left to the discretion of the Board of Supervisors.

3. From a survey of reports from other counties, where such laboratory units are maintained, the needs of Columbia County can be met within economic limits.

4. For information, we state figures that will give approximate costs of a laboratory in counties of this size. They vary from $4,500 to $8,200; these amounts being equally divided between the state and county. It should also be noted that the state individually will give up to $2,500 for first equipment.

5. We recommend that the Society take steps to present to the Board of Supervisors the need of such a laboratory for the people of the County of Columbia, and give such facts as will show how economically such a unit may be established and maintained.

Most respectfully submitted:

Henry C. Galster,
Henry J. Noerling,
Frank C. Maxon.

The report of the committee was accepted.

On motion of Dr. Galster, the secretary was instructed to petition the Board of Supervisors in the name of the Society in regard to the establishment of a Public Health County Laboratory. Unanimously carried.

Adjourned for lunch.

The meeting was reconvened after lunch with President-elect Dr. Burke Diefendorf presiding. President Mambert's address on Public Health was well received.

The remainder of the program consisted of a comprehensive idea of the Public Health Laboratory by Dr. O. D. Chapman, director of the Bureau of Laboratories of the City of Syracuse, and an instructive address on "Handling the Prostatic Patient" by Dr. John E. Heslen of Albany.

The President-elect appointed the following committees: Public Health and Post Graduate Education: Dr. S. V. Whitbeck, Chairman; Dr. H. C. Galster, Dr. J. W. Mambert, Dr. W. D. Collins, Dr. N. D. Garnsey; Legislative: Dr. C. G. Rossman, Chairman; Drs. L. Van Hoesen, H. J. Noerling, F. C. Maxon, C. L. Nichols.

C. R. Skinner, *Secretary.*

Editorial Note:—Accompanying the account of the Medical Society meeting, the secretary sent an excellent newspaper clipping of a column giving a description of the meeting and a summary of those parts of the proceedings that had a special interest to the public. Of special interest was the president's address calling attention to local problems in which the medical society should take an interest. Another clipping was an editorial comment on the value of the county laboratory. These articles are excellent demonstrations of practical health work done by a county society.

ESSEX COUNTY

The annual meeting of the Essex County Medical Society was held at the John Hancock Building, Ticonderoga, N. Y., October 4th, 1927, with the President, Dr. W. T. Sherman, presiding. Members present: Drs. J. P. J. Cummins, T. Cummins, W. T. Sherman, T. J. Dowd, C. M. Sarlin, M. E. Sargent, G. Knapp, and L. H. Gaus. Visitors: Dr. A. Saulter and Dr. A. M. Dickinson, Albany, N. Y.

The folowing officers were elected: President, J. Evans, M.D.; Vice-President, C. M. Sarlin, M.D.; Secretary and Treasurer, L. H.

Gaus, M.D.; Censors, Drs. Peter Noe, H. J. Harris and Edwin C. Johnson; Delegate to State Society, Dr. L. C. Barton, Jr.; Alternate, Dr. J. Breen; Delegate to Fourth District Branch, Dr. L. H. Gaus; Alternate, Dr. Gersen; Chairman Legislative Committee, Dr. C. Sarlin; Public Health Committee, Drs. M. E. Sargent, C. M. Sarlin and J. Evans.

A report of Conference of Secretaries, held at Albany, on September 15, 1927, was given by Dr. L. H. Gaus.

The Milbank Foundation was discussed by Drs. Sherman, Gaus, Saulter, Dickinson and Sarlin.

Resolution by Dr. J. P. J. Cummins, that the Medical Society of the County of Essex approve the action taken by the Medical Society of the County of Cattaraugus, in regards to the Milbank Foundation; and that a copy of the resolution be sent to the Medical Society of the County of Cattaraugus. Carried unanimously.

Scientific Program:

(A) "Common Skin Diseases, Diagnosis and Treatment," Dr. A. Saulter, Albany, N. Y. Discussed by Drs. Sherman, Cummins and Dowd.

(B) "Injuries to Skull and Brain," Dr. A. M. Dickinson, Albany, N. Y. Discussed by Drs. T. Cummins, J. P. J. Cummins.

(C) "Fractures," Dr. T. J. Dowd, Ticonderoga, N. Y.

(D) "Demonstration of Radiograph with report of cases," Drs. J. P. J. Cummins and M. E. Sargent.

There being no further business before the Society, meeting was adjourned 5:15 p. m.

Luncheon was served at the Moses Ludington Hospital.

L. H. Gaus, *Secretary.*

SENECA COUNTY MEDICAL SOCIETY

The annual meeting of the Seneca County Medical Society was held at the Willard State Hospital on October 13, 1927.

The following officers were elected for the year 1928: President, Dr. E. W. Bogardus, Romulus; Vice-President, Dr. W. M. Follette, Seneca Falls; Secretary and Treasurer, Dr. J. N. Frost, Waterloo; Delegate to the State Society, Dr. R. M. Elliott, Willard; Alternate, Dr. R. S. Pettibone, Willard; Delegate to Seventh District Branch, Dr. A. Letellier, Seneca Falls; Alternate, Dr. F. W. Lester, Seneca Falls; Board of Censors, Drs. Lester, Bacon and Bellows.

Dr. Charles S. Barnes of Waterloo reported for the Committee of Physicians appointed by the Society to conduct clinics for the examination of children of pre-school age under the Shepherd-Tower Act. He reported that four clinics were held, one in each of the villages of Waterloo, Seneca Falls, Ovid and Interlaken and over one hundred children were examined. These clinics were so popular that there was a request for their resumption this fall by parents in various parts of the county. There was also approbation on the part of physicians of the fact that defects found in the clinics were being referred to them. It was decided to continue the clinics through the year 1928.

Dr. George M. Brandt of Seneca Falls reported a fair attendance at the mid-summer meeting of the Society held at the Seneca Falls Country Club on August 4, 1927. A splendid dinner was served and a profitable talk given by Dr. J. J. Levy of Syracuse on "Advances in X-Ray and Radium Therapy." It was decided to continue this feature every summer.

The scientific session was addressed by Dr. W. H. Lang, of the staff of the Willard State Hospital, on the "Treatment of General Paralysis." The paper was interesting and instructive and dwelt on the recent treatment of this disease by the induction of malaria in the patients, and the results obtained. The paper was discussed by Drs. Lester, Elliott and Letellier.

The meeting was attended by Dr. Schuyler S. Lott of Waterloo, the oldest practicing physician in Seneca County. Dr. Lott is over 85 years of age and is in his sixtieth year of active practice. He recalled the dedication of the first building at Willard in 1852 which he attended. This was erected to be a State Agricultural College, but this was later transferred to Ithaca at the founding of Cornell University and the building later formed the nucleus of the Willard State Hospital.

Joseph N. Frost, *Secretary.*

THE MEDICAL SOCIETY OF THE COUNTY OF ONEIDA

The Medical Society of the County of Oneida held a regular meeting on October 11th, in the Central New York Institution for the Deaf, in Rome. Members of the Society were guests of the Institution at a luncheon.

Dr. H. L. Shaw, Chairman of the Milk Commission, reported that bacterial counts of specimens of milk in Rome were taken weekly.

Dr. William Hale, Jr., Secretary of the Society, gave an account of the conference of the county secretaries in Albany, on September 15th, when he described the activities of the County Society in relation to the location of the Oneida County Society.

The Committee on Obituaries made notice of the deaths of Drs. O. W. Burhyte, M. J. Davies, and C. D. Hart.

Drs. Frederick L. Patry, James G. Douglas, Earl H. Adams, H. N. Wallace and Neil D. Black were elected to membership.

The meeting was then turned over to Professor Betts, who explained the various types of deafness which could be treated in the school, and described the ways of reclaiming these deaf children and educating them to be useful citizens.

Miss Wildt demonstrated with her class the mechanism of speech, giving some of the first steps in developing speech, teaching the movements of sounds, words and sentences.

Miss Struppler demonstrated the vowel sounds as the initial steps in building a vocabulary, showing how the sounds are conveyed to the child and how the child reproduces them.

Miss Vaughan gave a demonstration of acoustics and tactile impressions, showing how the child may receive vibrations through the finger tips and reproduce spoken sentences. She also showed how the piano could be used to impress rhythm work upon the children.

Professor L. M. Elstead, Principal of the Wright Oral School of New York, gave a talk on the subject of "Hard of Hearing" and demonstrated an electric testing device which is essential before determining what type of teaching is most beneficial to the child.

Professor Joseph Keating gave a brief discourse on the subject of stuttering and stammering, and showed how they could be corrected.

The interpretation of the subject was new to most of the physicians present, a large number of whom readily confessed their inability to advise patients intelligently for such treatment. One of the great values of the instruction was that it showed the physicians where they may go for advice regarding correction of defects of hearing and voice.

Wm. Hale, Jr., M.D., *Secretary.*

CLINTON COUNTY

Clinton County has joined the ranks of those county medical societies which issue their own Bulletins. Bulletin No. 1 contains a two page program of the annual meeting of October 18th. It also contains the following announcement of a post graduate course, similar to that which was given in Montgomery County in March, 1926, and reported in the August 15, 1926 issue of this Journal.

"The committee has secured Dr. Harris A. Houghton of New York City to give a course on Cardio-Nephritis. The course will consist of six sessions, each session being a combined lecture and clinical demonstration. Beginning with the mildest type of case, discovered usually by accident or on routine physical, with slight elevation of blood pressure, and perhaps a trace of albumin in the urine, but no symptoms, the moderately and far advanced types of cases will be considered. As far as possible actual patients will be secured for clinical demonstration of the effects of diet and other treatment and observed from week to week. Both hospitals and the physicians of Plattsburgh will cooperate in securing clinical material, laboratory work and the keeping of records.

"Glycosuria and diabetes incident to high blood pressure will be taken up and one session will be devoted to the metabolic preparation of cases for operation.

"At the conclusion of each meeting Dr. Houghton will briefly discuss any articles on Metabolism that have come out in the last Journal of the A. M. A. and he asks that everyone bring his last Journal with him.

"Dr. Houghton comes to us well recommended, having given a similar course last year at Amsterdam, which was well attended and highly appreciated by all.

"The meetings will be held Monday afternoons at 3:30 beginning October 24th, at one of the hospitals in Plattsburgh (due notice being given in each case) and will last about one and one-half hours.

"In order to make proper provision for attendance, etc., all who desire to take advantage of this opportunity are requested to fill in and mail the enclosed card promptly. Separate reminder notices of each session will be sent to all who register."

MEDICAL SOCIETY OF THE COUNTY OF MONROE

At the regular meeting of the Medical Society of the County of Monroe, on October 18, 1927, Dr. James E. Sadlier, President of the Medical Society of the State of New York, gave a comprehensive summary of the various activities of the State Society.

Dr. J. S. Lawrence, Executive Officer of the State Society, gave an address on the subject "A County Health Unit" explaining the history of the development of such an idea, its purposes and possibilities. There was considerable discussion of the subject by a number of the members, the general trend being that the Society should reserve any definite expression of opinion on the matter until it should be demonstrated that such a unit would be an improvement on the present method of doing public health work in this county, and a definite plan or program, in detail, for such a unit should be presented. With this in mind, on motion, it was unanimously carried that the President appoint a committee to investigate and study the question, reporting to the Society at a future meeting.

J. P. Henry, M.D., *Secretary.*

KINGS COUNTY MEDICAL SOCIETY

The first fall meeting of the Medical Society of the County of Kings was held in the McNaughton Auditorium of the Society's building, on the evening of October eighteenth. After a short executive session reviewing the applications from those seeking membership, the major part of the evening was devoted to a scientific program considering the adolescent individual and crime.

The speakers of the evening, together with the titles of their addresses follow:

"Adolescent Mentality and Crime," by Dr. John F. W. Meagher.

"Juvenile Crime and Its Cure," by Hon. Charles J. Dodd.

"The Child and the Man," by Dr. Bernard Sachs.

Without any collusion or prearrangement, their addresses agreed to remarkable degree in placing the cure for crime in the home.

When President Thurston S. Welton rapped with his gavel to open the first of the stated meetings, he faced an audience filling the auditorium and overflowing into the rear aisles. Included in the audience were many women guests who were attracted by the popular appeal of the scientific program.

Dr. John F. W. Meagher, who has had much experience as the official examiner of those indicted for major crime, pointed out four factors in the criminal makeup—defectiveness, psychosis, psychopathic personality and character traits. The three forces combatting crime are conscience, religion (call it "ethical sense" or "social values" if you will), and law. He admired Osborn who has said "the aim of punishment is reformation," and he scored a noted lawyer for stating that any criminal who says he wants to reform is lying.

Honorable Charles J. Dodd, District Attorney of Kings County, prefaced his address by expressing his appreciation for the courtesy and professional manner with which members of the medical profession have conducted themselves as witnesses, and in other roles in Court. He punctuated his address by citing some surprising statistics. The age incidence of offenders convicted of felony in Kings County is 32 per cent under 21, and 18 per cent under 25 years of age. In New York City during 1925, 1,190 children were charged with burglary, and 1,334 with stealing. The cure he suggested is to lessen not only parental neglect, but also parental overindulgence, and try to teach children obedience to law and respect for authority. He deplored the closing of playgrounds after school hours and urged that there be more ball parks and recreation centers.

Dr. Bernard Sachs, former President of the American Neurological Association, in his address said, "Do not let the 'bogey of heredity' poison your minds and do not put forth the doctrine of heredity as an excuse for inefficient parental care and improper educational methods.

"Development of character requires early training while the child is still imitative. Then the family and the physician have the best opportunity to persuade the child to abandon bad habits. Children should associate with others after the age of 1½ years to learn tolerance. A good regime is to develop kindness and industry as early as possible. Then combat lying. He suggested that boys and girls should play together up to the ages of ten to twelve, after which the sexes should be segregated, for ours is a 'sex-age,' and sex is ever before the adolescent eyes through the motion pictures, drama, books, dances and prevailing styles of dress. Even child study is 'oversexed'.

" 'Freudianism' is in vogue mainly because of its appeal to women who subconsciously enjoy the titillation to their libido when being quizzed by men on so intimate a subject.

"Children who are raised on purely scientific methods by mothers endowed with a smattering of psychology, have often been misfits in a social and family sense. Mothers are sometimes misled by the salacious doctrines of the Austrian school into unwise sex education of their children. 'Sex' should be faced frankly, but only when the child reaches need for knowledge—not before."

Dr. Sachs emphasized the custom of relegating the early training of the child to the busy mother's duty, when the growing child needs the father's point of view and training. In the laboring and middle classes especially, fathers tend to shirk family duties. Child guidance needs the attention of more fathers.

The volume of the applause and the lively discussion groups formed as the audience was leaving, indicated the popular appeal of the program of the evening.

TOMPKINS COUNTY

The October meeting of the Tompkins County Medical Society was held in the Chamber of Commerce parlors, Ithaca, N. Y., Thursday evening, October 20th. The reading of the minutes of the last meeting was dispensed with.

The report of the Comitia Minora was made by reading of the minutes of the August meeting.

President Leo P. Larkin then announced the appointment of the following as composing the Committee on Public Relations: Dr. H. E. Merrian, Chairman, and Drs. L. T. Genung and Minor McDaniels.

The Secretary read a communication from the A. M. A. urging the cooperation of County Medical Societies in the Program of "American Education Week," November 7-13 next. Dr. L. T. Genung, School Physician of the city of Ithaca, stated that so far as he knew, the Board of Education has as yet made no plans for its observance, but, if they did so, he had no doubt they would welcome the cooperation of the County Medical Society.

After some discussion as to how the society could best do this, the following motion was made, seconded and passed: *"Resolved,* That it is the sense of this meeting that it is desirable for the Tompkins County Medical Society to put on one or more additional public lectures."

President Larkin then introduced the speaker of the evening, J. P. Garen, M.D., of Olean, N. Y., President of the Cattaraugus County Medical Society, who gave an address on the subject of the experience of the medical profession of his county with the Health Demonstration there, as administered during the past five years by the County Board of Health and the State Charities Aid Association, as disbursing agent for the Milbank Fund. These two agencies have disbursed, or had at their disposal during that time, approximately $550,000. Dr. Garen was emphatic in believing that county health units, if wisely operated, are the best way of caring for public health problems. Cattaraugus county physicians are not opposed to a county health unit as such, but to the details of its operation under the Milbank Demonstration. Dr. Garen felt that the control of county health organizations should be within the county and not in the hands of any outside lay organization. The physicians in each county, he said, were best able to study and know the local situation.

After some discussion, and questions asked and answers given, the society gave Dr. Garen a vote of thanks, and then for a time resolved itself into a social gathering before dispersing.

Wilbur G. Fish, M. D., *Secretary.*

SCHOHARIE COUNTY MEDICAL SOCIETY

The seventieth annual meeting of the Schoharie County Medical Society was held in the Hotel Augustan, Cobleskill, N. Y., on Tuesday, October 18, 1927. The meeting was called to order by the President, Dr. Meleatus Bruce.

The officers for 1928 were elected as follows: President, Meleatus Bruce; Vice-President, C. L. Olendorf; Treasurer, L. R. Becker; Secretary, H. L. Odell; Censor, W. T. Rivenburgh; Delegate to State Society (with power of substitution), J. J. Beard.

Legislative Committee, H. R. Bentley, Chairman; L. R. Becker, C. L. Olendorf and D. W. Beard.

Public Health Committee: H L. Odell, W. S. Pomeroy and L. Driesbach.

Publicity Committee: J. J. Beard, C. L. Olendorf and H. R. Bentley.

Public Relations Committee: E. S. Simpkins, M. Bruce and H. L. Odell.

Treasurer: L. R. Becker; reported all bills paid and a balance of $103.36 on hand.

It was voted that Section 4, Chapter IX, of the By-Laws be amended to read, "Five members shall constitute a quorum." A motion was duly made, seconded and carried that one hundred copies of the amended By-Laws be printed.

A recess was taken for luncheon, after which a scientific session was held.

Dr. George E. Beilby, of Albany, N. Y., presented a most excellent and helpful paper on "Goiter."

Dr. Arthur Sautter, of Albany, N. Y., read a paper on "Skin Diseases."

The excellence and timeliness of the papers, their full discussion and the clinic made this meeting a very profitable one to all present.

H. L. Odell, M.D., *Secretary.*

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on October 19, 1927, was called to order at 9 P.M., with the President, Dr. Friedman, in the Chair.

The following physicians were elected to membership:

Nicholas Michelson
Anthony Miseo
Meyer S. Rednick

Dr. Boas, for the Committee on Public Health and Medical Education, reported on the results of the Periodic Health Leaflet Campaign and urged the members to obtain the blank examination sheets from the Bronx Committee of the New York Tuberculosis and Health Association, 400 East Fordham Road.

Dr. Lukin, for the Committee on Medical Economics, reported regarding the problem of Open Hospitals.

Dr. Weitzner, Chairman of the Social Committee, reported on the activities of the Committee for the past year and also on the proposed coming affair.

The Secretary, Dr. Landsman, presented the report of the Nominating Committee.

The President presented Dr. Edward R. Cunniffe, President of the First District Branch. Dr. Cunniffe outlined the program of the Annual Meeting of the First District Branch, which is to be held on October 20th. Inasmuch as it is the first time that the Bronx County Medical Society has been hosts to the First District Branch, he urged the members to attend the meeting as well as the luncheon that will take place between the morning and afternoon sessions.

The program of the evening then proceeded as follows:

1. Address by James E. Sadlier, President of the Medical Society of the State of New York.

Dr. Sadlier expressed his pleasure at the report of the Committee on Public Health and Medical Education and discussed at length the subject of Periodic Health Examinations. He then dealt with the appointment of the Public Relations Committee by the State Society. In order that that step shall be effective, each county organization should have its Committee on Public Relations cooperating with and leading the various health agencies in the respective counties. Dr. Sadlier also dealt at length with the subjects of Public Health and the Medical Practice Act.

2. Address by Joseph S. Lawrence, Executive Officer of the Medical Society of the State of New York.

He discussed the research work of the State Society. He stated that the new General Bronx Hospital should not be alone for the care of the patient but should be for the general advancement of medical practice in the community. He then dealt at length on the subjects of the enforcement of the Medical Practice Act, the medical aspects of the Workmen's Compensation Law, and public health activities.

3. Paper: Involvement of the Nervous System in Diseases of the Blood, Joshua H. Leiner.

4. Pathological Slides, Arthur Weil.

The paper was discussed by Drs. S. Philip Goodhart, Moses Keschner, Israel S. Wechsler and Dr. Ginsburg.

I. J. Landsman, M.D., *Secretary.*

MEDICAL WARES

DIABETIC FLOUR

Diabetic flour was designed to reproduce a bread that contains little or no starch or sugar. The greatest demand for it comes from those persons who had diabetes, and who had been ordered to live on a diet low in starch and sugar. The modern science of nutrition shows that diabetic flour also has an enlarging field of usefulness in forming balanced diets in rheumatoid conditions, intestinal disorders, and overweight.

To design a balanced diet that is satisfactory to the patient is both a science and an art whose application requires much skill on the part of the doctor or the dietitian. The most difficult element to estimate is the carbohydrate. Protein is readily obtainable in meat and cheese, and fat is available as butter; and the amounts of food rich in both of those elements may be easily increased or diminished to the satisfaction of the patient. But most common foods—the vegetables, the cereals, and the fruits—contain carbohydrates in great excess of that required to form a balanced diet; and if these foods are restricted to supply the proper amount of carbohydrates, the body starves from the lack of the proteins and fats.

All people have their peculiar food habits which are hard to change. Americans like plenty of bread and other cereals, and it is largely from these that the excess of carbohydrates come. If therefore a patient could obtain a bread or cereal that is free from carbohydrates, he could probably eat a satisfactory quantity of fruit and vegetables, and yet not exceed his allowance of starch and sugar.

A bread which patients will continue to use must taste nearly like ordinary bread, or else they will tire of it, and will not eat it. The bread must also be as easy to make as ordinary bread, or else it will often not be made. These conditions are well met by some of the preparations on the market.

Diabetic flours are of two classes according to their bases:

1. Casein flour.
2. Gluten flour.

A flour which is actually free from starch and sugar has casein as its basis. About two-thirds of the casein is ordinary insoluble casein, and one-third is sodium caseinate which is soluble and forms a sticky solution like that formed by gluten. The stickiness of the soluble casein may be judged by the fact that it is the basis of the glue which is used in making airplane propellors. The soluble casein gives the quality of maintaining lightness to the flour after the dough has risen. The insoluble casein takes the place of the starch in giving tenderness and texture to the bread.

Another ingredient of diabetic flour is hemicellulose which is derived from a tropical nut which consists almost entirely of the pure substance. This is ground to particles about the size of those of the finely ground bran; but since it is pure white, its color in the flour or loaf is not noticeable.

Hemicellulose can not be digested by the human digestive juices, although cattle digest it readily. Its use is to give bulk and texture to the loaf.

Since the flour has casein for its basis, it is rich in minerals. The flours on the market also contain leavening material and are self-raising.

A typical diabetic flour—one that is accepted by the Council of the American Medical Association—has the following composition:

	Per cent
Protein	70.9
Ash	5.3
Fat	0.7
Leavening, fiber, etc.	13.0
Moisture	10.9
Starch	None
Sugar	None

A low calory flour suitable for bread and muffins may be made by combining the casein and hemicellulose in varying proportions. A vegetable gum having a composition resembling that of gelatin is also used in order to supply the sticky quality which is lacking when only a small percentage of casein is used.

A bran made starch-free by cooking under high steam pressure, hydrolysis by enzymes, and washing, is also used in making dry breakfast foods resembling the common flaky foods that are on the market. The use of bran, hemicellulose and gum makes it possible to prepare a tasty breakfast dish which has no food value at all.

The second class of diabetic flours is prepared from gluten as a basis; but gluten bakes to a hard flinty crust which can scarcely be eaten. Since gluten is a by-product of the manufacture of starch, it is cheap and theoretically should be adapted to making flour. But practically it is mixed with ordinary flour. A gluten flour is really a high protein flour. The government enforces the requirement that flour must contain 40 per cent of gluten in order to be labelled gluten flour; but it still contains about 25 per cent. of starch and sugar.

THE DAILY PRESS

OPIUM PRODUCTION

The amount of opium that is grown annually is ten times that which can be used legitimately; the rest is used for narcotic purposes whose effects are universally conceded to be bad. The government of Persia, one of the great opium-producing countries, is trying to control the production of the poppy, and has decreed a ten per cent reduction annually for three years. However, the government is finding the same difficulties that confronted the United States in freeing the slaves, for the people have come to depend on poppy raising for one of their great means of support. Those who raise poppies in Persia have little concern for the moral degradation of those who smoke the opium five thousand miles away.

The statesmen of the leading nations are giving heed to the protests of the government of the people who are suffering from the use of opium, and the League of Nations is bringing great pressure to bear upon the governments of the poppy-growing countries to restrict its production to legitimate amounts. Persia is responding, but in doing so it is confronted with the probability of subjecting its own people to suffering in an amount greater than that of the people who are the ultimate buyers of the opium. A great economic situation cannot be disrupted without producing wide-spread suffering.

The *New York Times* of September 15, commenting on the attitude of Persia, says editorially:

"Persia is not yet equipped with the means of transportation for bulky goods. The problem has been to find substitute crops that can be transported thought the building of roads; and the consequent increasing use of motor vehicles will make it less necessary to think of weight and bulk. The commission, under the chairmanship of Frederic A. Delano, who at great personal sacrifice, undertook the survey, recommended, first, the substitution of food crops and silk for opium; second, the adoption of intensive agricultural methods beginning with simple improvements which the farmers could themselves apply; third, the development of home industries (as the spinning of silk in the homes, which would reduce the bulk to be transported); and, fourth, the improvement of transportation. This is a large order for a people who are as a whole poor —'very poor'; who have suffered from famines, disease and civil war; who have but scanty rainfall except in the north, and so much depend upon irrigation; who find it difficult to change their ways of doing things, and who are, moreover, generally without the opportunities for education in new methods.

"Persia sets an example of courageous abnegation as she undertakes to change her culture of centuries for the sake of the rest of the world though to her own immediate loss."

WHY PEOPLE GET HURT

The *New York Times* of September 7 has an editorial on the statistics of accidents affecting human life and health. The greater proportion of crippling accidents occur as the result of industrial pursuits. These are charged against the industry, even when the individual and not the industrial establishment is to blame. The *Times* rightly questions the reliability of accident statistics when it says:

"The chief present need of the safety campaign is better facts about the real causes of accidents. Usually many possible causes are involved. Some are human; the victim or his companions did something wrongly. Others are material; some tool or machine or floor board or other object behaved in the wrong way. It is difficult to sort these out. When a workman slips on the floor and falls against a machine that mischance may be ascribed, often with equal justice, to careless walking, to too smooth a walkway, to insufficient lighting, to a machine unduly exposed, or to any one of a dozen other causes. Who shall say which is the one cause that is to appear in the report and thence in the accident statistics?

"The isolation of cause and effect, which is an essential of the scientific method, is a Procrustean expedient when applied to the real world. Facts must be stretched, others lopped off, until some kind of fit is obtained. It is to be suspected that present-day accident reports, upon which the statistics are necessarily based, do not fit the facts of accident causation as well as they might. Here is an important problem for industrialists, engineers, physicians and psychologists. All of them will be needed before it is solved."

An element that is not always considered is the tendency of those hurt to magnify their injuries in order to collect greater compensation. Ambulance surgeons are well aware of the fact that the victims of accidents wish to have the seriousness of their injuries made as great as possible. A sprain is a break; fear is shock, and loud outcries are the expressions of intense physical pain. Physicians often find that attendance on accident cases is an undesirable burden, both at the time of the injury and later when he is dragged into court an unwilling witness.

RATING A PHYSICIAN

How nice it would be if every physician were rated publicly as to his ability! Some people seem to think it can be done, and at any rate they act upon that supposition. Every successful physician maintains his prestige because of the spontaneous recommendations of those whom he has treated. If a doctor is successful in one case, the natural conclusion of his patients is that he is likely to be successful in all other cases that he treats.

It is at this point that the element of character enters. The reliable doctor will know his own limitations, and will not assume a knowledge that he does not possess. Whatever his appearance of confidence and assurance may be to the patient, he will quietly seek advice so that every available means of diagnosis and treatment is utilized. A fundamental requirement of a physician is character. Doctors make an accurate estimation of the character of every one of their fellow practitioners, and they rate character above professional ability and knowledge. They expect a doctor to apply every bit of his ability to a case, and to seek professional help when he has exhausted his own resources. It is to the great credit of doctors that they will go freely to the assistance of a brother doctor when he needs help in diagnosing or treating a case.

These thoughts were inspired by a letter in the New York *Times* of September 8, referring to the death of a boy who was treated for plain stomach ache during four days, following his injury with the bullet of a forbidden rifle. The correspondent suggests that the mistakes of doctors be published so that "their records" may be considered when selecting a doctor. A bureau should be established somewhat along the lines of the commercial and financial bureaus referred to by business men when they desire to get a line on a firm or an individual. A standard should be set and a doctor rated according to his skill and ability. His financial success may or may not be a worth-while index. Competent physicians would doubtless welcome a "weeding-out plan."

The correspondent confuses reliability of character with professional ability. Sloppiness and carelessness in making physical examinations are elements of character rather than of professional ability.

Doctors deplore sins of professional omission quite as much as those of commission, but they unanimously oppose publicity as a remedy for the sin or a corrective of the sinner. If a doctor is rated for his mistakes, so also must he be for his successes—and his reputation for either may be entirely undeserved.

It cannot be that the New York *Times* believes in the suggestion of its correspondent. This is an example of a letter which affords an editor an opportunity, or excuse, for calling attention to a matter without his assuming the responsibility for originating it. The device of a letter is the mildest possible way of calling attention to a condition which requires a remedy.

EVANGELISM AND MEDICAL PUBLICITY

The New York *Herald Tribune* of September 19, says, concerning church evangelism:

"The high cost of converts has determined a number of influential church leaders identified with the Federal Council of Churches on a change in the time-honored methods of evangelism. Instead of exhorting the crowd they would go direct to the individual; instead of the tactics of the showman and the effort at an emotional stampede they would use quiet personal persuasion; instead of the professional evangelist they would employ the devout layman."

Some of this same movement is taking place among public health workers; for in place of mass influence of health centers and state medicine, and widely advertised demonstrations, there is evolving the plan of individual effort by physicians and lay workers. This plan is not opposed to organized effort, but on the contrary, it lies at the foundation of the practice of medicine by organizations of both physicians and laymen. If impersonal influences could reach the people, the churches would have found it out long ago. Health centers, state medicine, and even health demonstrations are too impersonal. The work of physicians is personal. A family doctor has the best opportunity in the world to educate his families in health matters, and next to him is the public health nurse whom he recommends and supports.

If the people of the world are to be saved in health, their salvation will come through the personal influence of their family doctors.

BOOK REVIEWS

INTERNATIONAL CLINICS. Thirty-sixth Series. 1926. Volume 4. Octavo of 308 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1926.

One of the opening contributions in this issue is on diabetes when associated with acidosis, coma and infections. The author's advice is really quite unusual. He advises to give sugar in the presence of such a situation. He is quite unaware that diabetes mellitus is a quantitative disease, and gives advice for its management that anyone with the most limited experience must have found disastrous. The following articles cover a wide field, and have a varying degree of interest. Dr. Black gives one the impression that it is quite unwise to fear myxedema after goiter operations, but it has happened often enough so that it is not quite unheard of. The internationalism of the issue is represented by articles from Holland, Germany, Austria, etc. The issue ends with a review of the 1926 meeting of the Interstate Post-graduate Assemblies of North America at Cleveland, where the present trend of thought concerning many problems of medicine is presented.

J. ARTHUR BUCHANAN.

RECENT ADVANCES IN HAEMATOLOGY. By A. PINEY, M.D. Octavo of 276 pages, illustrated. Philadelphia, P. Blakiston's Son and Company, 1927. Cloth, $3.50. The little volume is part of a series of volumes known as the Recent Advances Series.

The reviewer found it so interesting that he enjoyed reading every word of it. Among the numerous examples of medical literature which fall to the reviewer's lot, this work stands out very prominently. The subject of hæmatology is well covered from the standpoint of modern investigation. Much of the material presented is the result of original research and the conclusions are obviously founded upon deep and sound thought.

Although the medical profession may not be prepared to accept Dr. Piney's theory of pernicious anemia, leukemia and allied conditions as due to a primal defect in the hæmatopoietic system his observations and deductions provide food for thought. The explanations offered, the descriptions given and the conclusions arrived at are presented in a clear, concise and enjoyable manner. It is certainly a work that no progressive physician can be without and should prove especially valuable to those interested in the vagaries of the hæmatopoietic structures and the results due to the pathologic conditions that arise from them.

MAX LEDERER.

A TEXT-BOOK OF MEDICINE. By American Authors. Edited by Russell L. Cecil, A.B., M.D. Octavo of 1500 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $9.00.

This book comprises the contributions from 130 physicians whose work in their particular branches is authoritative. There are about 1500 pages of good solid reading matter with an excellent survey of general medicine and neurology. From a diagnostic and therapeutic standpoint this book can be highly recommended.

HENRY JOACHIM.

CYSTOSCOPY. A Theoretical and Practical Handbook Containing Chapters on Separate Renal Function and Pyelography. By JAS. B. MACALPINE, F.R.C.S. 12mo of 284 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $7.00.

This excellent book comprises almost three hundred pages devoted to all the phases of cystoscopy. The work is intended more particularly for the beginner or for the occasional operator who has limited opportunity in this field. It should prove most helpful to any clinician in his earlier years of cystoscopic investigation. The work is fully and beautifully illustrated, and the colored plates are striking.

Macalpine has entered into much detail in technic, which is so essential to accurate diagnosis.

It is interesting to note that the English are still using the Nitze type of instrument. We believe, however, that the American type (Brown-Buerger) of instrument has many advantages over the Nitze, which are too numerous to mention here.

We also believe that the author's book is a real contribution to urologic diagnosis.

AUGUSTUS HARRIS.

THE NORMAL CHEST OF THE ADULT AND THE CHILD. Including Applied Anatomy, Applied Physiology, X-Ray and Physical Findings. By J. A. MYERS. In collaboration with S. Marx White, and others. With an introduction by Elias P. Lyon. Octavo of 419 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $5.00.

It seems hardly necessary to state that accurate knowledge of the normal is essential to the recognition of the abnormal, yet, so frequently is the attention centered upon the abnormal that one omits the occasional review of the normal. With this thought in mind, the author of this volume has presented a study of the normal chest, developmentally, anatomically, neurologically and physiologically; he has given clearly the different procedures used in the examination of the respiratory and the circulatory systems; physical diagnosis by means of the normal chest of the adult and of the child has been instructively presented. For clearness of expression, thoroughness and simplicity of presentation, this is a wonderful study. The typography of the book is excellent, good paper, large print and good illustrations. This is one of the best books of the year, not only upon the subject of the chest, but also upon the subject of physical diagnosis of the lungs, heart and larger blood vessels.

HENRY M. MOSES.

ULTRA-VIOLET RADIATION AND ACTINOTHERAPY. By ELEANOR H. RUSSELL, M.D., and W. KERR RUSSELL, M.D. 2nd Edition. Octavo of 429 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $5.00.

A very acceptable addition to the literature on light therapy. On comparison with the first edition of this work the present one shows many changes which bring it right up to date and add greatly to its interest and value. Among others there are very instructive chapters describing the older and the new ultra-violet generators and their respective properties. The historical and biological discussions are very interesting and thorough. The use of diathermy with light treatment is well presented, as is also the use of light in the specialties. The book is well illustrated and can be recommended as an excellent and authoritative treatment of its subject.

JEROME WEISS.

THE RELIGION CALLED BEHAVIORISM. By LOUIS BERMAN, M.D. 12mo of 153 pages, illustrated. New York, Boni and Liveright, 1927. Cloth, $1.75.

Any physician dealing with behavior disorders is interested in every phase of psychology. Of late, Behaviorism, as taught by Dr. Watson, has arrested the attention of those dealing with behavior disorders. Not a few regarded this theory as a most fascinating one, and yet one which really is inapplicable in solving mental problems. Indeed, there were not a few who looked upon it as a fad, and spoke of it disparagingly. Dr. Berman, who has popularized the subject of endocrinology, especially in its relation to behavior and its disorders, obviously belongs to the latter group. In fact, he did not hesitate to broadcast his views, and he did so in a most interesting little book, called The Religion of Behaviorism. He develops his theme in a rather convincing manner, tracing the genesis of Behaviorism, and proving its utter futility in helping to understand human problems. In so doing he indirectly praises the Gestalt theory, and offers it as a substitute to those individuals who are still engrossed with Behaviorism. It is a rather interesting little book, and goes a long way in proving the contention of those who have long maintained that there are too many people who are unfortunately unprepared either by training or experience, who readily offer advice in mental problems.

I. J. SANDS.

CITY HEALTH ADMINISTRATION. By CARL E. MCCOMBS, M.D. Octavo of 524 pages. New York, The Macmillan Company, 1927. Cloth, $5.50.

This is a complete volume of public health and welfare administrations as applied to the communities of all sizes. The author divides the volume into three parts: Municipal Health Functions, Organization and Administration of Sickness Prevention Functions, Organization and Administration of Sickness Treatment Functions. He gives the relation of municipal to state functions and the various forms of organization under a mayor and city council form of administration as well as the commission form of city administration and the manager form of city administration. He goes minutely into the various functions to be performed by health departments and public welfare departments in small as well as in large cities and draws from a great amount of personal information as well as literature to illustrate the various forms of administration. Altogether, the book is complete and will be found a valuable reference volume for any person engaged in public health or welfare administration.

He also devotes a chapter to the relation of municipal health service to other official and unofficial health agencies as well as a chapter on hospital administration and hospital planning.

H. T. PECK.

PRACTICAL OTOLOGY. By MORRIS LEVINE, M.D. Octavo of 387 pages, with 145 illustrations. Philadelphia, Lea and Febiger, 1927. Cloth, $5.50.

This book is a compilation of lectures given by Doctor Levine at the Post-Graduate Medical School and Hospital during the past twelve years. It is written in a very interesting manner and brings out all points of interest and information to the medical student, general practitioner as well as to the otologist. It embodies the experiences of a teacher and otologist. The relation of the ear to the general systemic condition of the patient is constantly kept in mind throughout the book.

This book is profusely illustrated with many helpful cuts and photographs. The anatomy of the structures is clearly put forth and the pathology of the various diseases is fully discussed.

This book will fill the needs of all students of otology and can be recommended as a reference book to the otologist.

SAMUEL ZWERLING.

EARLY DAYS OF THE PRESBYTERIAN HOSPITAL IN THE CITY OF NEW YORK. By DAVID BRYSON DELAVAN, M.D. Octavo of 191 pages, with 34 illustrations. Published privately, 1926. East Orange, N. J., The Abbey Printshop, Inc., 1926. Cloth, $1.50. (Copies may be obtained by applying to the Joint Administrative Board, 17 East 42nd Street, or to the Presbyterian Hospital in the City of New York, 41 East 70th Street.)

"Early Days of the Presbyterian Hospital in the City of New York" by Dr. David Bryson Delavan is a remarkable, brief account of the successful development of one of our finest hospital institutions from its infancy and even from its inception in the mind of that great philanthropist, James Lenox.

Dr. Delavan very concisely sketches for us the early struggles and the final attainment in the formation of training schools for nurses. He also shows us the contrast of the old time hospital methods of surgery and care of the patient and the nursing situation with the modern scientific methods.

His brief biographies of some of the old time pioneers of medicine in New York City are very interesting.

WM. RACHLIN.

A HANDBOOK OF DISEASES OF THE STOMACH. By STANLEY WYARD, M.D. Octavo of 387 pages. New York and London, Oxford University Press, 1927. Cloth, $5.00. (Oxford Medical Publications.)

In this book of about 400 pages, the author attempts to cover the entire subject of diseases of the stomach. The anatomy and physiology are among the first topics discussed and such a rare condition as Gastric Claudication is also considered.

Of many of the more important phases associated with the diagnosis of gastric diseases, such as X-ray, little is said. A discussion of Ulcer of the Stomach does not include that of Duodenal Ulcer, nor is any mention made of the latter condition. Such rare conditions as anthrax and actinomycosis are briefly mentioned.

This book has been written largely from the personal experience of the author, with only an occasional reference to the literature, and without any bibliography whatsoever.

It is a pleasure to note that a great deal of the old time-worn and impractical data has been excluded, but we feel that an attempt to cover the field in so short a treatise results in a condensation of a great many important conditions that should be dealt with at greater length.

IRVING GRAY.

THE CAUSE AND CURE OF SPEECH DISORDERS. A Text Book for Students and Teachers on Stuttering, Stammering and Voice Conditions. By JAMES SONNETT GREENE, M.D., and EMILIE J. WELLS, B.A. Octavo of 458 pages, illustrated. New York, The Macmillan Company, 1927. Cloth, $4.50.

This volume is really a digest of previous works along this line of affliction, with a great many original ideas injected into it.

The clearly defined differential diagnosis of the various types of disorders viz, stuttering, stammering and voice disorders places the treatment on a more common sense basis. The volume up to the chapters on treatment might be beneficially read by the laity as well as by the general medical practitioner.

There is all through the book, a warning signal to those, who treat this type of cases in a light manner. Great stress is put on the possibility of a psychosis developing in the neglected or carelessly treated cases.

According to the authors the stutterer is a defect of mental affliction and therefore must be treated from a psychic and psychological standpoint.

The peculiar psychic element that so often surrounds these sufferers makes the treatment rather complicated.

The Authors' outline of treatment and the careful history demanded, and undoubtedly necessary, make it so extensive that it really places the management of such patients beyond the possibility of the general practitioner.

In view of the psychosis which often prevails, a fairly good knowledge of psychiatry and the psychological insight of these sufferers must be possessed by the attendant.

S. H. D.

OUR NEIGHBORS

THE ST. LOUIS TORNADO

The medical aspects of the tornado which struck St. Louis on September 29, at 1:05 o'clock, are discussed in the November issue of the Journal of the Missouri State Medical Association in the following editorial:

"Olive Street, thickly lined with small business houses, was filled with débris from ruined and damaged buildings, telegraph, telephone and electric light wires, and made impassable one minute after the storm struck it. On Olive at Sarah Street was a building containing the offices of a number of physicians. All these offices were wrecked and the physicians' equipment ruined but no lives lost.

"The Wall Building on Olive at Vanderventer, a six-story building entirely occupied by physicians and dentists, suffered no serious damage but the electric lights, elevators and the power for X-ray and other apparatus were destroyed and not restored for several days.

"In the northern part of the city the Mullanphy Hospital was completely wrecked but none of the sixty-three patients were injured. The hospital had to be abandoned and the patients distributed among other hospitals. The Deaconess Hospital at West Belle and Sarah was damaged to the extent of $65,000 and the Shriners Hospital for Crippled Children, near Forest Park, was damaged to the extent of $25,000. No persons were injured at either of these hospitals.

"None of the buildings along Grand Avenue occupied chiefly by physicians and dentists were damaged but the Beaumont Medical, Humboldt, University Club and Metropolitan buildings were all deprived of light and power for several days. The Missouri Theatre Building where the Association has its headquarters, is the only large building in the district that was not deprived of these facilities.

"The tornado struck the city with such suddenness and passed through with such rapidity that it was several hours before those who did not live in the damaged area were aware that any serious damage had been done. The hospitals, however, soon were made aware of the casualty when calls for ambulances flowed in and numerous automobiles brought injured persons needing attention. This brought the calamity to the attention of the physicians and through the quick organization of a relief force of the members of the St. Louis Medical Society by the President, Dr. C. A. Vosburgh, and the ready activity of the Red Cross, medical aid was almost immediately furnished. Tetanus antitoxin was supplied free to all injured persons and administered at all the hospitals and by the emergency physicians. Thus far no case of tetanus has developed although the nature of these injuries would make this danger a real problem."

ORAL SEPSIS

The subject of focal infections in the mouth has been presented in medical journals frequently; but an especially practical article appears in the October issue of the *Kentucky Medical Journal* by Dr. E. C. Rosenow, of Rochester, Minn. Dr. Rosenow has done much experimental work on animals by the injection of cultures from infected foci in man, and has reproduced lesions, such as those of endocarditis, by the injections of cultures from joints of human heart patients. Concerning the elective localization of the infective germs Dr. Rosenow says:

"The best proof of the etiologic relationship of a focus of infection to a given lesion is the production of the lesion in animals with bacteria isolated from the focus in the patient.

"Through the use of special cultural methods in which due consideration was given the question of oxygen tension and the injection of animals with the freshly isolated strains, extremely characteristic localizations were obtained with *Streptococcus viridans* from patients with subacute bacterial endocarditis, and with streptococci isolated from the joints of patients with rheumatic fever before the idea of elective localization occurred to me. The peculiar localizations obtained were considered due to different species of streptococci, rather than to peculiar temporary properties of different strains of the same species. It was not until ulcer of the stomach was produced in animals during my study on the transmutation of pneumococci and streptococci with "laboratory" strains that had attained

(*Continued on page 1282—adv. xiv*)

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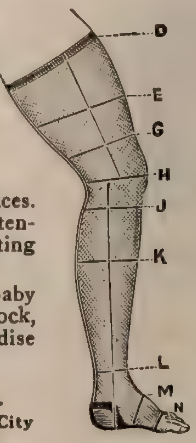

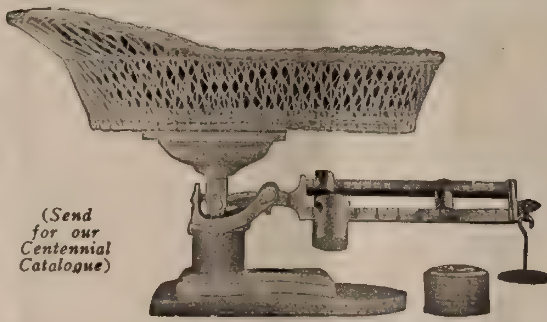

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(*Continued from page* 1280)

a certain grade of virulence from successive passage through animals that the theory of elective localization took definite form. The long series of experiments in animals that have been performed since by myself, my pupils and independent workers leaves no doubt that the elective power of the bacteria in foci of infection largely determines the location of the systemic lesion or disease a person with foci of infection is likely to develop."

Discussing latent foci the author says:

"In order to remove all doubt regarding the importance of latent foci of infection as an important factor in the production of disease, Meisser and I produced latent foci by devitalizing and infecting the teeth in dogs, thus closely simulating the conditions often inadvertently induced in persons by dentists. Nephritis, nephrolithiasis, ulcer of the stomach, spasms of the diaphragm and other muscles, and chorea have been produced in this way with culture isolated from patients with these respective diseases, and in each instance the causual relationship of the organism introduced into the teeth to the metastatis lesion has been established by the demonstration of the organism in the lesions and focus and by the elective localizing power of the strains isolated. During the latter experiments, another important fact was noted: The bacteria in the induced latent focus of infection, besides producing the characteristic disease, appeared to exert general deleterious effects. The animals lost weight and became more susceptible to intercurrent infections, although they were kept under conditions identical with those of control animals. In other words, conditions of hygiene and diet that were adequate to maintain weight and health in normal dogs were inadequate for dogs with latent foci of infection. The harm, therefore, from improper food or sanitation may be greatly exaggerated by bacteria harbored in foci of infection; a point not yet sufficiently considered.

"The fact that bacteria of the same species localize electively, depending on the degree of virulence or other acquired property, is no more remarkable than the fact that bacteria of different species tend to localize in particular organs or tissues. The loss of virulence of streptococci or other bacteria on artificial cultivation and its increase on passage through animals are well recognized. The change in localizing power likely occurs for the same reason.

"The reasons for the elective localization of bacteria are still obscure. No doubt the same principles that determine the localization or pharmacologic action of the chemicals and drugs apply here. Indeed, my experiments in ulcer of the stomach and epidemic hiccup strongly support this hypothesis. It was found that strains of the

(*Continued on page* 1283, *adv. xv*)

(*Continued from page* 1282, *adv. xiv*)

streptococci from patients with ulcer which had elective affinity for the mucous membranes of the stomach and which produced ulcer, on intravenous injections elaborated a poison of toxin within the bacterial cell and in the broth that had specific damaging effects. Injection of the washed dead bacteria and filtrates of actively growing cultures produced hemorrhage and ulcer of the stomach without inciting lesions elsewhere. Even more striking were the results following intracerebral injection of living cultures of the streptococcus from patients with epidemic hiccup, the dead bacteria, and filtrates of freshly isolated cultures. In each instance, spasm of the diaphragm or other muscles was produced. Moreover, filtrates of nasopharyngeal washings and pus from tonsils at the time of attacks sufficed to provoke spasms; whereas, similarly prepared filtrates, after recovery, were without effect."

The author says, in discussing the practical applications of the principles of focal infections:

"The practical applications of the principles of focal infection and elective localization are fraught with many difficulties. Systemic diseases, once thoroughly established and often associated with anatomic changes that in themselves may continue to give rise to symptoms even though there are no organisms present, may continue after all evident foci are removed. The instances of cure or arrest of progress in systemic diseases by the removal of foci of infection are so numerous that search for and removal of all foci possible is indicated in almost every case of serious systemic disease in which there is good clinical or experimental evidence of focal origin. In a given case the variations in the invasive power of the bacteria, the wide differences in natural or acquired resistance to microbe invasion in different persons and at different times, the age and sex, the history of previous attacks, the duration and character of the disease from which relief is sought, and hereditary tendencies must all be considered in determining when, or whether, all or certain foci should be removed, or whether the condition is indeed of focal origin.

"Infections of the dental pulp, pulpless teeth and apical abscesses are theoretically the most dangerous of the various forms of dental foci. They are usually free from symptoms and hence unsuspected. They are situated in osseous tissues which allow no expansion. They can drain only into the circulation and are exposed to pressure transmitted by the teeth during mastication. They remain active for years, and the bacteria are not encapsulated, as is usually assumed, but are found in areas of active inflammatory reaction where the formation of new blood vessels affords drainage into the circulation."

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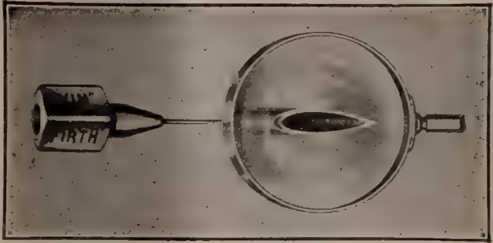

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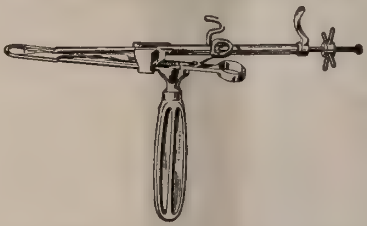

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A SET OF EXAMINATION QUESTIONS

The *Journal* of the Michigan State Medical Society often announces progressive plans that show originality. The editorial page of the August number contains the following article entitled "'You Tell Me': To the member sending in the best set of answers we will give a 1927 Edition of Aaron on Diseases of the Digestive Organs, price $11.00. To the second best set of answers, one volume of Cecil's Text Book of Medicine, price $9.00:

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"1. What is the latest treatment of pernicious anemia?

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"3. What is the present day treatment of erysipelas?

"4. What is the purpose of Hygeia, published by the A. M. A.?

"5. Give five reasons why a person should submit to a periodic Physical Examination.

"6. Where do you find the column, Tonics and Sedatives? Who writes it?

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 Chairman of the Council?
 State Commissioner of Health?
 Secretary, Board of Registration?
 President, Board of Registration?
 Dean of Detroit College of Medicine and Surgery?
 Dean of Medicine Department U. of M.?

"8. How many members in your County Society? How many eligible non-members in your county?

"9. What is the differential diagnosis of extradural and subdural hemorrhage?

"10. State five facts revealed by our Special Committee on Hospital Charity in their report published in the July issue."

PREVENTIVE MEDICINE

The October issue of the West Virginia Medical Journal quotes the following editorial from the *Baltimore Sun.*

"Once upon a time you called a doctor when you were sick. Then came the idea of preventive medicine, which in recent times has grown by leaps and bounds. It has done more than could have been accomplished by a "Use More Doctors" week. We no longer wait to be sick. We go to the doctor to keep from getting sick.

(*Continued on page* 1285, *adv. xvii*)

(*Continued from page* 1284, *adv. xvi*)

He vaccinates us against smallpox, sticks us for typhoid and again for diphtheria. If we have chronic colds, he may treat the colds but he prefers to take out our tonsils and adenoids, preventive measures against all sorts of ills, from lassitude to laryngitis. No telling what a mole may come to. Have it off. You may be in a bad way and not know it. Have a thorough physical examination and extend your life.

"Is a child bow-legged or knock-kneed, are its teeth crooked, has it a cast in the eye? These things were once regarded as acts of Providence and therefore to be left alone. Today we are led to believe that they can be corrected and that if neglected they may cause all sorts of troubles in years to come, from headaches to loss of opportunity to wed. No parent who has the true interest of a child at heart can turn a deaf ear to the dentist, the orthopedist and the optician, and another specialist must be called in to determine what the child shall eat.

"In the old days an ounce of prevention was said to be worth a pound of cure. Today we have a pound of prevention for every ounce of cure. Preventive medicine was once a luxury to be indulged in only by the wealthy. Today it is as much a part of the average up-to-date home as an electric range, an electric refrigerator, a telephone and an automobile.

"Preventive medicine, if it has not been the cause, has accompanied the transition of the family from a system of extensive culture to one of intensive culture. The family acreage has been cut down to permit of more tilling and fertilizing.

"No one would dare to question the virtue of preventive medicine any more than he would question the other improvements of modern civilization. But like most modern improvements, it makes a dent in the pocketbook."

FLY LARVÆ IN THE INTESTINES

The larvæ of two-winged insects, or flies as they are commonly called, may occasionally be found in the intestine of man and may produce a gastro-intestinal disturbance, but seldom a serious disease. The condition is called myiasis, from the Greek word, myia, a fly.

The October number of the Journal of the Arkansas Medical Society contains an article on intestinal myiasis by Dr. A. A. Blair describing the case of a man who had an itching of the rectum and a mild diarrhœa. In his stools were a large number of maggots which were small, white and pointed. The larvæ would disappear and recur at intervals all summer. The larvæ were finally identified as those of a fly, sarcophaga hemorrhoidalis, which lays its eggs in berries.

(*Continued on page* 1286, *adv. xviii*)

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(*Continued from page* 1285, *adv. xvii*)

The man gave a history of eating quantities of berries freshly picked.

Dr. H. Thibault, in discussing the paper, said that patients sometimes complained of maggots in their stools when the larvæ were those of viviparous fly which placed them on the stool after its exit from the person's body.

The doctor also suggested a method of identifying the larvæ. Place a part of the stools in an ordinary fruit jar with some earth in which the larvæ may pupate. When the adult flies emerge they may easily be identified.

PRIVATE PRACTICE AND PUBLIC HEALTH

The responsibility of the medical profession in public health organization was discussed at the Sixtieth Annual Meeting of the West Virginia State Medical Association on June 21, 1927, by Dr. J. E. Monger, State Health Commissioner of Ohio. His paper was published in the November issue of the West Virginia Medical Journal from which the following abstract was taken:

"Public health is the application of the principles of preventive medicine to control the community problem of disease. The physician's problem is the problem of his individual patient's diseases and welfare, and the public health man's problem is that of community disease and community welfare.

"It is entirely impossible to disassociate community disease and community welfare, and individual health and individual welfare, for after all the community's welfare is dependent on the presence or absence of disease in individuals. In other words, the health officer tries to do for the community what the doctor tries to do for the individual.

"We physicians have long been looking at the Public Health Movement, and I am quite sure that many of us do not see its whole purpose.

"First of all, the Public Health Movement is relatively new. And second, most of us received our training at such a time and under such circumstances that we come naturally to regard our life-mission as one of treating diseases, and not of preventing them.

"The accomplishment of the organized fight against tuberculosis, the marvelous results obtained when a minimum of effort was expended toward the reduction of infant mortality, the reduction of blindness through organized effort,—these are only a few of the many achievements that taught society that disease prevention was not alone the business of the doctor, but was the business of society in general.

"It is not unusual to find that public demand for preventive measures is far in advance of professional acquiescence to their application.

(*Continued on page* 1287, *adv. xix*)

(*Continued from page* 1286, *adv. xviii*)

Let me illustrate what I mean by a concrete example."

The author goes on to describe a campaign in a small Ohio city in which the children were examined and their defects were corrected, and on May Day a big parade was held in which 3,600 blue ribbon children (those free from defects) paraded. He then says:

"This year at a dinner given on the occasion of the community celebration of a bigger and greater demonstration, the Mayor in a public address to assembled health officials made this statement.

"This thing has been popular, immensely popular, with everybody and with every class of citizen but one, and I am sorry to say that class is the medical profession. They look on it with doubt, and are consistently objecting.

"I see wherein they are wrong, and while I want their support, still if I cannot get it, I intend to give local public health administration our full official support because I believe it to be the most important factor working for a healthy community today and a better community in the future."

Dr. Monger described the need that public health should have the support of the medical profession and said: "We decided that the best way to sell public health to the doctor was to do the fair, just and equitable thing by him, and not do very much talking about it." The result was the loss of some support of voluntary agencies without a compensating gain from the support of physicians. However, the author is optimistic as to the response of physicians that they engage in public health work. There is a demand by the people that physicians protect them from diseases, and the author argues:

"When people realize that diphtheria, scarlet fever, typhoid and smallpox are largely preventable, and they are not being prevented, they will ask somebody 'How come?' And that 'somebody' will be we doctors. We have arrogated this thing to ourselves, and we will be held responsible.

"Let them know—and they are rapidly finding out—that the tragic deaths from heart disease, the tremendous toll of nephritis, is due largely to conditions that could have been prevented by the simple protective measures that could have been taken care of in childhood, and 'somebody' must answer many pointed questions."

Dr. Monger illustrated his point by describing a young doctor who took over the practice of an older doctor, and after seven years he said:

"I am going to leave here. There are not the opportunities here that there were in the old days. When you were in practice here you counted on about so many cases of typhoid each

(*Continued on page* 1288, *adv. xx*)

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(*Continued from page* 1287, *adv. xix*)

fall; you were busy with diphtheria, tonsilitis and rheumatism in the winter and spring, and in the summer dysentery and enteritis kept you employed. I haven't seen a case of typhoid in eight years. Diphtheria only means two or three visits. I have taken out nearly all the kids' tonsils and they don't have tonsilitis. I have cleaned up focal infections and bad teeth, and seldom see a case of rheumatism. Dysentery is unknown, and only an occasional attack of diarrhea and enteritis. In fact, over 70 per cent. of the work you did is now non-existent."

The author then described the rest of the interview:

"'Do you do any immunizing against typhoid?' His answer was 'No.' 'Are you Schick testing and immunizing against diphtheria?' 'No.' 'Are you doing pre-natal supervision of prospective mothers?' Again, 'No.' 'Are you doing real, honest-to-goodness pediatric work and supervising your well babies?' Again, 'No.' 'Are you doing any examination of well people and furnishing them with supervisory service?' Again, 'No.' 'Are your school children being sent to you for correction?' 'No.'

"All through the category of public health and preventive medicine he was not realizing a dollar. Finally he became impatient, and rather testily pointed out that while he realized that all this should be done, that he could not educate the people to have it done and be willing to pay for it. And right there I nailed him! This county had indifferent public health service, with an aged physician as health officer, and one nurse for 800 square miles, and 35,000 people.

"I pointed out to him that a good, well-functioning health department would teach prospective mothers the value of pre-natal supervision and supervision of early infancy; the importance of physical examination of well people; the value of correction of defects; the importance of immunization against typhoid, smallpox and diphtheria.

"I convinced him that there are today more potentialities for service in that community than there were fifteen years ago, and that people are better able and more willing to pay for such a service.

"Well, how can this be brought about?" "Easily," was my answer. "Get yourself and some other physicians with vision appointed on your board of health, and see that progressive laymen are also appointed."

Of course the story ends well, with the young doctor as Chairman of an efficient County Board of Health.

Dr. Monger sums up his creed in the following sentences:

"As a health officer I know that I cannot render my best service without the co-operation, help, and support of the doctor."

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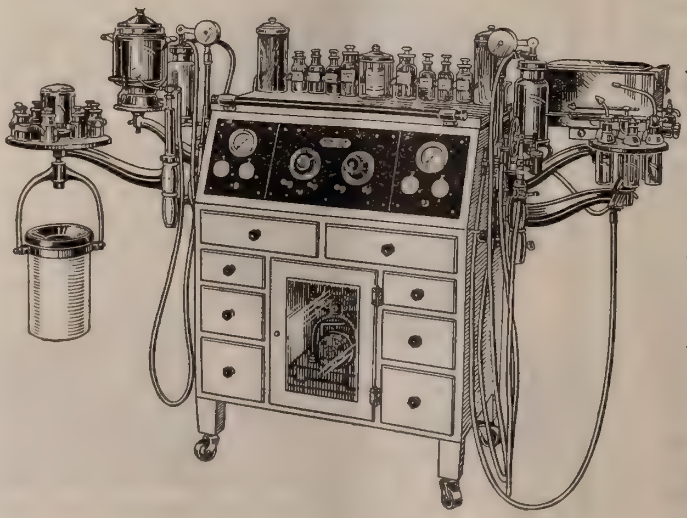

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VACATION IMPRESSIONS

The editor of the *Rhode Island Medical Journal* gives editorial expression to his thoughts regarding vacations in the October issue. The advice is good, and the editor evidently took some of his own medicine which must have worked well or else he would not be recommending it to others.—*Editor's note.*

"Presumably all wise physicians have taken a summer vacation. Some of us have in the past gone on the assumption that if we enjoyed our work we could work all the time and needed no vacation, but those of us in Rhode Island have seen some tragic examples of the fallacy of this idea, and know that a respite from our work and from contact with sick folks brings us back to our task better able to do good work. In addition to this general release from the pressure of work, we should on our vacation meet new friends, see new places and have some time for calm contemplation of a philosophy of life.

"As one visits various parts of New England or neighboring states and countries, one finds the road filled with automobiles dashing here and there; some of these automobiles, to be sure, are going to camps and beaches where their occupants will settle down for real relaxation, but the general impression gained is that this age of hurry is leading people to dash madly about, boast of the miles covered and all the different places visited. On a trip to Maine, the writer left a town in northern Maine at the same time a buckboard drawn by two horses left; the automobile and the buckboard had the same destination; it took the automobile two and one-half hours to make the trip—it took the horses two and one-half days to make the trip. One could not help but wonder whether the modern age, with its rapid transportation, with its running on schedule and its general wear and tear, did not involve certain dangers to our nervous systems, as well as our digestive systems, that made the older method of traveling have many compensations. As one got away from the beaten tracks into the heart of the woods and looked out upon mountains and lakes in their calm majesty, a certain restoration of viewpoint was gained, and the peace and quiet of nature seemed to allay the hurry and worry of our modern life. Would not the physician do well to teach his patients the value of simple things, the dangers of speed, and the wisdom of a close contact with nature? If we are to continue to add years to the span of life, to gain a better sense of values and to maintain the best degree of health, isn't it time for us to align ourselves with the forces that teach a more sane living and an appreciation of the lessons provided all about us in the repose of mountains, lakes and rivers? Then, perhaps, we can do away with some of our sleeping potions, some of our digestive mixtures, and realize that we are surrounded with the healing forces of nature if we will only avail ourselves of them."

With what the Rhode Island editor says about vacations physicians will heartily agree. However, what doctors need is not so much one long vacation once a year, but a number of brief periods of relaxation every week, such as those spent in meetings of medical societies. One of the best of all vacations for a busy doctor is an evening with his fellows—a social supper, a cigar, and a scientific paper a half hour in length. A doctor will come from such a meeting at peace with himself and with his medical brethren.

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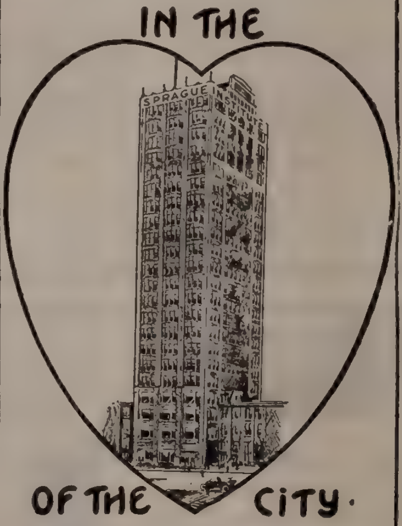

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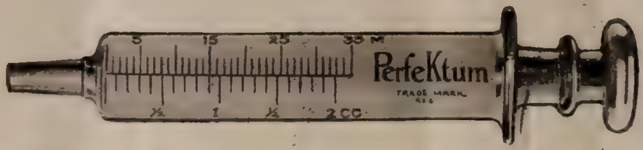

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THE LEPRA HOSPITAL IN BERGEN, NORWAY

Leprosy is still a fairly common disease in some parts of the world. The *Kentucky Medical Journal* for September, contains the following account of a lepra hospital in Bergen, Norway, by Dr. A. O. Pfingst, of Louisville, who visited the hospital:

"The hospital in Bergen is quite a good-sized, two-story frame structure, built in a square surrounding a beautiful court of flower beds, evergreens and lawn. It is well equipped with pathological and bacteriological laboratories, operating and dressing rooms, a large library, private apartments for the medical staff and for the nurses, bath equipment, etc. The rooms are large and airy, some facing the court and others overlooking a surrounding park. Two or three patients occupy a room. Everything about the place is immaculately clean.

"One could not but be impressed with the present status of leprosy and its management. When we see present conditions where leprosy patients are kept under cheerful surroundings and are attended by a trained staff of physicians and nurses and compare this to conditions as they formerly existed the value of segregation becomes apparent.

"There are over 100 patients in the Bergen hospital, the cutaneous and nervous types being about equally divided. With the one exception of a maniacal patient, who was kept in a padded cell, the patients seemed uniformly cheerful, notwithstanding their knowledge of the hopeless nature of the disease they harbor. The patients were allowed to intermingle in the court, at church service and during meals, but were naturally not allowed to leave the confines of the institution. Upon inquiry the director advised me that the danger of propagation of the disease is very slight as long as the proper rules of asepsis and hygiene are observed. He expressed the belief that closeness of contact bears a direct relationship with contagion and hence patients are not allowed to sleep two in a bed, to shake hands, or otherwise come in contact with each other. In his experience of 33 years, the doctor recalled but a single case, a nurse, who had contracted the disease while at the institution.

"In Bergen the patients are visited by the medical staff twice a day. They are treated expectantly—necrosed bone removed, heavy layers of horny skin cut off and other symptoms relieved as they arise. No internal treatment is employed unless otherwise indicated. Chaulmoogra oil, of which so much was expected, is no longer used at Bergen as no results have been obtained from its use.

"I was struck at once by the large proportion of eye affections among the patients in the Bergen institution. It seems that this frequency of eye affections is common to all lepers, two-thirds to three-fourths of all cases having some form of eye complication and from fifteen to thirty per cent. terminating in blindness. I was also impressed by the frequency of facial paralysis. It appeared as though every second or third patient had a unilateral facial immobility. Naturally, these patients were especially prone to eye complications."

"The cornea was frequently involved, showing a peculiar infiltration resembling parenchymatous keratitis. Students of leprosy refer to these cases as "Leprous Keratitis." They run an acute course with conjunctival redness and involvement of the uveal tract and leave a dense cloud in the cornea that at first appearance impresses one as a leucoma, the result of a healed ulcer. Several corneae were marked by punctuate opacities rather than the diffuse clouds. Cornel ulcer is not so common, although it occurs especially in the patients with facial paralysis and at times leads to perforation and destruction of the eye."

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CHEMOTHERAPY IN DISEASES OF THE SKIN*

By PAUL E. BECHET, M.D., NEW YORK, N. Y.

THE field covered by the title is so vast, and the time so limited that it might be well, in this paper, to consider only that definition of chemotherapy which embraces the introduction into the blood stream of one or more chemical substances of a definite nature. Probably the earliest references to the use of chemicals and metals in medicine are derived from the works of that half charlatan, half scientist, Paracelsus. Cumston[1] records that Paracelsus collected all the discoveries scattered through the works of Geber, Lulle, Rhases, and Valentine, and by applying them to the treatment of diseases was literally the founder of chemotherapy. Among his favorite metals, we find gold for paralysis, fevers, and uterine pains; silver, for pain of cerebral, hepatic, or splenic origin; tin, for worms; copper, for ulcerations of the mouth; and mercury and lead for syphilis. He was, therefore, the first to establish the infallibility of mercury in syphilis.

From the astrologer and alchemist to the modern scientist, Ehrlich, little if any progress has been made. It remained for the latter, therefore, in his famous "Die Experimentelle Chemo-Therapie der Spirrillosen," in collaboration with Hata, to announce to the world the discovery of salvarsan. Since that time, medical literature has been bewilderingly filled with articles on the intravenous injection of dozens of synthetic and other chemicals, in various dermatoses. So great is the list that it might well remain within the bounds of reason that some important agent may be omitted from consideration in this paper.

The disease most affected by the intravenous use of chemical agents, and of course the most important, is syphilis. I shall, of course, make no mention of that remarkable triumvirate of specifics—arsphenamin, neo-arsphenamin, and silver arsphenamin. Their actions and results are too well known to an audience of this character. I will only state in passing that I never note their remarkable therapeutic action in syphilis without a feeling of gratitude to the men whose brains and hands have made them possible. There have been, however, in the past few years, a considerable number of newer arsenicals which have been tried with more or less success. In this group belongs sulpharsphenamin. It is prepared by treating arsphenamin with formadehyde and sodium bisulphite. Raiziss, Severac, and Moetsch[2] found that it was about one-half as effective as neo-arsphenamin in trypanocidal tests, and that it was also inferior to salvarsan. It has, however, certain advantages: it is much less oxidizable than neo-arsphenamin, and it is much less painful by intra-muscular injection. Stokes and Behn[3] considered it as efficient in therapeutic effect as arsphenamin and neo-arsphenamin. This drug has been used mostly by intra-muscular injection in patients unable to receive arsphenamin or neo-arsphenamin intravenously because of lack of veins; Lautman,[4] however, has administered more than four hundred doses of sulpharsphenamin intravenously to eighty-three patients. His technique was simplicity itself; he dissolved the drug in 30 cc. of distilled water. It was readily soluble and caused but slight irritation if the solution leaked into the subcutaneous tissue. In no case was thrombosis noted. The first dose was 0.4 gm.; the subsequent doses were 0.6 gm., and the injections were given every fourth day. His results were fully as good as with the older arsenicals. In his series of cases there were twenty-four with neuro-syphilis. In this group his experience coincided with that of others in concluding that in neural syphilis sulpharsphenamin seems superior to arsphenamin and neo-arsphenamin. None of the patients developed any skin disturbance, and only three had slight gastro-intestinal disturbances, which quickly subsided within a few hours.

Stovarsol, a pentavalent arsenical compound, the chemical name of which is 3-acetylamino-4-hydroxy-phenylarsonic acid, introduced by Fourneau, Levaditi, and Novarro-Martin[5], and studied by Raiziss and Gavron,[6] has not as yet proven sufficiently valuable to even compare with the arsphenamins, even though it is much in use in Germany and Vienna.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, N. Y., May 11, 1927.

Another arsenical pentavalent compound, tryparsamide, the sodium salt of N-phenylglycineamide-4-arsonic acid, discovered by Jacobs and Heidelberger,[7] has been found to be of some value in neuro-syphilis by Raiziss, Severac, and Moetsch.[8] Lorenz, Loewenhart, Blackwenn, and Hodges,[9] state that marked improvement has been noted both serologically and clinically in all stages of paresis. Some patients become mentally normal after the intravenous injection of three to five grams. According to Raiziss, it must be used cautiously, as it has a deleterious effect on the optic nerve. He states, however, that this defect might be overcome by careful regulation of the dosage. Stokes and Wilhelm[10] found that tryparsamide was not suited to the treatment of early syphilis, and was in no sense a substitute for the arsphenamins; yet in neuro-syphilis of the resistant type it was superior, both serologically and clinically. Eye complications constituted a definite risk.

In 1919, Linser[11] advocated the combined use of mercury and salvarsan, using a mixture of 0.45 to 0.6 grams of neo-arsphenamin and 0.02 to 0.04 grams of sublimate. Ten to twelve injections were made at intervals of three to four days. Results were uniformly good. This work was followed by Bruck, Holzhauser, Kolle, Schmidt, Brann, and Blumener, who used various combinations of mercury and salvarsan, also with good results. Schamberg[12] sounds a word of warning; he found that vigorous mercurial treatment was often responsible for arsenical intoxication, and states that they should not be used jointly. The courses of mercury are best given subsequently to the arsenic, and in this opinion the majority of American syphilologists concur.

On the basis of the work of Ravaut of France, in 1920, and McBride and Dennie in this country, in 1923, it is now known that arsenic, mercury, and other heavy metals can be transformed into soluble compounds by the intravenous injection of sodium thiosulphate in increasing doses. It is therefore of great help in arsphenamin dermatitis and mercurial stomatitis and diarrhoea. Several syphilologists are now using sodium thiosulphate in conjunction with the arsphenamins as a preventive of arsenical intoxication in susceptible individuals.

Bismuth compounds, as antisyphilitic remedies, have made their appearance in the past six years. Sazerac and Levaditi[13] first used bismuth in rabbit syphilis with remarkable results. They immediately began the treatment of human syphilis, with exactly similar good results. Fournier and Guénot, Müller, Chevallier, Nicolas, Massia and Gaté, Jeanselme, Millan, Pomaret, Louste, Tibaut, and Barbier, are among the most enthusiastic European observers. Bismuth seems particularly effective in arsenic-resistant and latent syphilis. McCafferty[14] found it as effective as arsphenamin. Raiziss believes it to be more effective than mercury. Hopkins[15] believes that it should be included in the routine treatment of syphilis. Schwartz and Levin[16] state that it has more spirochetal value than mercury. Sutton[17] states that its intravenous injection is to be strictly avoided, yet Lacapere and Galliot[18] used a colloidal bismuth suspension in a series of from twenty to twenty-five intravenous injections at the rate of three a week, in thirty cases with excellent results, the drug being well borne. Stomatitis seemed much less frequent than after the intramuscular method. A German colloidal bismuth preparation, called bismuth diasporal, has been used intravenously by Curt Schmidt, Portmann, Lenzmann, and Hubner, with apparently no deleterious effect.

Of the newer preparations of mercury, Flumerin, prepared in this country by White, Hill, Moore, and Young[19] is recommended for intravenous injection. It is the disodium salt of hydroxymercuri-fluorescin. White and his collaborators thought it of sufficient value in syphilis to warrant further use. Moore and Wassermann[20] found it markedly inferior to arsphenamin. Fox, Gildersleeve, and Preston[21] gave 185 injections to a series of twenty-four patients over a period of eighteen months. They found that it had a fairly accurate spirochetal value and that it caused rapid regression of secondary lesions.

Mercurosal, a derivative of salicyl-oxy-acetic acid and mercury acetate, the chemical name of which is disodium mercuri salicyl-oxy-acetate, was used by Cole, Driver, and Hutton[22] in thirty-eight patients with syphilis. Many showed marked improvement, but a summary of the results with this drug did not show any superiority over the better known mercurials. On the other hand, Williams[23] considered it of equal value with other mercurials.

Mercodel, a colloidal preparation of metallic mercury in which the particles of mercury are very minute and held in suspension, seems to have the most promising future of the newer forms of mercury. Tripp, in a personal communication to the author, stated that he had used mercodel in approximately 70 cases of syphilis, in all its stages, with uniformly good results; it seemed particularly effective in arsphenamin-resistant cases. He had noticed no ill effects whatever. Gauvain and Persky[24] have used mercodel in 27 cases, and report that the lesions disappear as rapidly with this drug as with any other now in use. Thrombosis did not occur. They believe this mercurial to be potent, safe, and worthy of further trial.

The most important recent achievement in the treatment of dermatoses by means of chemotherapy is the use of gold in lupus erythematosus. A gold compound, 4-amino-2-auro-thiophenol-carbonic acid, under the name of "Krysolgan," has been used extensively in Germany, Ruete[25] reporting complete healing of an acute lupus erythematosus after seven injections of the compound. Martenstein[26] used Krysolgan in the treatment of forty-two patients, with cure in twenty-eight, and improvement in six. Favorable results with Krysolgan were also reported by Fried[27] and Ullmann.[28] Schamberg and Wright[29] used gold and sodium thiosulphate in twenty-four patients suffering from lupus erythematosus, with the following results: disappearance of lesions in five cases; practically well, six cases; improvement in twelve cases (a number still under treatment). Only one patient showed no improvement. The gold and sodium thiosulphate they use has the formula $Na_3Au\ (S_2O_3)\ 2H_2O$. It is quite stable in the dry state, readily soluble in water, and contains 37 per cent of gold. I have used this preparation in thirty cases of lupus erythematosus discoides, one case of lupus erythematosus disseminatus, one case of lupus vulgaris, one lupus pernio, one lupus miliaris disseminatus faciei, two papulo-necrotic tuberculids, and three erythema induratum. Of the thirty cases of lupus erythematosus discoides, four showed complete disappearance of the eruption; four were practically well, eleven were greatly improved, ten were slightly improved, and only one showed no improvement. The last had considerable local reaction, with a generalized vesicular eruption after the seventh injection, and did not return for further observation. The lupus pernio showed no change after five injections. The lupus vulgaris also showed no improvement after eight injections. The disseminate miliary lupus vulgaris was extremely extensive. There was rapid improvement after three or four injections, and apparent complete cure after fourteen injections. One of the cases of erythema induratum also had a papulo-necrotic tuberculid of the hands. She received twenty injections in four months. The eruption was entirely cured. Another case of erythema induratum had received sixteen tuberculin injections without benefit, yet after twelve injections of gold and sodium thiosulphate she was nearly well. The third case of erythema induratum showed marked improvement after four injections. Another gold preparation, Triphal, has been used extensively with exceedingly good results.

Within the past eight months, numbers of cases have been exhibited in New York by Wise, MacKee, Rosen, Clark, Fraser, Throne, and others, with evidences of marked improvement, and even apparent cure from the use of gold.

A simple but important remedy in the treatment of bromoderma, namely, the intravenous injection of 100 to 500 cc. of decinormal saline solution, was first called to our attention by Wile.[30] He used the method in three cases, with rapid disappearance of the lesions. The author[31] also had equally good results in three cases, one of which had resisted other treatment for months. MacKee, at a recent meeting of the New York Dermatological Society, showed a case of bromoderma in an epileptic, where the oral administration of salt kept the lesions in check, thereby enabling the patient to continue his bromide therapy.

Young, Hill, and Denny[32] used intravenously mercurochrome-220 soluble in twenty-four cases of erysipelas. The results obtained were remarkable, although several had been almost moribund. Furunculosis also responded; of eleven cases treated, ten were cured and one improved.

Maloney[33] used sodium salicylate intravenously in twenty cases of psoriasis, with no lasting improvement in any case, the lesions recurring shortly after cessation of treatment. Smith[34] also had a high percentage of failures, 52 per cent.

Wolf[35] injected five cc. of a ten per cent solution of sodium bromide in ten cases of eczema and other itching dermatoses. The itching was often relieved by a single injection. The most striking benefit was in a case of chronic senile pruritus in a man of eighty-six.

Throne, Van Dyck, Marples, and Myers[36] have used sodium thiosulphate intravenously in eczema of arsenical origin, with great benefit.

Pijper[37] in 1918, introduced into South Africa the use of arsphenamin in the treatment of anthrax, and has used the method in forty cases without a single death. Grasser[38] used arsphenamin in fifty-four cases of anthrax with remarkably good results. In mild cases, a single injection of 0.45 to 0.6 grams was frequently found sufficient.

Antimony and potassium tartrate is now properly considered to be a specific in granuloma inguinale. Fox[39] collated 150 American cases in which the drug was used. In seventy-eight complete healing took place, and in thirty-one there were various degrees of improvement.

Tartar emetic has also been used intravenously in a 2 per cent solution in leprosy, with very favorable results. Cawstein[40] particularly noted its good effects in ulcerating leprous lesions.

Comment: Bismuth, mercodel, and sulpharsphenamin in all stages of syphilis, tryparsamide in neuro-syphilis, sodium thiosulphate in metallic intoxications, and gold and sodium thiosulphate in lupus erythematosus, are the most recent outstanding discoveries in chemotherapy, and in all probability will eventually find a permanent and important place as therapeutic agents. This seems to me particularly true of the gold therapy in lupus erythematosus.

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NON-OPERATIVE TREATMENT OF CATARACT WITH REPORT ON LENS ANTIGEN TREATMENT*

By ZENAS H. ELLIS, M.D., NEW YORK, N. Y.

WITHIN the last few years the members of the medical profession have had many new discoveries displayed before them for their approval, a few of value, others of no worth. Perhaps the one that ophthalmologists should be especially interested in is the announcement by Dr. A. E. Davis at the International Congress of Ophthalmology in 1922 and at the American Ophthalmological Society in 1924 that he had arrived at a cataract preventative or cure without resort to surgery. In his report he announces that 72 patients with 131 cataracts had been treated. Of these cases he reported 36 cases or 27½ per cent as being arrested cases, in 86 cases or 65 per cent the cataract was either cured or improved, making a grand total of 93 per cent of the cataracts which had responded favorably to his treatment. Such a "cure" if based on scientific truth is of the utmost importance, for the disease entity known as cataract is an ancient one, and has withstood the attack of ages of learned men who have sought to conquer it by every conceivable remedy other than the knife, with little or no success.

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

Such a revolutionary discovery as the finding of a mode of treatment which gives arrest in 85 per cent of the cases treated and improvement in over 50 per cent of the cases treated is worthy of further study by others of an unbiased mind. If these facts be true and we have a real definite mode of treating cataract of whatever form, it is vital that this fact should be broadcast not only to the medical profession but to the laity generally so that all may share in the benefits to be derived, for cataract is a common medical condition and if it is possible in early cases to stop the progress of cataract, the people generally should be as acquainted with the fact as they are now with the necessity of early treatment of cancer and tuberculosis and diabetes. If in addition to being able to prevent the formation of cataract in the early cases we can promise half of our cases cures after the cataract has formed and that the opacities will clear up, we truly have a remedy of inestimable value.

The ophthalmologist asks, are these facts true? He turns to the American Medical Association and enquires of the Council on Pharmacy and Chemistry whether the lens antigen treatment of cataract has been passed upon by their board and he finds that while this preparation has been presented to them they have not passed upon it for the ophthalmologists consulted all agree that the evidence of its usefulness was not acceptable. They await more evidence. It should be for ophthalmologists themselves to inform the council as to its efficacy and advocate its approval or disapproval by that impartial board.

At Bellevue Hospital and in connection with the Eye Department of New York University and Bellevue Medical School there has been going on for several years a study of this most timely subject, the medical treatment of cataract. It was considered momentous to first of all look about and see whether any of the remedies that so far had been advanced offered a real cure and if not, to dismiss them from discussion. Not an easy task but an essential one.

As in the case of many other diseases, the treatment of which is poorly understood, the treatment of cataract has embraced nearly every conceivable remedy. Generally speaking, all have yielded most unsatisfactory results with the exception of the brilliant results in a very high percentage of cases following the various surgical procedures of extraction of the crystalline lens. The very fact that so many various modes of treatment have been advanced for the relief of this condition predisposes to the view that no worth while results were obtained with any. The treatment of incipient cataract then has resolved itself into the use of various medications in the conjunctival sac or injections beneath the conjunctiva in connection with internal medication which might aid in the process of staying the opacification or possibly actually aiding in its absorption. As many cataracts seem to be self-limiting and never go on to maturity and as some even seem to disappear automatically (although these cases are rare and their certainty is doubted by many authorities) the actual results obtained by the medication given is at best uncertain.

It is with this fact in mind that we approached the problem of arriving if possible at some definite treatment for the cure of cataract without resorting to surgery, or if this were impossible, frankly to admit that the condition was surgical and relegate drug therapy to its rightful position.

In studying the literature of what had previously been accomplished in this field of research we were struck by the account of the results found by Guyer and Smith. They began their work on the action of cytolysins and it was really only by chance that their work has had such bearing on the study of cataract. A brief outline of the work of these two men and their findings directly bearing on the work at hand might not be amiss. They found that lens tissue of rabbits and mice when injected into fowls excites the production of anti-bodies. The serum of the fowl when reinjected into rabbits and mice may attack in utero the lenses of the young of the species used as antigen. The reaction is not invariable; a majority or even all of the litter may not be acted upon, or a given individual may be affected only in one eye. The reason may be that the placenta is impervious to such anti-bodies except when there is an occasional rupture of a placenta blood vessel which might permit of direct mingling of foetal and maternal blood.

Various defects were noted among the offspring of animals injected with the serum. The liquefactions would indicate a true cytolytic effect; of the several lens proteins the fibrous one is the one upon which the sensitized serum seems to have operated. Whether the other ingredients were also affected was not determined.

The clouding which occurred in other lenses might either be the result of a cytolysin or precipitin. The important point is that opacities which may be permanent can be produced by specific sera. In the most striking case the affected lens was so diminished in size that the whole eye was microphthalmic.

It will be noted that Guyer and Smith found that the anti-bodies injected into animals had no effect on the lens or any other of the orbital contents of the mother, but only of the offspring, also the lenses of males were unaffected. I believe this is a point of great significance in the study of the effect of lens antigen.

It will also be noted that Guyer and Smith believe that the absorbing effect was possible because of the presence of blood vessels in the embryonic lens, whereas in the senile cataract case poor nutrition of the lens associated with poor lympathic circulation is partly responsible for cataractous changes. If this is true how can we hope for liquefaction of a senile cataract by the same process as resulted in the liquefaction of the embryonic lens? It will also be noted that they report in several cases that the lens became cloudy and opaque (the result of cytolysin and precipitation). This is of course the reverse of what we are striving for, but it may be a very important point.

Two years later Guyer and Smith had carried their work along so that they report in the *Journal of Experimental Zoology* that the defects found in the eyes of their rabbits were carried to the sixth generation by breeding, and they feel that the evidence established a cleancut case of inheritance of specific modification produced by extrinsic factors.

They are not sure that the result should be reckoned as an example of the inheritance of a somatic modification; that is a change produced in the lens of the intrinsic young which in turn has induced a change in the lens producing constituents in the germ cells of these young, or a simultaneous change in the eye and in the germ cells of the young.

A noteworthy fact was that once the defects were established without subsequent treatment they became more and more pronounced in successive generations. Lens antigen would seem then to have a cumulative action. The presence of isolysins can be proved by the precipitation test. These once established in the embryonic circulation should be as effective in modifying germinal factors as corresponding anti-bodies introduced into the embryo through the placenta of the mother.

I have gone over this work in some detail as it is the basis of Dr. A. E. Davis' treatment of cataract with serum. That is he believes that a solution of emulsified lens of an animal injected into the human will cause the active formation of anti-bodies which will seek out the lens and invade it and cause the absorption of its opacities. He lays no claim I believe that it will actually absorb normal lens substance. Why these anti-bodies engendered by injected normal lens substance should act on abnormal lens protein has never to my knowledge been explained. If the work of Guyer and Smith is correct, then we should rather expect no effect on the lens of the patient but rather if it were a female that her children would be born into this world with varying types of eye defects, and lenses in different stages of opacification and absorption. Let us hope that Guyer and Smith are wrong or that the patients of my lens protein clinic are all beyond the child-bearing period.

The patients were selected from the clinics of Dr. John M. Wheeler at Bellevue Medical School and Bellevue Hospital, and the New York Eye and Ear Infirmary. We endeavored to select cases of all types of cataract and not limit ourselves to one particular form, and attempted to determine whether or not any particular group of cases yielded to treatment better than others. It is my understanding that Dr. Davis now advises the use of lens antigen only in incipient senile cataract where the vision is 20/70 or better.

Now it appears to anyone that has had any experience with cataract formation (and all authorities are agreed on this point, at least) that cataracts may appear and then grow slowly or rapidly or may become stationary, all depending upon conditions of which we have but little knowledge but probably due to varying metabolic changes. Now it is very easy to delude one's self in endeavoring to effect a cure of any disease, and medical history is filled with these delusions; even the great Koch and Pasteur were not immune from the flights of their own imaginations and assumed that they had conquered disease, and found the cure, only to have their fond dreams end in ignominious defeat. Sincere they were, but their failure to keep their feet on the solid rock of scientific fact brought them heartaches, and in the case of Koch, nearly ruined the good work previously done and on which his fame today rests. So it is in the search for a cure for cataract. The eye is so sensitive to any change of vision, that one should be ever alert as to apparent effects of treatment, and not be mislead by the patient's optimism or desire for relief.

Certain it is that given a person with cataract of any origin, and a realization that vision is diminishing and the knowledge that it may go on to blindness, we will find that person most susceptible to treatment if the treatment is given with little pain and through that magic instrument, the hypodermic syringe.

Before starting the treatment of these cases I conferred with Dr. Davis, and followed directions given by him. The patients were instructed to be abstemious regarding the use of alcohol and tobacco. They were told to drink three extra glasses of water daily, and to eat meat only once a day and then in moderation. They were given 10 cc of potassium iodide three times a day by mouth. On the first day one minim of lens antigen was injected intracutaneously, and on the following day the site of the injection was examined to determine the amount of severity of the reaction. They were then injected subcutaneously with ½ cc of lens antigen. The following day they were given 1 cc. The injection was increased 1 cc per day until 10 cc were reached. Some of the cases were run up as high as 15 or 18 cc per injection. The injections were given daily except on Sundays.

As some of the cases treated by lens antigen showed a stationary condition or very slow progress of the cataract, which might or might not be claimed to be due to the treatment which the cases received, it seemed wise to study a group of cases which have had no treatment whatever, either internal medication, drops or injections which also show a stationary action on the part of the cataract. In some of these cases there appeared to be a slight improvement in vision. This I believe is not due to the absorption of lens opacities but more apt to be due to either a better refraction at a later date, or else due to the fact that as the patient became more accustomed to the doctor there was better co-operation between the patient and the examiner. I am sure anyone doing a great deal of refraction on cases with lens opacities appreciates the fact that the mental attitude of the patient has a great deal to do with the vision which the patient has. It will also be noted that in some cases the opacities in one eye developed more rapidly than those in the other, although in all of the cases selected the growth of the cataract was slow. I present these cases to confirm a well established ophthalmological fact that some cataracts do become stationary and do not go on to maturity over a long period. This fact has been so well established I am sure in the minds of ophthalmologists that I hesitate to present these cases.

• I present fourteen control cases all of which show in one or both eyes lens opacities which were stationary under observation for several years.

The patients that were treated were told that we were experimenting with a substance which we have every reason to believe would cure them of their cataracts and that it would not be necessary to operate. They were told, however, that in case the treatment failed to give them the desired relief, they would still have operative procedure to fall back upon. I believe we succeeded in convincing most of the cases that we really believed that the treatment would cure them. We did this in order to obtain the best possible co-operation on the part of the patient and also to have the advantage of any psychological effect. Most of the patients co-operated extremely well. Only one case in the series developed anaphylactic shock from the injections. I believe that this was a true anaphylactic shock, as it came on at the end of the thirtieth treatment. The patient was unconscious for five or six minutes but later responded to an injection of adrenalin. About one-fourth of the cases developed a mild dermatitis at the seat of the injection and complained a great deal about the itching accompanying the dermatitis. The area at the seat of the injection in these cases was raised and had an elevated temperature. These skin reactions were of various sizes and shapes and varied greatly in severity. No inflammatory reaction of the eyes was noted in any of the patients treated.

SUMMARY

Types of cataracts treated.		
	Traumatic	2
	Cortical	15
	Sclerosed Nucleus	5
	Diabetic	4
	Complicating Glaucoma	1
	Total	27

Cases which showed progress of the cataract—14.

Cases which showed no change in the progress of the cataract—13.

Cases which showed absorption of the cataract by slit lamp examination or improvement in vision—None.

Practically all of the cases noted a general tonic effect from the lens protein.

DISCUSSION OF DR. ELLIS'S PAPER

By A. EDWARD DAVIS, M.D., NEW YORK, N. Y.

Dr. Ellis was kind enough to give me the main points in his part of the paper on the non-operative treatment of cataract.

(1) In no case had lens opacities been absorbed.

(2) In about one-half of the cases the

progress of the cataract had been arrested.

(3) The patients were out-patients at Bellevue.

(4) Fourteen patients with non-progressive cataracts (seen in Dr. Wheeler's private office) were used as control.

As regards the first point, the non-absorption of lens opacities, I may say while the spiculae do not often disappear, though I have seen a few such cases (and Connor of Detroit has reported such cases) the general cloudiness of the lens often clears and in this way the vision is often improved. Opaque lens fibres are also absorbed by lens antigen. I think with further observations Dr. Ellis will find such cases.

Second point—the arrest of the progress of the cataract in about fifty per cent of the cases treated is an excellent showing for the antigen, considering that the patients were outdoor where little control can be had over them.

This per cent of arrest is much greater than that reported by Jackson (*Senile cataract under hygienic care*) where he gives 17.39 per cent as remaining stationary. The difference is certainly worth striving for.

In my own experience, by the use of lens antigen, the percentage of arrested and improved cataracts (private patients) is much higher.

Dr. Knighton, my associate, has just looked over a record of 176 eyes, in which 37.5 per cent were improved and 32.3 per cent were arrested, the two combined equalling about 70 per cent.

Third point—out-patient clinic patients are not nearly so favorable for treatment as private patients and for two or three reasons; (a) they usually come later in the progress of disease, (b) they are in poor physical condition, (c) they often cannot or do not have regular and full treatments.

Fourth point—taking non-progressive private patients without treatment as a standard with which to compare progressive cataracts in clinical patients who received lens antigen treatment, is not a fair comparison of results in any sense of the word. Cases of a like nature, either progressive or non-progressive, under as nearly similar surroundings as possible, one group to receive hygienic care the other to have the lens antigen injections, should be selected for comparison, if we wish to arrive at a decision between the superiority of the methods.

Dr. Edward Jackson has reported 108 private cataract patients (207 eyes) under observation for more than two years, and a most valuable contribution it is, giving us a standard to measure the success or failure of other methods of treatment.

Taking his results as a standard I am giving the results in 176 eyes in my own private practice, and make a comparison of results.

Dr. Jackson's cases have been under observation for longer periods than my own.

Dr. Jackson's	*Improved*	*Stationary*	*Worse*
Uncomplicated	15	36	133
(184 eyes)	8.15%	19.57%	72.28%
All cases			
(207 eyes)	16	36	155
2-21 yrs.	7.73%	17.39%	74.88%

Dr. Davis'	*Improved*	*Stationary*	*Worse*
Uncomplicated			
(113 eyes)			
	36	33	44
1-4½ years	31.8%	29.2%	39.0%
Three months	59	52	51
and more (162)	36.4%	32.1%	31.5%
All cases	66	57	53
(176 eyes)	37.5%	32.3%	30.2%

In looking over Jackson's table I note the vision when first observed and when last observed and find that 155 eyes had reduced vision. This, although, Dr. Jackson, in the body of his paper says only 100 eyes had diminished vision which would be 48.3 per cent instead of 155 eyes which would be 74.88 per cent.

In either instance it will be noticed that in all cases, uncomplicated and complicated—that the advantage is decidedly in favor of the cases treated by the antigen.

In the untreated cases *improvement* occurred in 7.73 per cent; in the treated cases 37:5 per cent, or about five to one.

Vision worse, in untreated 74.88 per cent; or if only 100 eyes were worse (as stated in body of paper 48.3 per cent) while in the treated cases it was only 30.2 per cent. These parallel columns speak for themselves. So according to the statement of Dr. Wells of Boston — "Unless one can show that his results with a certain drug, internal or external, or the indicated remedy or mechanical appliance are better than the untreated case, he has not proved the therapeutic value of his interference."

These data would indicate that my method of treatment was of decided value.

Dr. Wells in 1915 in reporting his cataracts which he indexed from 1900 to 1915 has this to say: "Many have been watched at varying intervals from 10 to 15 years. Of course, many have been lost sight of, but as near as can be estimated not more than 1 per cent of the truly incipient cases have matured, and not more than five per cent have materially advanced. From this it appears that the prognosis of incipient senile cataract untreated is extremely good."

Now, from my experience with senile cataract, I would say that Dr. Wells's estimate of the number of cases of untreated incipient senile cataract that come to operation is entirely too optimistic. Just to think of only one per cent maturing and but five per cent losing useful vision! If 90 per cent of this 6 per cent that came to operation are successful, then one per cent of cataract cases come to blindness; a consummation devoutly to be wished for, but alas! not realized in the practice of the average ophthalmologist.

I must say my own experiences more nearly coincide with Dr. E. C. Ellett of Memphis, Tenn., who in discussing Dr. Jackson's paper (Senile cataract under hygienic care) states: "All of us can duplicate these experiences with cases that have gone on for many years. I can think of several that I have observed for over twenty years without material change, but I do not think we ought to go away with the impression that the majority will not in the future, as they have in the past, mature and have to be extracted."

I, too, have observed patients for more than twenty years, one for twenty-seven years, who still maintained a modicum of vision, and this patient of 27 years' duration, though "satisfied" himself with his vision had to be assisted about during his last years.

Dr. Edward Jackson makes a very significant remark in closing the discussion of his paper, above cited. "Now as to occupation. In a general way the former occupation of the patient has been give up. Most of these patients have fallen into the habits of old age, to a considerable extent, and their cases must be considered from that point of view." But most of us in active practice have many patients with incipient cataract that do not all fall in that class or point of view. They are active business or professional men, and must earn a living and are most anxious to maintain useful vision, and are not satisfied to get along some way, and it is this type of case that should have the lens antigen treatment.

For example, I have one excellent surgeon in New York City, whose vision was brought up to normal by the lens antigen treatment, and he is actively engaged in practice. His father before him, who had nothing but hygienic care of eyes, went to double operation for cataract; and this surgeon's sister also had only hygienic care of the eyes, went to operation, and, although successfully operated on, later lost her vision through detachment. So this family history would indicate that lens antigen was of value in this instance in stopping cataract. And this brings me to speak of high myopes with beginning cataract. The oculist who does not give such patients the benefit of non-operative treatment, does not, in my opinion, do justice to his patient. We should not only give such patients the best hygienic care, but they should also have the benefit of specific protein injections. In fact, every incipient senile cataract, except the nuclear type, should have a specific lens antigen treatment.

With further original research work on the nutrition of the crystalline lens as conducted by Wheeler and Kinby, and further improvement of lens antigen as produced by Woods, even better results, I predict, will be obtained in the treatment of cataracts, by means of lens antigen injections.

DIAGNOSIS AND TREATMENT OF GOITER*

By WALTER T. DIVER, M.D., F.A.C.S., TROY, N. Y.

To thoroughly discuss any particular phase of thyroid diseases would be obviously impossible in such a short paper. Therefore it has occurred to me that a general discussion about conditions of interest to us all would meet with more favor than a lengthy and exhaustive article dealing with the more theoretical aspects of this subject.

I do not propose either to speak to you this afternoon of the operative surgery of the thyroid gland. We all know that a competent surgeon, experienced and skillful, can be depended upon to handle the work.

But I do desire to discuss some of the clinical aspects of the more common diseases of the thyroid, namely, Simple or Endermic Goiter, and Exophthalmic, or Graves' Disease, and deal lightly, also, with their etiology, pathology, diagnosis and treatment.

If we omit for the present, Malignant Disease, Acute Inflammation and certain of the rare forms of Thyroid enlargement, there remain two varieties of Goiter.

The first is Simple or Endermic Goiter; and to begin with I wish to emphasize that Simple Endermic Goiter is not a hypertrophy of the gland. It is essentially a degeneration.

The enlargement of the gland in the earliest stages in which I have been able to observe, consists primarily in a distention of the organ with colloid, with some atrophy of the epithelial elements. In this respect it differs entirely from the Goiter of Graves' Disease (Exophthalmic Goiter) which is due to an increase in the cellular elements of the gland. The misuse of the term "hypertrophy" as applied to Simple Goiter is very widely spread in literature, at the present day. It is especially found in the writings of laboratory researchers and those of physicians who have fewer opportunities of seeing the inside of a Goiter than have surgeons who operate upon them.

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* Read before the Third District Branch Meeting, at Troy, N. Y., October 1, 1927.

If the cause that produces the increase of colloid, almost certainly an irritant of some kind, be removed, the gland quickly returns to normal. Most Goiters of adolescence undergo a spontaneious cure, as soon as the physiological demand for increased thyroid secretion for trophic purposes has ceased. This is seen frequently in practice. This type of Goiter is evidently a deficiency disease, due to a relative lack of iodine. If the cause persists, a fibrosis, due to slight chronic inflammation sets in and the condition gradually becomes a permanent one.

In Goiters of considerable size, or long duration, this interstitial fibrosis may be most marked and is frequently accompanied by calcification.

The retention of colloid leads to the presence of cysts, which may coalesce into large ones, but nearly all the larger cysts of Goiter are formed by the breaking down of ill-formed masses of Thyroid tissue, surrounded by a more or less well-marked capsule. These masses are called "Adenomata." It is a question whether the word "Adenoma" is a correct one. A more frequent name given to the condition by continental surgeons is "Struma Nodosa" or "Nodular Goiter." But adenoma is the term generally applied in America.

Marine says "The suggestion by Woeffler that these nodules arise from fetal thyroid rests, and the introduction by Bellroth of the term 'Fetal Adenoma,' has served unduly to emphasize the hypothesis of their fetal origin. While a few may arise in this way there is a general acceptance of the view that the great majority must arise from differentiated Thyroid tissue, usually beginning in the Goiter of Adolescence."

It is in this variety of Goiter which comes on in early life, even in the earliest period of fetal life, that a complete atrophy of secreting elements is found. The type that leads to cretinism, deafmutism, idiocy and dwarfism, which is so prevalent in Switzerland.

It is claimed by some authorities that with the rate Simple or Juvenile Goiter is increasing in our country a similar condition is likely to prevail here if careful measures are not taken.

Marine, continuing, says that Simple Goiter in contra-distinction to Exophthalmic Goiter is as prevalent in lower animals and can be readily induced in them.

Galli Valerio of Lusanne, says that the etiology of Endemic Goiter is not fully understood. Of the numerous theories that which regards drinking water as the cause of goiter is at once the oldest and best supported by facts and experiment.

The poison of Goiter in drinking water is either a specific substance, or a specific germ or groups of germs, especially intestinal flora, which produce toxic substances that act upon the Thyroid Gland. Apart from water supply, in-breeding is a predisposing factor in cretinism and deafmutism.

The theory that Goiter is caused by a deficiency of iodine cannot be accepted:

(a) Because even where iodine is in excess (on sea coast), goiter exists.

(b) Because deficiency of iodine causes atrophy, not hypertrophy of the Thyroid.

Iodine is merely some sort of an antidote to Goiter, as is quinine to malaria. Deficiency of quinine does not give rise to malaria, neither does deficiency of iodine give rise to Goiter.

Bircher says that the etiological factor of Goiter, and the conditions which favor its prevalence, are of a varied nature. One cannot admit a uniform etiological factor.

We will now devote a little time to another type of goiter very different from that which we have first considered, a variety which we see a great deal of in this vicinity and other localities about the United States and which is not so prevalent in Europe. This is Exophthalmic Goiter or Graves' Disease. It is characterized by an excess of cellular elements and a diminution or absence of colloid. In its various forms it seems to be a hypertrophy or hyperplasia of the gland.

We must admit that we are no closer to the etiology of this disease than we were at the beginning of our work. It is, no doubt, caused by an irritant of some kind. Whether it be an infection, some predisposing constitutional factor, a psychic stimulus from nerve strain, or shock, or accident, cannot be said. It is increasing, however, in this country and influenza seems to be a predisposing cause.

Both Exophthalmic Goiter and Colloid Goiter, it would appear, are closely related to each other, the two types occurring in high ratio in the same districts.

Now these are the two chief varieties which we have to contend with about here, and the different phases and degrees of enlargement of either, or both, separate or combined, take in the principal material which we physicians and surgeons see.

Diagnosis

Offhand, men who are not familiar with Goiter would say that it is an easy task to make a diagnosis of the various forms of pathological Thyroid. But the more experience one has attained the more one is impressed with the fact that in many cases it is a difficult procedure. Especially difficult do we find this in determining the difference between Exophthalmic Goiter before exophthalmus and advanced adenoma of the Thyroid. Then, again, when we have a combination of Exopthalmic Goiter (Goiter, Basedow) and long standing adenoma in the same patient; another when we sometimes have to deal with a combination of hyperthyroidism, due to iodine or iodine-hyperthyroidism in a degenerated or toxic adenoma and exophthalmic goiter.

Diffuse colloid goiters are often mistaken for beginning Exophthalmia, and vice versa.

You may answer and say, "Why, the metabolism test, the nervous symptoms, the heart, many ways of examination that will clear the picture." But identical symptoms may occur in any or all of these cases and it is a most difficult job and taxes one's entire resources at times.

I will not go into detail on this question because time is too short. I will, however, touch upon one of the most important conditions which we have to deal with in differential diagnosis.

Authorities all agree on the difficulties encountered sometimes in making a differential diagnosis between Pulmonary Tuberculosis in the incipient stage, and early or non-suspected thyroid enlargement. Goiter and tuberculosis in their early stages effect the system in nearly the same way, so similar are their manifestations.

We have, as Sloane writes, the incipient case of tuberculosis without demonstrable lung lesion, resembling mild Exophthalmic Goiter.

2nd. The "formes frustes," or mild type of Exophthalmic Goiter, resembling early tuberculosis.

3rd. Co-existant tuberculosis and goiter.

Tubercular patients should always be carefully watched for evidence of goiter, both for hypo and hyperthyroidism.

In many cases, it is true, where active symptoms of the disease are present, can the two diseases be readily differentiated, such as well marked physical signs in the chest in T. B. It is also true that in cases of well-marked hyperthyroidism a diagnosis can be made across the room—but this is not true in early cases.

In early tuberculosis there is lassitude, fatigue, loss of appetite, fever, loss of weight, also some nervousness, rapid pulse, night sweats and higher metabolic rate. These can be the symptoms, also, of early goiter; in addition, however, we have tremor palpitation, increased metabolism, somewhat higher in enlarged thyroid. That a careful study in each case will make it much more possible for us to arrive at an accurate differential diagnosis between incipient hyperthyroidism and incipient tuberculosis and avoid the necessity of sanitarium treatment for incipient goiter cases and, likewise, be able to save a number of cases of early tuberculosis from being treated surgically.

I have had in my experience, for many years, a number of cases of this kind. When there is a question I turn the case over immediately to an expert on the chest. When there is a doubt, rest being the treatment for both conditions over a long period of time, improvement will unquestionably follow; then, as time goes on when more distinct signs present themselves, more direct measures can be instituted.

Many times the co-existence of the two conditions is present, although this opinion is not shared by all authorities.

From personal experience I am absolutely positive that both conditions often present themselves in the same case.

Sloane reports that he has operated 400 cases in the last fifteen years. These patients were known to have tuberculosis before operation and practically all have gained in weight and satisfactory improvement.

I have had seventeen cases in my experience within the last three years. Several were rejected at the various sanitariums on account of their goiters. The majority of these cases were from northern New York, about Saranac, Tupper Lake and Lake Placid, and several from this vicinity. It was surprising what a distinct change for the better took place in all of them. They were all done under local anaesthesia, which gives no appreciable shock.

Hypo-thyroidism=lack of proper amount of thyroid secretion.

Treatment

The treatment of hypothyroidism is quite satisfactory, as far as the control of the condition is concerned, but not very satisfactory as to cure; the physician must, however, have fair knowledge of what he can hope to accomplish. Underlying it all he must have a sure grasp of all physiological and pathological factors involved and also the physiological action of the drug or drugs which he proposes to use. He must also have an understanding of the certain essentials in administering the drug to obtain the best results. The failure of treatment in the past has been because of a lack of knowledge of these essentials.

The internal secretion of the Thyroid Gland, thyroxin, controls the energy-producing mechanism of the body. Decreased energy is lowered basal metabolism. This is the most outstanding, single symptom in any type of hypothyroidism. This is true in cretinism and frank myxedema or post-operative myxedema.

Other symptoms are direct results of this lowered metabolism.

Lowered metabolism, being constant and measurable, gives us our most valuable data in directing treatment.

Basal metabolism varies from time to time in individual patients and this fact should be considered in a treatment that is satisfactory.

Basal metabolism of the patient under observation should be taken once every day for at least three or four days, because these repeated metabolism tests enter into the accuracy of the individual metabolic rate. The true rate will not, nor should not, vary three to five points.

The specific treatment is the supplying daily amounts of thyroxin or desiccated thyroid gland to make up for the deficiency in the individual patient.

Damage already done will probably not be made up, if treatment is started late. As for instance, nephritis or damage to other organs, but it can safely be said that the energy regulating mechanism can be made physiologically normal.

One must know the physiological action of thyroxin the active principal of the thyroid gland, and the amount of these ingredients in the different preparations on the market. The relation between the exact metabolic reading and the computed daily dose based on that reading.

The average normal human body contains approximately 14 Mg. of thyroxin, the daily output 0.75 Mg. If a patient has no thyroid secretion he must be supplied with 0.75 mg. of thyroxin or its equivalent in desiccative thyroid glands.

Absorption by mouth is slow, compared to intravenous treatment. The basal metabolic rate can be raised in from 24 to 48 hours if a proper dose of thyroxin is given intravenously; by mouth it takes about twelve days and the results of the same dose exhausted in about one month.

The thyroid preparations on the market vary. One should know the strength of preparation being used. Large doses are apt to cause a severe reaction and necessitate the patient going to bed and being watched carefully.

If proper doses are given, results can be seen, if tests are taken at end of two weeks and then later in about eight or ten weeks, continuing for a year. The dose should be given every single day. In order to meet the growth requirements the amount has to be changed every year or so.

TREATMENT—SIMPLE, COLLOID AND ADENOMATOUS GOITER

I have now under observation in out-clinics over two hundred cases of Adolescent or Juvenile Goiter or Thyroid enlargement, between the ages of six and twenty. These are mostly school children from the near vicinity, say within a radius of one hundred miles. I have suggested to several physicians and specialists who do a great deal of maternity work to carefully watch their cases and prescribe iodine medication, when in their opinion there exists a possibility of goiter in the mother, in order that our medication may be administered and be effective as early as possible.

In these two hundred cases under observation, between six and twenty, I have not seen any great improvement in retarding or lessening enlargement from internal medication. We must, however, keep it up as we know it to be a long, drawn out treatment.

The main results will be obtained by medicating the pregnant mother. After there is a pathological beginning, it is difficult to create a reverse in conditions.

From my experience and discussions, which I had with other men of our profession, I have come to the conclusion that more definite results can be procured with iodine than with the various preparations of the Thyroid Gland. Iodine deficiency is probably the cause of Simple Goiter and iodine should be given in an exact dose and under the direction of a physician who will carefully watch his patient and note results.

I have followed the practice of most goiter men in giving a coated tablet containing 10 mg. of iodine, either once or twice a week during the year.

In non-toxic adenomatous goiter, which generally comes on about puberty and no doubt originates from an untreated colloid goiter, the same treatment can be continued, but with care, until about 20 to 21 years of age. The iodine will have no effect upon the nodules but it may lessen the size of the rest of the gland and help cosmetically. These goiters seldom originate after 25 years of age.

After an adenoma has developed, no amount of iodine will remove the growth. After 25 years, or earlier, it is well to suggest the removal of the gland for safety's sake.

In a large percentage of these adenomas hyperthyroidism will develop and cause great damage to the heart and all the other vital organs. Many will enlarge and become unsightly, some grow down under the sternum, extending even into the thorax and the back pressure on the heart in conjunction with laryngeal nerve pressure makes a very serious state of affairs.

Many times advanced toxic or degenerated adenoma has associated with it exophthalmic goiter; then one has to be extremely careful and administer iodine before removal.

The hyperthyroidism of advanced adenoma is characterized by an insidiousness, by an erratic course over a long period of years of low intensity; finally after a period of years, the average being about seventeen or eighteen, a distinct clinical hyperthyroidism develops. In the hyperthyroidism of adenoma, a surgical procedure, is directed to the removal of the tumor. Ligation is of no value; iodine is of no value.

Wegelin and Marine both conclude that these adenomata are potential malignant tumors, as is indicated by the fact that they may continue to grow after the rest of the thyroid has ceased to grow and that a larger percentage of malignant epithelial tumors of the thyroid arise from them.

Treatment of Exophthalmic Goiter

Plumber's remarkable discovery of the efficiency of the administration of iodine as a preoperative measure has largely done away with the long, drawn out preparatory hospital treatment, with the resulting drain on the patient's finances and the ligation and many stage operation are practically matters of the past, in addition to this patients with severe toxic hyperthyroidism and auricular fibrillation are operated upon without unwarranted risk. Even those cases that have gone beyond the type we have just considered, even those approaching the terminal stage, cases showing actual signs of true heart failure can be justifiably operated, in selected stages.

I have had some rather desperate cases of this character that I have operated upon against the advice of the family physician and they are all living and in comfort.

The characteristic and outstanding feature of Graves Disease (Exophthalmic Goiter Hyperthyroidism) is the fact that its complete elaboration takes place within a relatively short space of time, and the case when first seen presents usually a complete clinical picture. All the features of the disease are outstanding and present. In the hyperthyroidism of Graves' Disease, surgical procedures are directed to diminish the actual amount of thyroid tissue by removal of varying amounts of hyperplastic tissue.

In the hyperthyroidism, due to exophthalmic goiter, iodine should never be administered until the patient has decided to submit to an operation and be confined to a hospital. When the patient has had sufficient rest in bed iodine should be given approximately ten to twenty-one days before the day decided upon to operate. The iodine is used to counteract the terrific and sometimes fatal reaction which patients have 24 to 48 hours post-operatively, even after the most perfect thyroidectomy.

Treatment of Iodine Hyperthyroidism

For several years, however, the promiscuous use of iodine in the form of table salt, etc., in the treatment of goiter by certain physicians and persons of no medical knowledge, has given rise to a condition to which the name Iodine Hyperthyroidism has been applied.

Within the last year several cases have come to our clinic and it has only been with the greatest of care that these patients have been saved and one case died before we were able to readjust the treatment.

Any type of goiter may undergo a change, even when in quiescent condition, if iodine is not intelligently given.

Although I used the words "Simple or Endemic" at times, this is not an endemic locality for goiter and a wholesale use of this drug is decidedly a reprehensible practice. We, in this vicinity, must treat each case individually and as I have already said, "Know when to use, what and how to use, the drug indicated."

Summary

In conclusion, I will sum up the points upon which I have tried to lay stress as follows:

1. Simple goiter is not a hypertrophy but essentially a degeneration of the thyroid gland. The gland is not overactive, but underactive.

2. Whatever may be the connection between iodine and the thyroid gland there is no reason for believing that a lack of iodine has anything to do with the causation of goiter.

3. It is quite certain that, at least in the majority of cases, the disease is produced through the agency of drinking water.

4. That there is a frequent co-existence of goiter and tuberculosis in the same patient. And diagnostic difficulties are many at times.

5. The essentials should be thoroughly understood and carefully considered each time treatment for a hypothyroid patient is contemplated, and it should be briefly explained to the patient in order to obtain full cooperation.

6. That treatment of simple goiter, if possible, should be started before birth; and treatment of adenomatous goiter before hyperthyroid symptoms have markedly progressed; and that iodine in this particular variety should never be given. That exophthalmic runs a rapid course and should be recognized as soon as possible and the proper surgical measures observed.

7. That it is an extremely serious practice to treat adenoma of the thyroid with iodine, especially after 25 years of age, for fear of producing iodine hyperthyroidism, and that iodine should only be given to an exophthalmic goiter case when the patient has given consent to be operated upon and has entered the hospital.

END RESULTS OF PROCIDENTIA OPERATIONS*

By FRANK A. PEMBERTON, M.D., BOSTON, MASS.

THIS is a report of the cases of procidentia operated on at the Free Hospital for Women, Boston, from 1909 to January 1, 1924, by seven surgeons. This period was chosen because the method used was worked out and standardized as nearly as it can be by 1909 by the chief surgeon, W. P. Graves.

Procidentia is a degree of prolapse in which the cervix of the uterus protrudes from the introitus or the whole uterus comes outside. The examination of the patients in this series does not always reveal which degree of procidentia was present so we have not tabulated them accordingly. We have included only the cases operated on because of lack of time to read the report of the others. Many were refused operation because of poor general health, diabetes, and other diseases.

The fundamental idea of the procedure is to remove diseased tissue, to build up a strong vaginal support, and to suspend the vagina at a height which will be as near normal as possible. By 1909 it had become evident that vaginal or abdominal support alone was not curative in enough cases.

The cervix is amputated, if it is hypertrophied, by Hegar's method. This removes diseased tissue and gives a higher insertion of the bottom of the bladder on the cervix, so that it is drawn up well by the abdominal operation. The cystocele is carefully done, the attempt being to find the edges of the unstretched fascia on the sides and to suture them together with buried catgut. The perineum was done by Emmet's method during the early years, but for several years a modification of Clark's method by a central triangular denudation with uncovering of the levator muscles higher up on the sides has been used.

The ideal of the abdominal operation is to pull the vagina up so that it will be taut. The procedure chosen depends on how far up the uterus can be drawn. If the fundus comes outside the incision a supravaginal hysterectomy is done. If an amputation of the cervix has preceded this, about an inch of cervical tissue is left. The broad ligaments are sutured to this stump, the bladder flap drawn over its top, and the whole sutured to the abdominal wall an inch or two above the pubes by two silk sutures passed through the sides of the cervical stump and the peritoneum, muscle, and fascia of the abdominal wall, one on each side of the incision. If the uterus can only be drawn up to the abdominal wall, it is attached to it by two silk sutures passed through the fundus in women who have had the menopause. This may be reinforced and the space between the two silk stitches obliterated by a catgut stitch passed from side to side through the peritoneal edges of the incision and the fundus of the uterus. In cases complicated by fibroids, and some others, a supravaginal hysterectomy is done and the fixation used only when apparently necessary, the support of the broad ligaments being depended on in the rest. In younger women a modified Olshausen suspension is usually done. In this series the Simpson, Mayo, and rarely the Baldy suspensions were used a few times according to the ideas of the operator.

If the procidentia is a large one and the general condition of the patient not good it has been customary to divide the procedure into two operations. The first one consists of the amputation, usually the repair of the cystocele and the appropriate abdominal operation. The second one is done two weeks or more later and comprises the cystocele if it has been left, and the perineum. One fault in doing this is that if the patient is allowed to go home after the first operation she may fail to return for the second, and others may refuse it. As a result we have a number who have not had the whole plastic. In most such cases the perineum is the part not done.

Also we find some of these women have diastasis of the recti muscles and umbilical or ventral hernias which we repair carefully.

In some it has been thought wise to use the Moschowitz operation of obliterating the posterior cul de sac to assist in curing the rectocele. In young women who have borne many children sterilization has been advised and carried out, usually by excising the tubes from the uterus.

Number of Years After Operation
Well Cases

Year	Cases	Year	Cases	Year	Cases
1	12	7	13	13	7
2	16	8	13	14	4
3	14	9	7	15	4
4	25	10	11	16	1
5	21	11	6	17	2
6	11	12	3		

The patients were asked to report by letter as to whether they had had any recurrence of their prolapse and any bladder or other symptoms and to report for examination if possible. Sixty-four per cent were examined by members of the staff and letters were depended on for the rest. These reports have been obtained at various times and are one or more years after operation. Those classed as well are without symptoms and, if examined, the vagina has been found to be well held up and there is a good result for the plastic work.

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* Read at the Annual Meeting of the Medical Society of the State of New York at Niagara Falls, N. Y., May 11, 1927.

Number of Years After Operation
Relieved Cases

Year	Cases	Year	Cases	Year	Cases
1	17	5	4	9	2
2	2	6	6	10	2
3	3	7	3	11	2
4	3	8	2	12	1

The causes of symptoms in the 47 relieved cases were as follows:

Prolapse, 5; Rectocele, 12; Cystocele, 16; Hernia in scar, 11; Miscellaneous, 5. (2 patients had both hernia and cystocele.)

The degree of recurrence is slight in any case, because if the patient had symptoms which interfered with her daily life the case was classed as a failure.

There are too many hernias in the scar, but these operations were done on poor people who many times cannot abstain from work after operation for as long as they are told to and who have abdominal walls badly stretched out by many babies.

An analysis of the failures is always the most interesting part of such a compilation as this. The average age was 47, so age had no influence.

Three were due to trauma. One began hard work in a factory after the operation and had a recurrence in less than a year. Two had recurrence after bad falls, one 8 years and one 10 years after operation.

Three were apparently due to pregnancy. One of these had a Baldy suspension and plastics, became pregnant 2 years after operation, and had a miscarriage at 4 months, which was followed by cystocele and retroversion. Another became pregnant in 9 months after leaving the hospital, had a normal delivery, a recurrence which was operated on, and another recurrence after that. The third had a complete operation, a baby, a recurrence and a hernia in the scar.

PROCIDENTIA

Whole Number of Cases	496		Average Age—48.5
Reports obtained from	247		Average Age—49.7
Well	170—68.8%		Average Age—46.0
Relieved	47—19.0%		Average Age—48.0
Failure	21— 8.4%		Average Age—47.0
Deaths in 496 cases	9— 1.8%		Average Age—58.0
Married	239		
Parous	237	Average number of children, 3.8	
Nulliparous	2		
Single	8		
Total nulliparous	10		
Normal labors		135 patients	
Instrumental labors (one or more)		102 patients	
Operation done before menopause			140
Operation done after menopause			102
Not noted			5

TYPES OF OPERATIONS

	Total	Well	Relieved	Failure
Complete Plastic, Hysterectomy, Fixation	76	67%	22%	7%
Partial Plastic, Hysterectomy, Fixation	31	61%	22%	12%
Complete Plastic, Hysterectomy, Fixation	13	61%	15%	7%
Partial Plastic, Hysterectomy, Fixation	6	Not enough cases.		
Complete Plastic, Fixation or suspension	93	75%	16%	7%
Partial Plastic, Fixation or suspension	28	64%	17%	7%

Patients having two stage operation—

Total	94—38% of total number
Well	66—38% of well cases
Relieved	19—40% of relieved cases
Failures	7—33% of failure cases
Deaths	2—22% of deaths

Associated Operations—

Approx. Rect	49
Moschowitz	9
Hernia	15
Complete Tear	3
Sterilization	8
Gall bladder	2

Pregnancy after operation—

No recurrence after labor	2
One child	1
Two children	1
Recurrence after labor	3
One child	2
Miscarriage	1

Complicated Pathology—

Silk Stitch Sinus	9
Fibroids	28
Adenomyoma	2
Hydrosalpinx	1
Parovarian cyst	1
Ovarian cyst	5
Large	2
Dermoid	1
Malignant	1
Retention	1

One was due to the technical fault of making a ureteral fistula in doing a Moschowitz operation, which caused sepsis necessitating several operations.

In the one the operation was primarily for a 64-pound ovarian cyst so that only a fixation was done to save time. She has been comfortable for 10 years with a pessary.

Another patient had ankylosis of one hip so plastics could not be done. The fixation proved uneffective, and she had a recurrence with a hernia in the scar.

A hemorrhage from the vagina after going home probably meant sepsis in the stump of the cervix which was suspended, so the tenth patient in this series had a recurrence.

Four cases had incomplete operations, some step in the plastic being left out in each. One of them was a nulliparous woman. One recurred in a few months, one in 2 years, and one after 13 years.

Seven had satisfactory complete operations. The recurrences came after a few months in one, 2 years in another, 3 years in the third, 5 years in the fourth, 8 years in the fifth, and the time was not noted in two.

It appears then that in 7 cases there was no apparent cause for the failure, 4 may have been due to incomplete operations, 2 to technical faults (sepsis and ureteral fistula) and 8 to unavoidable complications if we do not advocate sterilization of all patients with procidentia.

There were 9 deaths and no autopsies. The average age was 58, which is about 10 years higher than the general average as would be expected. Seven had a one-stage operation, and 2 the two-stage. Five deaths ocurred 2, 3, 5, 16, and 30 days after operation and seemed to be due to circulatory failure. Two had pneumonia and died on the fourth day, and two had emboli, dying on the first and thirteenth days. All patients entered the hospital three to seven days before operation for observation and preparation, and these all seemed to be average risks before operation.

The tabulation speaks for itself largely. It is interesting that there should be 10 patients who had never been pregnant, their condition being due to poor, unelastic tissues. In three of these the operation gave relief only and one was classed as a failure.

In the Types of Operation, a complete plastic consists of a suitable operation on the cervix or none if it is not indicated and a repair of the cystocele and perineum. Partial plastic means that either the perineum or cystocele or both were not repaired. This may have been due to the second part of a two-stage operation not being done or it was thought unnecessary by the surgeon. The table shows that the complete plastic is the more reliable procedure, as would be expected. The fact that more patients were cured by the complete plastic and fixation or suspension is probably because they were not as bad cases as those treated by hysterectomy and fixation. The failures are pretty evenly divided, the highest being among the worst cases with the incomplete operation. Other than that it would appear that the type of operation was well suited to the particular case.

In regard to the associated operations, we feel that approximation of the recti muscles when they are separated is an important step, because it gives a stronger abdominal wall, better support to the viscera, and relieves backache. This backache is due to poor posture which is not relieved entirely unless the protruding, pendulous abdomen is drawn in. It is done by enlarging the wound upward as far as necessary, down to the fascia and reduplicating the fascia by figure of eight sutures passed through it at the edges of the recti muscles. These sutures are usually No. 2 c.c.g., occasionally linen or silk.

The Moschowitz operation is done when there is a particularly deep posterior cul de sac.

As regards Complicating Pathology the sepsis that occasionally occurs around the silk fixation stitches is a nuisance but as soon as the suture comes out the sinus closes. In some instances the silk is passed by vagina.

It is well known that cancer of the cervix is not found with procidentia and in this series of cases no cancer of the fundus appeared.

ORGANIZED MEDICINE ON LONG ISLAND

Five addresses before the Second District Branch of the Medical Society of the State of New York, November 9, 1927.

KINGS COUNTY

By THURSTON S. WELTON, M.D., BROOKLYN, N. Y.

IN review since the last meeting of the Second District Branch the year shows progress in the same general lines of community activity and professional work.

The *keynote* in our public relations is participation rather than mere cooperation by endorsement, or approval of someone else's activity.

The Brooklyn Health Council—a joint committee created by the Brooklyn Chamber of Commerce in whose quarters we are meeting tonight and the County Society—considers general health problems and needs.

The Brooklyn Visiting Nurses Association for whom the County Society, through its Public Health Committee, acts as a medical advisory board.

The Brooklyn Maternity Center Association, whose Directress is making the field visits for the Public Health Committee in its study of the costs of maternity service.

The Nurses Official Registry, on whose Board the Nursing Committee of the County Society has representation.

The American Social Hygiene Association and our Public Health Committee are conducting over a three-year period a study of syphilis control in private practice for comparison with public clinic results.

The Brooklyn Tuberculosis and Health Association makes available $1,000 per year for activities along lines of preventive medicine within our professional ranks. In addition joint activities as in health examination work, public lectures and the like are participated in. The President of the Society is an ex-officio member of the Committee. Support of the library of the Society by the provision of material on tuberculosis is another evidence of the team-work.

The Associated Out-Patient Clinics, now a committee of the New York Tuberculosis and Health Association, functions in Brooklyn with the guidance of our Public Health Committee and aids in the support of that Committee by an annual contribution of $3,000. Dr. Charles Prest, by his friendship, interest and also as a member of the Society, has been of more than material aid.

Our Milk Commission annually certifies over 6,000,000 quarts of milk and is in its twentieth year.

Our Committee on Illegal Practice finds that there are still things to be done. We are trying to make the Webb-Loomis Bill work. Dr. Joseph Behan has been the right man for a thankless job.

The foregoing illustrates our attempt at participation. Various other civic activities are under way; for instance, at present we are providing twenty lectures for the Y. M. C. A.

Within the professional ranks we are continuing along proven lines.

The Friday lectures are continuing 20 a year. The audiences are still large, and the interest keeps at a high pitch.

This week we present the 115th lecture. Paul B. Hoeber, Inc., medical publishers, late last spring brought out the second volume of these practical lectures.

Graduate courses in medical education still continue. Dr. Charles Gordon, one of the founders of the Brooklyn Idea in graduate medical education and who served the State Society so brilliantly in this work, is the present Chairman.

Never in our history have we had such attendance records at our monthly meetings. This reflects little credit on the President, but proves the point that the time was psychologically opportune to attract great numbers.

Associate membership of laymen interested in scientific medicine and the work of the Society has become an accomplished fact.

Last spring we gave 6 lectures by members for the general public.

Last, we still maintain the library—the first public medical library in New York or Brooklyn—now a library of upwards of 110,000 volumes, necessitating the movement, which has gained great momentum and seems to be shaping up as a reality, of a new $1,000,000 home.

QUEENS COUNTY

By FRANCIS G. RILEY, M.D., JAMAICA, N. Y.

AS SPOKESMAN of Queens, I have two topics on which I wish to speak. First of these is Graduate Medical Education. If imitation is the sincerest form of flattery, Kings can be justly proud, for we of Queens, as well as others, have appropriated bodily the scheme worked out by your original Committee on Graduate Education, and during the two years in which we have carried on this work in Queens we have not been able to improve upon this plan. Our work is divided into two divisions: first, our Friday afternoon talks, and second, our Clinical Courses given in the various hospitals in the Borough. The afternoon talks are held in Jamaica as the most convenient place of meeting for a majority of men in the Borough. Our average attendance is about 10 per cent of our total membership We find that a majority of the men are interested in the major divisions of practice and are inclined toward the Surgical. The minor specialties are neglected by the majority for such subjects as Surgery, Gynecology, Obstetrics and Pediatrics. I suppose that this is a condition not local in character and not amenable to any correction through the efforts of our Committee.

Our Clinical courses given at St. John's Hospital in Long Island City, Flushing Hospital in Flushing, Queensboro and Jamaica Hospitals in Jamaica and Rockaway Beach Hospital in Rockaway Beach have been offered on a variety of subjects in each hospital so that men in all parts of the Borough may take advantage of them. They have been on the whole well attended and many of the courses oversubscribed.

My second topic is that of the relation of the County Medical Society to lay organizations that have for their object the promotion of public health. I am aware that this is a controversial subject, with its proponents and its opponents. Personally, however, I feel that the medical profession can receive great help in its fight for better community health from such organizations when the proper spirit of cooperation is evidenced by all parties concerned. The Medical Society of the County of Queens has for several years had the whole-hearted assistance of the Queensboro Tuberculosis and Health Association in such matters as Graduate Education, the establishment of Clinics for the early recognition of tuberculosis and heart disease. Each year our relations have become more cordial. I feel that this is the means by which the medical profession can reach the public as in no other way. The Secretary of the Queensboro Tuberculosis and Health Association is an active member of our County Society. It has on its membership and its Board of Directors a number of other members of the County Society. The interests of both organizations are furthered and protected and, what is more important under this ideal arrangement, the public has benefited to the greatest extent.

NASSAU COUNTY

By **LOUIS A. VAN KLEECK, M.D., MANHASSET, N. Y.**

THE practice of medicine in Nassau County is rapidly changing as rural conditions give way to urban. Owing to the great overflow of people from New York City, the population of the County has doubled during the last five years. Yet the Nassau County Medical Society has continued the leadership in civic medicine that it has always taken, and has actively promoted every public health project that has a practical value.

The Society made an intensive study of the hospital situation in 1922, and found that there was less than one bed available for each one thousand of population. Its committee made a report on the localities in which new hospitals may be located to advantage, and its suggestions have been heeded in their establishment.

The Society has also insisted on the requirement that every physician on a hospital staff shall be a member of the County Society.

The County is in great need of a hospital for the care of chronic cases, especially those of advanced cancer. There is also a great need of a hospital for the treatment of communicable diseases. The County Society is promoting both of these projects. Provision for the treatment of venereal diseases is also receiving attention.

Tuberculosis work is centralized in the County Sanatorium under the leadership of Dr. A. J. Davis, Superintendent. The physicians are cooperating with the sanatorium physicians and the staff of field nurses in the promotion of diagnostic clinics in the home visitation of cases. The Society is well satisfied with the administration of anti-tuberculosis work.

The Nassau County Medical Society meets once a month and precedes each session with a social supper which brings the members together on friendly grounds. During the winter the Society also has a weekly lecture on some subject that is chosen by means of a questionnaire of the members.

The Society recognizes the need of a county health department, especially since there has been an epidemic of forming new villages each of which is an independent health unit. There are now about twenty small villages in which public health work is on too small a scale to be effective. The County Society voted to promote a county department of health about eight years ago, but its establishment was delayed because a proposed county charter embodied the plan. The members of the County Medical Society now recognize that the need for a county health unit is more acute than ever.

It may be truthfully said that the Nassau County Medical Society stands for the leadership of physicians in all phases of the practice of medicine.

SUFFOLK COUNTY

By W. H. ROSS, M.D., BRENTWOOD, N. Y.

WHATEVER any County Medical Society is doing to meet the present day medical problems arising from the changing conditions of modern life cannot be reflected better than by what they do in reports and discussions at their meetings. It cannot be shown in any better way just how the medical profession undertakes to safeguard general health (call it public health if you like) in addition to curing disease. I have chosen to tell you something of the annual meeting of the Suffolk County Medical Society held two weeks ago in order to show you what it is doing in civic affairs and thus to pass in brief review the work of Suffolk County in civic medicine for the last year. I cannot draw on imagination in this because I am dealing with facts.

I have in my hand the program of the meeting of October twenty-seventh. There were reports on public health; children's clinics; general hospitals of the county; the need of more beds for the chronic indigent cases; report of the Publication Committee; of the librarian; the Legislative Committee; the anti-tuberculosis work in the county; the official public health work by the district health officer and the district supervising public health nurse; the County Tuberculosis and Public Health Association; child welfare work; reports from the four district medical societies of the county and then a scientific program of a five-minute clinical report from each of the four general hospitals and a moving picture of the pathology of syphilis of the heart and of aneurism.

I wish to add a reference this year to the report that I made a year ago. We continue to publish our monthly News Letter—fifteen hundred copies—thirteen hundred of which we sell to the Suffolk County Tuberculosis and Public Health Association for distribution. We do not farm out this publication nor do we publish the medical and health organization news and the allied medical and welfare activities in the county. We indulge in editorial comment which frankness gets us into moderate trouble once in a while and gives some of us mental exercise in the art of defense. Several of these reports offered constructive suggestions for the future and two showed how active the doctors are in child welfare and public health work and that about sixty per cent. of the physicians of the county were performing some amount of public health service. A report of this meeting will occupy an entire issue of the *Long Island Medical Journal* and will show in a way that makes unnecessary my going into further detail, the activity of the Suffolk Society in civic medicine.

I think that I have indicated enough to show that we are in the vanguard in medicine and that we are keeping up with the other counties of this District Branch. In one respect we believe that we may be leading in that there is not a single organized lay health effort in Suffolk County not dominated entirely both in program and in administration by medical men and none not directed by the County Medical Society. Even the public health committee of the large active flourishing Long Island Chamber of Commerce has upon its membership two men of the four county societies of this District Branch and some civic minded men are on the Chamber's board of directors.

The evolution in medicine including prevention of disease goes steadily forward. Passing the year in review the Suffolk County Society has met its obligations and has made some advance in safeguarding man from the hazards of modern life. Among other things the Suffolk County Society has studied hospital management; the number of beds available per thousand of population and published reports. The Society did this because it discovered that the average layman was more interested in hospitals than he used to be because he appreciates more the service that they can render.

The Society has done much to advance staff organization in hospitals for the purpose of critical review and analysis of hospital work and better standards of practice. It has done something to make the county hospitals teaching centers and places from which radiate the forces that advance standards of medical practice and that continully give a post graduate course in medicine to its staff.

The Society's plans for the future are to continue the activities that are producing results, solving present problems, and to aid new things as the evolution in medicine shows the way. A main objective this year is to establish a County Health Department because health is no longer the problem only of a local neighborhood. How soon the conviction that a County Health Department is needed and will find its expression in the establishment of one depends, we believe, upon the active leadership of the County Medical Society and all the lay aid that we can have from every source.

We believe that doctors only have the ability to choose between theoretical and practical activities in health matters. The development of public health and the practice of the prevention of disease is a doctor's game. The responsibility rests with physicians.

Unaided financially Suffolk County has reduced its tuberculosis death rate to 44.7 per hundred thousand of population—excluding non-resident population just by exercising leadership in medical and allied affairs and in having a program and in steadily pursuing it year after year by examining contacts. We have listed now 1,728 cases of tuberculosis in a population of 143,000—or nearly 12.5 per thousand.

We are ready to report to the State Society that Suffolk County began to grasp the new obligation that everyone sees now resting on the medical profession ten years ago when we bought a site for a tuberculosis hospital and then canvassed the county in an election to carry a referendum vote, and won it against decided opposition, and that we have grown in a sense of understanding our professional obligations in addition to practicing curative medicine; and that we caught enough of the spirit of it all so that we saw the need of leadership while there was yet time to assume it.

THE RELATION OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK TO THE PHYSICIANS OF LONG ISLAND

By JAMES E. SADLIER, M.D., POUGHKEEPSIE, N. Y.
President of the Medical Society of the State of New York.

MY addresses before the other District Branch meetings have been on the general subject, "The Aims and Activities of the Medical Society of the State of New York." My subject tonight is more concrete, and is "The Relation of the State Society to YOU—Physicians of Long Island." This directness of address has been made possible by your program which is unique in that it is devoted entirely to organized medicine. Moreover, the specific reports from each constituent County Society afford the occasion for a comment by the official head of the State Medical Society. I was aware of the advanced accomplishments of the four County Societies of Long Island; and when I met the representatives of the Societies last June to plan for this District Branch meeting, I made the suggestion that the Committee invite the physicians from the whole eastern end of the State to come here and see what the doctors of Long Island are doing in their Medical Societies.

It is a pleasant duty of the President of the State Society to go over the State and meet the members at home, and see what they are doing. I have found that curative medicine—the treatment of established disease—is being done increasingly well all over New York State. New hospitals are being built, and old ones enlarged; clinics are being established, and the staff meeting has become a standard institution whose omission marks a hospital as backward. The reports given tonight by the county representatives show that the doctors of Long Island are equalling the record of those of any other part of the State in curative medicine; but they also show that the Long Island doctors have been peculiarly successful in the practice of preventive medicine.

The practice of medicine is changing, and no doctor can now afford to limit his practice to the cure of established diseases—he must be active in seeking to prevent sickness and disease. Physiological processes pass insidiously into the pathological and health fades into sickness just as the green leaves change into the livid hues of autumn. It is the function of the physician to note the change from the normal to the pathological—to guard the people against designing alarmists, and yet promote all measures for detecting approaching sickness and warding off disease.

Lay organizations have often appropriated the fields of preventive medicine, and often it has been with the consent of the medical profession. But the doctors of Long Island have recognized their civic duties early, even before the wave of enthusiasm over preventive medicine had been raised by lay health organizations. It is refreshing to hear from the reports how the lay health organizations of Long Island work for the doctors, instead of the doctors working for the lay organizations.

The doctors of New York State recognize the vital need for lay organizations in public health work, let no one think otherwise. The peculiar field of the lay organizations is twofold: first, to add to the facilities by which physicians can practice better medicine; and second, to stimulate the demand of citizens for the services of the physicians along both curative and preventive lines. To provide doctors with hospitals and nurses and other means for the practice of medicine is as important as the actual ministrations of the doctor. There is glory enough for all. In fact, physicians shrink from publicity. The people need to deal with facts rather than the display of emotion, and physicians need to guide the lay organizations so that they may function along practical lines. The physicians of Long Island have shown how the representatives of the medical societies may exercise a gentle and friendly leadership over the lay health organizations.

EDITORIAL

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For list of officers of County Medical Societies, see November 15 issue, advertising page xxviii.

COURT EVIDENCE OF INTOXICATION

The legal aspects of court evidence in cases involving the question of intoxication are discussed by Mr. Stryker, the legal counsel of the Medical Society of the State of New York, on p. 1321 of the legal department of this Journal. The court usually relies on the physician to give testimony whether or not the accused is intoxicated. The opinion of any one regarding the intoxication of a person, is admissible in court, and much more will the opinion of a testifying doctor be admitted. Both may be cross-examined, but the opinion will not be stricken from the record because the witness cannot describe a test or symptom that is a sure proof of intoxication.

Mr. Stryker's article will enable the physician to testify with confidence regarding the soberness or intoxication in a case such as that against an automobile driver in which a slight degree of mental incoordination may be fatal.

A PROGRAM FOR A DISTRICT BRANCH MEETING

The theory on which the eight District Branches of the Medical Society of the State of New York is founded is that each one is a geographic group whose interests and associations are similar. The number of members in the groups varies from about 400 in the Fourth District, which is located in the northeast section of the State, to over 4,800 in the First Group, which includes the boroughs of Manhattan and the Bronx in New York City. The immediate interests of the members of the groups vary as widely as the physical geography of the sections; and the problems of mountainous Clinton County on the Canadian border are not those of Manhattan with its canyons teeming with cliff dwellers. The District Branches enable the members to meet together and discuss their common interests; and the President of each Branch is a member of the Council of the State Society and brings to it an intimate knowledge of his own District, and especially of the activities of the County Medical Societies. The District Branches, therefore, are connecting links between the County Medical Societies and the State Medical Society, and their functions are largely advisory. Their officers are available for the assistance of the leaders of the County Societies; and they bring to the State Society a record of the activities and sentiments of the members of the County Societies.

The annual meeting of the District Branch affords the opportunity for the representatives of the County Societies to report on their accomplishments and aspirations; and to meet the officers of the State Society both socially and officially. The program of the meeting will therefore reflect the sentiments of the members of the constituent societies. A period of four years of attendance on practically all the District Branch meetings, thirty-two in number, makes possible the construction of a composite program which shall embody the best features chosen from all. While no meeting may conform entirely to the model, yet every feature of the ideal program has been in concrete operation in some meetings.

One feature on which there has been almost a unanimity is that the meeting shall consist of three parts:

1. Administrative.
2. Social.
3. Scientific.

The administrative section is devoted to Medical Society problems—those which are handled by organizations rather than by individual physicians. This part of the program will naturally be in three parts:

1. A survey and report of the activities of each County Society by its president, secretary, or other officer.

2. A report on the District by its president.

3. A discussion of the policies of the State Society by its president, with special reference to the particular needs of the District.

A certain length of time will be assigned to each report, and that period will be strictly observed.

How shall the length of the period be determined? There is only one way—have each speaker write his report and send a copy to the president of the District Branch and another to the president of the State Society for their use in preparing their own written addresses. With these addresses at hand, the program committee can assign a time to each speaker with confidence that it will be observed. When a speaker writes out his remarks, he will say all that he wants to say, and will put it in clear, concise language and in an attractive style. If the speaker is good at off-hand talks, he can inject humorous side remarks to delight his admirers.

Moreover, a written manuscript is valuable from an editorial point of view. Speakers frequently object to being quoted literally, and to the editor's paraphrase of their remarks. A manuscript will promote the peace of mind of both the author and the editor. It will also ensure the author recognition in the JOURNAL.

The embarrassing situation may arise that the president of the County Society may think he has nothing to report. There is no society that has nothing at all to report. Every society has something along the line of either accomplishment or aspiration. The mere fact of making a survey of the county is a big step toward undertaking some tangible activity. When the president of a County Society reports a need along a certain line, he may be sure that he can receive the assistance of the officers of both the District Branch and the State Society. One of the great objectives of the officers of the Medical Society of the State of New York is to secure originality of action by the local societies. They are interested in the aspirations of County Societies even more keenly than in their accomplishments, for aspirants require assistance.

The peculiar field of work of County Medical Societies is the practice of public health and civic medicine; and the assumption of their rightful leadership in all lines of medical practice is the newest development among organizations of physicians. The president of every County Society numbers health officers among its members. The president often comes in contact with lay workers, such as those in the County Tuberculosis Committees, Parent-Teachers' Associations, and Public Health Nursing Societies. His report can tell the relations of the doctors to these organizations, and outline plans for future cooperation.

How long should the administrative part of the program last? If there are six constituent county societies, an assignment of five minutes to each

—which is enough—will occupy thirty minutes. The president of the District Branch and the president of the State Society will each require fifteen minutes. Thus a minimum time of an hour will be required for the administrative part of the program.

When should the president of a District Branch begin to prepare a program? Two or three months before the meeting, or long enough in advance to inform each speaker what is expected from him and to give him time to prepare his report. A program will not develop and run itself. The president has an allowance for expenses, such as clerical hire, for arranging his program and conducting the meeting. He can secure the reports from the County Society officers if he goes after them; and then, of course, he will prepare his own report and inform the president of the State Society about the contents of all the reports.

The social part of the program is of as much importance as that of the administrative and scientific sections. Getting acquainted with one another is one of the great attractions of District Branch meetings. A reception committee is a necessary adjunct on every program. A conspicuous ribbon will distinguish each of its members, and will be his introduction to each newcomer and his authority as official handshaker. When a physician enters who is a comparative stranger, the committeeman may properly inquire, "Where are you from? Are you looking for any particular person? Can I introduce you to some member in whom you will be interested?" A member who is received in this hearty way is likely to come again.

The reception committee will also keep a roster of those present. The president will use it in making up his plans for next year's meeting.

A social dinner is an important part of a program. Let it be served on the minute that was advertised, or even earlier. A hungry member is impatient and irritable for physiological reasons that doctors, of all people, should respect. Feed this member, and he is at once receptive to new ideas.

After a dinner, there is always difficulty in dragging groups of members apart. Meeting their fellows socially is one of the attractions which promotes a large attendance. It is one of the important duties of the members of the reception committee to introduce the lone, diffident member into animated groups where he may feel at home and enjoy himself.

A scientific program has a place in every District Branch meeting. The members are interested in what they do in the course of their daily work. They see a dozen or more sick people every day; they take an active part in some form of public health work once or twice a week. The great development of graduate medical education during the last three years is evidence of the desire of physicians generally to learn the most modern methods of diagnosis and treatment.

These two facts are to be kept in mind in making a scientific program—first, the great majority of physicians are general practitioners, and second, every specialist needs to know general medicine. What kind of paper appeals to the members of a District Branch? It is one that is an index to a subject rather than its complete presentation in all its details. For example, popular papers have been given on the following topics:

The acute abdomen, and what the doctor is likely to find in it.

Newer operations on the nervous system.

Modern gynecological procedures in office practice.

These papers were accompanied by charts and lantern slides, and demonstrated what a doctor should look for rather than how to carry out the details of an examination. The group of medical teachers who are being discovered and developed is constantly being enlarged as doctors trained in literature and research are becoming available.

Shall there be a discussion of every paper? There is no occasion for a discussion of any of the three subjects that have been quoted. A discussion belongs to a paper that sets forth a new discovery, or method, or plan, to an audience of the peers of the speaker; but a discussion is likely to be an anti-climax when a speaker drones on after a brilliant presentation which is designed to arouse the physicians to desire to know more about a subject, and to have it consciously in mind in the sick room.

Another fact is to be borne in mind by those who prepare the programs of District Branch meetings—the doctors come late and go away early. A few come especially to hear the reports of the officers of the medical societies. Most come to hear a scientific paper. All are glad to meet their medical brethren.

The members are always impressed with a program that applies to their particular locality; and they will praise the speaker who gives a clear, concise paper on any subject.

FAITH HEALING

The Rev. Dr. John Roach Straton, Pastor of the Calvary Baptist Church, West 57th Street, New York City, has been conducting special services during the past month for the purpose of healing the sick. The method used is literally that prescribed in the Bible, in the Epistle of James, Chapter 5, verses 14 and 15, which read:

"Is any sick among you? Let him call for the elders of the church, and let them pray over him, annointing him with oil in the name of the Lord;

and the prayer of faith shall save the sick, and the Lord shall raise him up, and if he have committed sins, they shall be forgiven him."

The Bible and the church have always stood primarily for healing the soul, and secondarily for healing the mind and the body in so far as they affect the soul. Faith and prayer are the two means which the church uses, and which are approved and encouraged by the very great majority of physicians, both Catholic and Protestant, Gentile and Jew. The faith of the patient is at the foundation of all healing. The physician seeks to arouse the sick to have faith in his ministrations and in the healing power of nature. Those piously inclined will personify the healing power and call it their personal God; and also the power of evil, and call it Satan. The majority of physicians, whether they be churchly inclined or not, will be content to implant faith in the hearts of the sick without defining too closely the object of that faith.

Faith enters into every act of healing. The man with a broken leg needs faith to enable him to lie quietly in bed during a month of reconstruction, and to bring calm sleep during the long night hours. The crippled boy needs faith to ignore the pain and stiffness of a chronic arthritis of the knee as he throws aside his crutches and walks. Faith itself is the means of healing the paralysis of a "shell shocked" soldier whose condition is due to a defect in his will power. Every physician seeks to inspire faith in his patients, and feels that he is a failure in the absence of evidences of that faith.

Dr. Straton, of Calvary Church, has an unbalanced program if he depends on faith alone to heal the sick who come to him. The Apostle James, whose method the pastor follows implicitly, insists on works as well as faith, and would doubtless utilize the healing work of the physician quite as much as the faith of the patient. It is difficult to determine to what extent, if any, pastor Straton ignores the physicians. The cases who seek him, like those who came to Christ, seem to have gone to many physicians without relief, and they will go back to their doctors when their infirmity recurs. At any rate the benedictory touch of the pastor can have no such damaging effects as the violent laying on of hands by the chiropractor.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Volume Two of this Journal: The December 1902 issue of this JOURNAL says editorially:

"THE NEW YORK STATE JOURNAL OF MEDICINE with this number completes its second volume and we believe that this JOURNAL has lived up to all of its promises.

"From time to time various changes have been made, all tending to improve the character of the matter presented. It is as previously stated, the official organ of the New York State Medical Association, presenting matters of interest to its members in the shape of reports of the Council and Fellows, the news of its Annual, District Branch and County Association meetings, scientific contributions from its members, etc."

The present department of book reviews is still conducted with the same ideals as those stated twenty-five years ago:

"The column devoted to Book Reviews has received careful consideration and our aim is to present concise and careful criticism of the contents of the book, rather than a superficial résumé of the author's preface. These books are placed in the hands of active members of the Association who have made special study of the subject before them and hence all criticism is associated with intimate knowledge of the subject. Personalities will not appear."

The JOURNAL has not developed its news personals or its correspondence columns according to the plan set forth:

"An additional column of News Items has been added and members are requested to send information of appointments and matters of social interest to the publication office before the 20th of the current month. Correspondence with our members is solicited, as we are especially desirous of impressing all our members that this JOURNAL is their own property and is run for their benefit and not purely as a business venture."

The following statement regarding advertisements is as important as ever:

"To defray the large cost of the publication of both JOURNAL and Directory it is necessary for us to have advertisements. The advertisements are most carefully considered, those that are ethical in the strictest sense only are received; hence our advertisers are in turn deserving of every consideration. If members will bear this in mind and mention the JOURNAL when communicating with advertisers, the latter will readily see the advantages of continuing their support."

The bureau of information and provision for visiting doctors have not worked exactly according to the editorial plan:

"Finally we again call attention to our Bureau of Information at our business office, 64 Madison Avenue. Not only will we cheerfully furnish any information in our power, but we will be glad to have our members, especially those who reside at a distance, make the office their headquarters. This invitation is extended to the wives of our members who may wish to rest, write letters, receive mail or meet their husbands here."

MEDICAL PROGRESS

The Pathology of Sea-Sickness.—After reviewing the theories that have been advanced to explain the cause of sea-sickness, G. H. Oriel (*Lancet,* October 15, 1927, ccxiii, 5433) describes carefully controlled experiments which prove that labyrinthine disturbances, if present, do not give rise to nystagmus or to alteration in labyrinthine tests. Other observations show that autosuggestion is not wholly responsible, as there is a distinct metabolic upset found in the pre-vomiting stage, as evidenced by hyperglycemia followed by hypoglycemia, increased ammonia excretion, and the presence of acetone in the urine. The administration of three drachms of glucose to more than 1,000 patients with sea-sickness gave results far superior to those obtained by the exhibition of the remedies ordinarily employed. When glucose is administered in a well established case acetone disappears from the urine, diuresis takes place, and ammonia excretion is lowered, with a corresponding increase in the total acidity in the urine. Pari passu with the metabolic change there is an improvement in the general condition, and headache is abolished. The effect of the glucose in a well established case is much more dramatic than in the pre-vomiting stage, though it is also beneficial in this stage. Oriel has observed that if passengers can be persuaded to eat plenty of fruit and carbohydrates and to avoid fats, that they are never violently sick. The common error is to avoid food, which, of course, leads to early exhaustion of the glycogen reserve; acidosis is the inevitable sequel. It may be advisable to administer small doses of insulin with a large dose of glucose in those cases in which relief is not afforded by the administration of glucose alone. Though Oriel has not tried this himself, he hopes others will test its feasibility.

Atropine and Scopolamine for Sea-Sickness.—Dr. H. E. Kersten, who has made many sea voyages and has always been interested in the problem of sea-sickness, refers briefly to the relief given by certain forms of suspension apparatus which offset the rolling and plunging of sea craft. He then speaks of the action of atropine as a vagus paralysant as recommended by various writers many years ago, on the theory that sea-sickness depends largely on excitation of the vagus through the semi-circular canals. Starkenstein has combined hyoscyamine with atropine since, despite the similarity of the drugs, the mixture is less toxic than the same weight of atropine alone. Kersten sought to substitute scopolamine for hyoscyamine and in a sea voyage to the United States in 1926 provided himself with tablets containing the combination. On board were 19 travelers with severe sea sickness which had resisted the usual remedies. All were confined to their staterooms. It was impossible to get some of them to swallow the tablets so that suppositories had to be substituted. A second dose could follow only after the expiration of 3 or 4 hours, to avoid poisoning. The rest of the treatment was to have consisted of repose and careful diet, but so marked was the relief obtained that some of the patients left their rooms, completely relieved, and refused the second dose. Surprising to relate, the symptoms did not return during the balance of the voyage. The passengers were witnesses of the remarkable outcome of the trial and the author, for the first time in his long experience, saw sea-sickness yield completely to drugs. No failures are mentioned, although in some cases the results seem to have been more brilliant than in others. The present is only a preliminary statement, as the author will report his results in more detail at a later period.—*Münchener medizinische Wochenschrift,* September 16, 1927.

Tribromethyl Alcohol in Psychiatry.—F. Sioli and R. Neustadt refer to the very recent trials of this substance as a rectal narcotic and to the numerous reports by clinicians of its use in several hundred cases in producing both surgical and obstetrical anesthesia. Since it procures sleep of some hours' duration it should also have a field in psychiatry and the authors have tested the drug for this purpose 53 times in 40 patients. The results were positive in all but 2 cases in which neither narcosis, sleep nor after-sleep resulted. In the great majority of cases the result was a narcosis, but in seven it was merely sleep. The effects were prompt and the sleep profound, like natural sleep. When the first effect was narcosis a secondary sleep followed. A ward of women patients which was usually noisy at night was astonishingly quiet and the stillness persisted into the following day. Despite the results of this wholesale trial the authors do not seem to have repeated it, evidently because narcosis as such was too vigorous a remedy. Attempts were made by modifying the dosage to tone the action down to simple slumber, but with small dose devoid of narcotic effects sleep was brief—1½ hours—and no after-sleep was seen. The drug must be given by enema and a tenth of a gram per kilo of body weight was found to be quite safe. Neither local nor collateral ill effects were seen and it is probable that this kind of narcosis will be found well adapted to control any of the mental states attended by great excitement.—*Klinische Wochenschrift,* September 24, 1927.

Hypertension of the Pulmonary Circulation.—This condition, not heretofore considered to be a clinical entity, is discussed by Eli Moschowitz with reference to its causes, dynamics, and relation to other circulatory states. Hypertension of the lesser circulation usually passes under the name of "pulmonary congestion," "right-sided insufficiency," or "arteriosclerosis of the pulmonary vessels." It is caused by any lesion that increases the peripheral resistance within the lesser circulation. The most common causes are mitral disease, especially mitral stenosis, emphysema, whether primary (senile) or secondary (asthmatic), infiltrating lesions of the lung (chronic tuberculosis with induration, bilateral pleural synechiae, chronic interstitial pneumonia, tumors), kyphoscoliosis, patent ductus arteriosus, and communications between the two sides of the heart. A sustained hypertension of the lesser circulation leads to arteriosclerosis of the pulmonary vessels; it may occur in much younger individuals than arteriosclerosis of the greater circulation. A "primary" arteriosclerosis of the pulmonary vessels, if it exists at all, is extremely rare. There is a mutual independence of arteriosclerosis of the greater and lesser circulation. This indicates strongly that no poison, bacterial or otherwise, metabolic product, or food substance can cause the lesion, because the same blood bathes both circulations. The physical signs of hypertension in the lesser circulation are those brought about by the compensatory mechanism. Of primary significance in the recognition of the condition are an accentuated second pulmonic sound, especially in the stage before decompensation begins, rise in venous pressure, swelling and tenderness of the liver, Graham-Steelle murmur, dilatation and hypertrophy of the right heart, dilatation of the pulmonary conus, dilatation of the superficial veins (especially pectoral), cyanosis, lowered kidney function, and infarction of the lungs. The one inevitable symptom is breathlessness. It is the disturbed function and not the arteriosclerosis that is responsible for the clinical syndrome. A transient (usually terminal) hypertension of the lesser circulation may occur in general vascular hypertension following mitral disease, when myocardial insufficiency develops and when there is an associated emphysema. In left coronary disease it arises only after myocardial insufficiency sets in. So-called Ayerza's disease is not a disease but a syndrome due to any lesion that causes hypertension and arteriosclerosis of the lesser circulation. The constant relation of syphilis to this disease is not proven. Edema of the lungs may either follow or cause hypertension of the lesser circulation. It is caused by changes in the cardiac rhythm only after myocardial insufficiency arises. There is a likelihood that cirrhosis of the liver associated with cardiac disease is the result of increased tension within the hepatic area. This type of hypertension may also explain cyanosis in congenital heart disease.—*American Journal of the Medical Sciences,* September, 1927, clxxiv, 666.

Cerebral Arteriosclerosis. — E. Guttmann enumerates the leading symptoms under this head which may be grouped in various ways. He mentions first a nervous group characterized by intense headache, vertigo and insomnia, and associated further with such psychic manifestations as memory failure and lowered efficiency. These may persist as such for years and with course not steadily progressive but marked by remissions. Another group may develop, which the author terms the "neurologic," but which might better be termed circulatory, characterized by cerebral hemorrhage, rush of blood, nosebleed, etc. According to the seat of the hemorrhage the symptoms vary extremely, although typical hemiplegia followed by death in 24 hours is a common termination. The third group is known as the psychiatric and the principal manifestation is arteriosclerotic dementia. At the outset, however, various types of insanity may be mimicked with manic and depressive manifestations, hypochondria, paranoid fancies, suicidal impulses, etc. In this third group belongs arteriosclerotic epilepsy. The brain is seldom involved alone, some other region of the body usually participating in the vascular changes. Under the head of disposition to apoplexy may be mentioned the pycnemic habitus of Kretschmer which disposes both to this lesion and manic-depressive insanity. In the clinic we also see an association of circular insanity and apoplexy. In addition to the usual causal factors the author mentions excess of cholesterol in the blood. Westphal has recently reported that all of his apoplectics showed hypertension. A reputed antagonist to excess of blood-cholesterol is potassium sulphocyanide, recently re-introduced into practice by Westphal. — *Klinische Wochenschrift,* September 17, 1927.

Changes in the Type of Epidemic Encephalitis.—F. Kreuser and E. Weidner call attention to the fact that the original form in which this disease first appeared is not constant. At the outset we saw a hyperacute disease which showed a preference for the cranial nerves, while at present the beginning is chronic and insidious and the brunt of the disease is borne by the spine and spinal nerves. Cranial nerve paralyses have become rare and transient. It is as if the disease had crept down from the brain to the spine. We also see today various anomalies of the vasomotor system, and neurasthenic or psychopathic personality alterations, which are not to be confused with the psychic alterations originally reported in the case of children. The authors report seven cases, with ages varying from 17 to 42 years, which illustrate the changed type or atypical character of the disease. Despite what has just been said of an insidious origin, six of the seven patients came down originally with what appeared to be acute influenza but without suggestion of encephalitis. Associated with the headache, prostration and fever were such vasomotor symptoms as sweating, salivation, livid and cold hands and feet, etc. Motor phenomena were limited to tremor or tic-like spasms of the head and neck. Aside from this grippe-like onset the development of the symptoms was gradual. In one of the seven patients, a woman of 29, there was no grippe-like onset but the initial symptom was difficulty in swallowing. It was necessary to use the fluoroscope to exclude the presence of a swallowed foreign body. Severe cardiac crises developed with pain and tachycardia, a sense of impending death, and many hypochondriac sensations. These attacks of palpitation and dysphagia were also present in other patients of this series. It is not entirely clear, from the character of the symptoms, how the authors were able to make the diagnosis save by exclusion, for there was hardly anything suggestive of encephalitis.—*Deutsche medizinische Wochenschrift,* September 9, 1927.

Mucous Colitis Due to Food Allergy.—Edward Hollander, writing in the *American Journal of the Medical Sciences,* October, 1927 (clxxiv, 4) describes five cases of mucous colitis caused apparently by hypersensitiveness to food proteins. In these cases the treatment usually employed, consisting in the removal of foci of infection, colon irrigations, acidophilic bacterial implantation, correction of ptosis by mechanical support, bland protein diet, and sedative medication, failed to give more than temporary relief. The clinical picture disappeared only after the omission of foods to which the patients were sensitized, and it reappeared when the foods were ingested, indicating that food allergy was the cause of the mucous colitis in these cases. The method employed to detect the presence of sensitization consisted in the injection of foreign substance within the epidermis. The proof of relationship between the hypersensitiveness and clinical symptoms must depend, in the last analysis, not alone upon the positive dermal tests, but also upon the disappearance of symptoms when the offending material is withdrawn, or if that is impossible, when immunity can be established by methods of desensitization. In addition to the phenomenon of sensitization, mechanical factors must also be considered. When a mucous membrane is sensitized it is in an irritable state and coarse substances may cause symptoms from mere mechanical irritation. When the colitis is of a continuous nature uncommon articles of food need not be tested. In making the tests in the cases cited the author used seventy-five of the more common foods, and in all except one case found the patient sensitized to six or more articles of food.

Occurrence of Paratyphoid-B Bacilli in Healthy Live Stock, Etc.—Dr. M. Friesleben refers to the original discovery by Uhlenhuth of the existence of an organism resembling the paratyphoid - B in healthy farm animals and also in dogs, rodents, etc. The next question to settle is whether these organisms are pathogenic to mankind. No attempt was made to inoculate volunteer human beings, the tests being limited to agglutination. These tests seem to have resulted chiefly in the negative throughout—that is, there was no reciprocal agglutination between strains known to be pathogenic in man and those cultivated from healthy animal dejections. An exception was found, however, in some sera obtained from grey mice and white rats, and here the two strains appeared identical both bacteriologically and serologically. Whether these small rodents can contribute to set up paratyphoid infection in man cannot yet be stated, but on general principles the author is in favor of a campaign of extermination against them.—*Deutsche medizinische Wochenschrift,* September 16, 1927.

Clinical Studies of Bronchial Asthma.—Dr. E. Kylin of Jönköping, Sweden, has studied the physical basis of asthmatic subjects with the following conclusions: There is a pathological displacement in the metabolism which affects especially calcium, potassium, chlorine and water. There is a diminution in blood calcium with an excess of blood potassium, so that the potassium-calcium quotient is abnormally high. Immediately before an asthmatic crisis there is an increase of blood chlorine which is succeeded after the crisis by a diminution of the same. The asthmatic also shows very high values of urinary calcium, and when calcium chloride is injected intravenously the percentage of calcium in the urine is abnormally high as compared with normal controls. The adrenaline blood pressure reaction is vagotonic in the asthmatic subject which may be brought into relationship with the behavior of the potassium-calcium ratio. The blood pressure of asthmatics may be too high or too low as a result of the insufficiency of the blood pressure-regulating apparatus. The appearance of an asthmatic crisis is to be conceived of as complex. Necessary is the asthmatic readiness or predisposition, which in turn is due to anomaly of metabolism, and in addition to this endogenous factor there must be an exogenous irritating factor corresponding to what was formerly termed a "miasm." Crises may also be of psychogenic origin.—*Klinische Wochenschrift,* September 10, 1927.

Dental Focal Infection. — Professor H. Schottmüller of the Hamburg-Eppendorf Hospital, writing both as clinician and bacteriologist, is firmly opposed to the American doctrine of dental focal infection as unproved and insusceptible of proof. The idea did not at any rate originate among the Anglo-Americans, he says, for in 1885 von Kaczorowsky wrote of focal gingival infection, while in 1909 Pässler anticipated the Englishman Hunter and the American Billings in advancing the modern theory. The term sepsis, the author says, is poorly suited to characterize some of the innumerable symptoms, many functional, ascribed to this origin. A distinction must of course, be made between active and silent infection, and the existence of the former is not disputed although its occurrence is relatively infrequent. Endocarditis lenta is an affection which requires months and years to develop and it is not possible to associate infections of this type with the presence of the *Streptococcus viridans* in some focus of the moment. The author's own laboratory experience does not uphold the claims of Rosenow. In certain types of case a connection between a disease focus and another lesion is unmistakable, as in kidney infections from tonsillar lesions. We cannot, however, deduce from this that infected teeth set up nephritis. The author repudiates the entire theory of the dental or focal origin of muscular and articular rheumatism and his opinion is shared by such well known clinicians as Gudzent and Strauss (although Volhard has seen a connection between infected gums and nephritis, not a few of his nephritic patients having pyorrhea). Schottmüller says that not all Americans are partisans of the focal infection theory, and some of the dentists (he mentions only Thoma) are opposed to it. There is a great body of negative evidence, beginning with Löffler, who never traced any systemic or remote infection to dead teeth, while in a material of thousands of children with caries there was none with infected joints. Finally this sceptic says extirpation of foci frequently fails to cure.—*Münchener medizinische Wochenschrift,* September 9, 1927.

The Non-Specific Treatment of Pneumonia. —Writing in the *Canadian Medical Association Journal,* October, 1927, xvii, 10, Fletcher McPhedran points to the fact that penumonia is characterized by a severe toxemia with high fever and tachycardia. He adduces evidence to show that cardiac failure never is the cause of death, but that the rapidly rising pulse with lowered blood pressure and the consequent dusky cyanosis so fatal in prognostic significance are due to vasomotor paralysis. The effect of the toxemia is comparable to histamine shock. What is needed, therefore, is an antidote to this histamine-like substance, which will increase blood pressure by general stimulation of all vessels. Unfortunately such a substance is not known, but digitalis does favor constriction of various vascular areas, notably the vessels of the intestinal tract. Hence its general effect is to increase the blood pressure. This drug should be given early, as a routine, in all cases of pneumonia as soon as the diagnosis is made. Within twenty-four hours the patient should receive at least four drachms of the British Pharmacopeia tincture, or the equivalent in dried leaves from a reliable source. As evidence that an overdose of digitalis does no harm, two cases are cited in which the patients developed complete heart block and yet made uninterrupted recoveries. In cases in which there is a return of fever after a normal or nearly normal period, or in which there is severe chest pain at any stage, the physician has cause to suspect empyema. It is better then to aspirate, even a number of times, and find no fluid rather than to wait until one is sure. Alcohol should be avoided except in patients addicted to its use, because it is the one drug that is notorious for doing what we fear may happen—lowering the blood pressure. Distention is best treated by a diet containing an adequate protein ration. The modern typhoid diet is ideal; soft boiled eggs, scraped beef, jellies, junkets, or custards may be given at two-hour intervals.

LEGAL

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THE MEDICO-LEGAL ASPECTS OF DRUNKENNESS

Despite the Eighteenth Amendment and the Volstead Law, drunkenness is still with us; its presence, its manifestations and its effect are subjects repeatedly considered both by the medical profession and by the courts.

Both in the civil and in the criminal tribunals, the question of intent, motive and other operations of the mind are constantly the subject of investigation. Thus, for example, the New York Penal Law provides that "no act committed by a person while in a state of voluntary intoxication, shall be deemed less criminal by reason of his having been in such condition. But whenever the actual existence of any particular purpose, motive, or intent is a necessary element to constitute a particular species or degree of crime, the jury may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive, or intent with which he committed the act." (Penal Law, Sec. 1220.)

In practically all of the more serious crimes, i. e., those known as mala in se, the question of intent is vitally involved. Thus, for example, murder in the first degree is defined as the killing of a human being "from a *deliberate and premeditated design* to effect the death of the person killed, or of another."

A person is guilty of larceny who with "intent to deprive or defraud the true owner of his property, . . . takes from the possession of the true owner . . . any money, personal property, etc."

And so on through the long category of the statutes defining criminal offenses, intent is found as a necessary ingredient of the crime.

Even in the minor crimes, i. e., those designated as malum prohibum, the question of intoxication frequently is involved. Thus, our Highway Law declares that "whoever operates a motor vehicle while in an intoxicated condition shall be guilty of a misdemeanor."

In civil transactions, too, the mental condition of the parties is a vital consideration. Thus, in determining whether or not a legal contract has been made, one of the essential inquiries is: was there a meeting of the minds? There could be no legal meeting of the minds unless the minds were in a condition to meet. This meeting involves or presupposes a voluntary and conscious act. Thus, if one party to an agreement secures the other's signature by means of first reducing him to a state of intoxication, there could not be in any legal sense a meeting of the minds.

In cases involving testamentary capacity, also the question of drunkenness is frequently involved. Thus, for example, it has been held that drunkenness in such a degree as to render a testator unconscious of what he is about, or less capable of resisting the influence of others, voids a will.

This discussion of the occasions when intoxication becomes the vital question in the courts might be expanded indefinitely. Enough has been said to prove its importance.

This inquiry naturally leads to the question: What is drunkenness? The Century Dictionary defines drunkenness as "the state of being drunk or overpowered by intoxicants." A less satisfactory definition is given in Bouvier's Law Dictionary as follows: "The condition of a man whose mind is affected by the immediate use of intoxicating drinks." This definition is unsatisfactory because of the indefinite meaning of the word "affected." A person's mind may be affected by the use of tobacco or tea or coffee. What is really meant by the word "drunkenness" is better set forth in the Corpus Juris definition, which defines it as any one of six conditions, as follows:

"Under the influence of intoxicating liquor *to such an extent as to have lost the normal control of one's bodily and mental faculties,* and, commonly, to evince a disposition to violence, quarrelsomeness, and bestiality;"

"Under the influence of intoxicating liquors *to the extent that they affect one's acts or conduct,* so that persons coming in contact with him could readily see and know that the intoxicating liquors were affecting him in that respect;"

"Under the influence of an intoxicant, especially an alcoholic liquor, *so that the use of the faculties is materially impaired;*"

"So far under the influence of intoxicating liquor that *one's passions are visibly excited or* his judgment impaired by the liquor;"

"The condition of a man whose mind is affected by the immediate use of intoxicating drinks;"

"The *result of excessive drinking of intoxicants,* . . ." (19 C. J. 791.)

When some years ago, the writer and his former partner, Mr. Whiteside, were engaged with the Hon. Elihu Root and the Hon. William D. Guthrie in the case of Hoffman Brewing Co. v. McElligott, which involved the validity of war-time prohibition, we evolved a definition of intoxication from a survey of all of the cases in this country. The definition which we then devised was accepted by the courts and was stated in these words:

"Drunkenness or intoxication is a materially abnormal mental or physical condition, manifesting itself in the loss of the ordinary control of the mental faculties or bodily functions to an appreciable or material extent."

Thus, to constitute drunkenness in the legal sense, the drinking of intoxicating liquors must result in a mental or physical condition which must be "materially abnormal." This condition must be such as to manifest itself "in the loss of the ordinary control of the mental faculties or bodily functions," and this loss of control must be to "an appreciable or material extent."

It is therefore, not sufficient that the mind or body must be "affected" by intoxicating liquors; the effect must result in a material or appreciable loss of mental or bodily functions.

Whether or not then, a person is drunk in the legal sense, involves a complicated question. In reality it is a scientific question, comprising the pathology of mental and bodily functions, an understanding of their normal condition, and an ability to differentiate between the normal and the abnormal. Despite the complicated character of this question, it has been uniformly held in this state that whether or not a person is drunk is a question upon which the testimony of a lay witness is competent.

In a very early case in the Court of Appeals, it was held that a lay witness might properly be asked what, in his judgment, was the condition of the prisoner as to sobriety. This question, said the court, "did not become incompetent by adding the words, 'in your judgment,' while the judgment was restricted to what the witness saw. A child six years old may answer whether a man (whom it has seen) was drunk or sober; it does not require science or opinion to answer the question, but observation merely; but the child could not, probably, describe the conduct of the man, so that, from its description, others could decide the question. Whether the person is drunk or sober, or how far he was affected by intoxication, is better determined by the direct answer of those who have seen him than by their description of his conduct." (People v. Eastwood, 14 N. Y. 566.)

This really presents an exception to the general requirement that opinions can only be given by experts. This exception was defined by the Court of Appeals in a more recent case as follows:

"'Opinions are also allowed in some cases where, from the nature of the matter under investigation, the facts cannot be adequately placed before the jury so as to impress their minds as they impress the mind of a competent, skilled observer, and where the facts cannot be stated or described in such language as will enable persons not eyewitnesses to form an accurate judgment in regard to them, and no better evidence than such opinions is attainable.' . . . 'Farmers may be permitted to give their opinions of the value of farms, and farm stock, and product; . . . witnesses may give their opinions on questions of identity, or whether a person *is under the influence of liquor,* and as to many other matters.'" (Felska v. N. Y. Central & Hudson River R. R. Co., 152 N. Y. 339, 344.)

But although lay opinion on this question is competent in the courts, this does not by any means imply that the opinion of an expert is incompetent. While a lay person from common knowledge may be allowed to give an opinion as to whether or not a person is drunk, far more valuable and convincing proof could be adduced through the testimony of a physician who had examined the person, his mental and bodily functions; and from his expert knowledge could thus draw a comparison between the normal and the abnormal; and upon the basis of this knowledge and examination, render an opinion that the mental and bodily functions of the person in question were abnormal to a material or appreciable extent, and that this abnormality had been caused by drinking liquor.

Experience shows that while lay persons are willing to testify as to the physical condition of a person and express an opinion as to the drunkenness of such person, physicians are hesitant and reluctant to give an expert opinion that a person was drunk, even after he has examined the person and observed the actions and conduct of such person.

We believe that the medical literature upon this subject is meager and scattered and not readily accessible to physicians. Thus, there should be, as we believe there are not, well accepted tests for the purpose of detecting the presence of alcohol in the body, as well as those for diagnosing abnormal mental states associated with alcohol. This much, we are informed, is generally accepted—that alcohol is absorbed into the blood and circulates as such, and is found in measurable quantities in the brain, liver, and other organs for several hours after it is swallowed; and its effects on the nervous system and mentality are characteristic and progressive in proportion to the amount of alcohol circulating in the body. What still remains to be done is the development of quantitative tests, both chemical and psychological, that will exactly express the correlations between the alcoholic content of the blood and the degree of the resulting mental abnormality.

Since scientific research has disclosed the conditions in ether anaesthesia and in carbon monoxide poisoning, it should succeed equally well in alcoholic poisoning. The tests at first may be difficult and intricate, and require expert investigators working with special apparatus; but the history of all such tests is not only that they are progressively simplified, but also that physicians learn their application and use them as soon as they are practical and reliable. One of the important contributions which medicine still has to make to the cause of justice, is a scientific test whereby a physician can diagnose the amount of alcohol in the body and the resulting mental abnormality of the patient.

FRACTURE OF ANKLE

In this action the plaintiff on September 8th sustained an injury to her left foot, and called the defendant as a physician to treat her. It is charged that he negligently and carelessly and through want of skill failed to set and treat the bones of the arch of plaintiff's foot and of the ankle; that the damage has been occasioned thereby consisting of severe inflammation of the injured part, ankylosis and improper formation of callus resulting in a permanent injury, and the plaintiff seeks in this action to recover damages for such injury.

On September 8th, when the defendant was called to attend the plaintiff, she gave him a history of having stepped from a trolley car on a railroad track and having turned her ankle. She complained of great pain and difficulty in walking. Upon examination, he found a badly swollen ankle and ecchymosis of both sides of the ankle. The patient was apparently suffering great pain, and the ankle was very tender. The patient, however, was oversensitive, and it was with great difficulty that any treatment could be rendered to her. Because of pain, swelling and ecchymosis presenting symptoms of fracture, the defendant applied a plaster cast to the plaintiff's foot on September 11th.

The defendant at various times advised the plaintiff to have an X-ray taken, but this she refused to do, stating that it was not necessary. Finally, after the defendant had advised the plaintiff that he would not proceed further with the treatment unless an X-ray was taken, she consented. The X-ray showed that there was a fracture of the lower end of the tibia with the fragments in good apposition.

When the patient was seen on September 13th, she complained of pain and discomfort, so that the defendant split the cast, examined the foot and ankle, but observed nothing unusual to cause the great discomfort the patient complained of. On September 26th, the cast was removed, the injured parts examined, and a light cast applied to assist locomotion. The defendant advised active and passive motion and massage for the injured parts. On October 9th, he arranged with a masseur to call upon the plaintiff and to give her the necessary manipulations.

Because of the disagreeableness and unreasonableness of the patient, the masseur requested that he be relieved from further attending the plaintiff, and he stated that she had refused to allow any treatment that would be of value. Manipulations were given by the masseur on October 9th, 10th, 11th and 12th, and because of the patient's conduct, the masseur discontinued attending her.

On October 13th, when the defendant physician called upon the plaintiff, she refused to allow him to examine or manipulate the foot. She also stated that someone at her place of employment doubted that her foot had been properly cared for, and that she was going to some other physician. When the defendant called upon her on October 16th, she advised him that the treatment of her foot was in the hands of another doctor. During the course of the defendant's treatment, the patient's foot was at no time deformed, there was no displacement of the bones that could in any way interfere with the function of the ankle, except the swelling that sometimes follows fractures of this nature. This patient insisted upon holding the foot extended, walked on her toes, and refused to exercise it, thereby tending toward permanent extension of the foot. Because of the patient's attitude and conduct, the defendant was unable to render any effective service, and was discharged from treatment of the plaintiff long before any permanently beneficial results were expected.

When this case came on for trial, the plaintiff submitted her evidence in support of her contentions, at the close of which the Court directed a verdict in favor of the defendant dismissing the complaint.

NEWS NOTES

SECOND DISTRICT BRANCH

The Second District Branch of the Medical Society of the State of New Yirk, composed of the four counties of Long Island, held its annual meeting on the evening of Wednesday, November 9, in the Chamber of Commerce Building, corner of Livingston and Court Streets, Brooklyn. The President of the Branch, Dr. Guy H. Turrell, presided, and over one hundred members were in attendance.

The details of the meeting had been arranged by a committee of which Dr. Thurston S. Welton, President of the Medical Society of the County of Kings, was chairman. The Committee sent out three programs and reminders to every member of the District Branch. The first one was a preliminary description written in conversational style, and was printed on page 1213 of the November first issue of the Journal. The second announcement was the official program which was distinctive from the usual form of notices of District Branch meetings. The third notice was a postal card reminder.

The program was carried out almost exactly as it was announced. The members sat down to a social supper promptly at seven o'clock. The addresses were begun at 8:45 instead of 8:30 as announced, simply because the members declined to tear themselves apart from conversational groups which, like agglutination tests, had shown that the members were susceptible to the ideals of the Medical Societies.

The program was entirely on organized medicine. First were reports of the activities of each of the four County Medical Societies on Long Island, and were given as follows:

"Suffolk County," Dr. W. H. Ross, Brentwood.

"Nassau County," Dr. Louis A. Van Kleek, Manhasset.

"Queens County," Dr. Francis G. Riley, Jamaica.

"Kings County," Dr. Thurston S. Welton, Brooklyn.

These reports were carefully prepared, and were short and concise. They are printed on page 1309 of the Scientific department of this Journal.

Dr. James E. Sadlier, President of the Medical Society of the State of New York, then addressed the meeting on "The Relation of the Medical Society of the State of New York to the Physicians of Long Island." His address was a fitting commentary on the aspirations and accomplishments of the four County Medical Societies on Long Island. It is printed on page 1312 of this Journal.

President Turrell, in introducing the next speaker, said that the program committee planned to have a speaker from an up-State society that was especially active in public health, and had chosen Cattaraugus County in the opposite end of the State from Long Island, and had invited the President of the County Medical Society, Dr. Joseph P. Garen, of Olean, to describe the relation of the physicians to the Cattaraugus County Department of Health, which is the first and only county department of health in New York State.

Dr. Garen held the close attention of his audience for an hour with his vivid descriptions. He said:

"The County Medical Societies of Long Island took up the practice of public health and civic medicine over ten years ago, and have carried on all forms of health work on their own initiative and with the assistance of lay organizations, all of which had accepted the leadership of the physicians. In contrast with this method a strong lay organization, the Milbank Fund, had come into Cattaraugus County and spent over $100,000 annually in conducting a county health department that should demonstrate how the impersonal methods of the department of health of a large city could be applied with efficiency to a rural county. The offer was made in 1922, and the general plan was accepted by the Cattaraugus County Medical Society in the expectation that the physicians of the County would be consulted in regard to all the plans for the work of the department, and that their advice should be given careful consideration.

"After the demonstration had continued for four years, the County Medical Society conducted a questionnaire which was answered by practically all the physicians of the County, regardless of membership in the County Medical Society. The result of the questionnaire was considered by the County Medical Society on August 4, 1927, and was printed on page 1041 of the September fifteenth issue of the New York State Journal of Medicine. The action of the Society was to the effect that a large majority of the physicians of Cattaraugus County felt that a large part of the demonstration had not been along practical lines, and that it should be discontinued. One ground for the unfavorable attitude of the physicians was that the managers and officials of the demonstration had given little attention to the physicians and local health officers of the County, while the physicians were firm in their belief that any program of county health work must have the active support of the physicians if it is to be successful.

"The physicians of Cattaraugus County had not rested with destructive criticism; they had expressed their opinion by the constructive suggestion that Cattaraugus County should have a health department to be conducted along the modest plan that had been outlined by Dr. Paul B. Brooks, Deputy State Commissioner of Health, as published on page 985 of the December first, 1926, issue of this JOURNAL. The County Society had also appointed a committee to devise a definite plan for a county health department and should present it to the Board of Supervisors of Cattaraugus County at its meeting on November fifteenth. (See page 1333.)

"The essential part of the plan is that the county health department shall be conducted and managed by the citizens of Cattaraugus County, and that the County Medical Society, representing the physicians of the County, and the local health officers, shall be the recognized advisors, and so far as is practical, the operating agency, of the department.

"One feature of the plan is that it provides for the acceptance of gifts and endowments to be managed and dispensed by an advisory committee composed of citizens of Cattaraugus County.

"Provision is also made for the recognition of the State Department of Health in conducting all public health work in the County."

In closing, Dr. Garen said:

"You physicians of Long Island must regognize the fact that your geographic situation makes you peculiarly well adapted for leadership in all phases of public health work. The influence of Kings County is felt through the whole Island, and you are all united through your Island-wide medical societies and your *Long Island Medical Journal*. Your County Societies have been engaged in public health work for at least ten or fifteen years, and when the lay organizations entered the field of public health, they found that your societies were already occupying the field, and that they had to assist the doctors rather than dominate them. Your program tonight demonstrates your leadership.

"In contrast to you, the Cattaraugus County Medical Society has hitherto permitted an outside agency composed of laymen to dominate the practice of public health; and now it is undertaking to do in fifteen weeks what it has taken you fifteen years to do. I assure you that we physicians of Cattaraugus County have noted your methods of public health work, and have taken them as our models."

POST GRADUATE INSTRUCTION

The Committee on Public Health and Medical Education announces that courses have been arranged for three counties in addition to those already noted in the JOURNAL.

Four lectures on Heart Diseases have been given in Herkimer in the North Washington Street School Building on Thursdays at 3:30 o'clock, as follows:

October 20th: Bacterial Endocarditis—I: Harris Levy, Professor of Medicine, Syracuse University.

October 27th: Arythmia—Recognition and Treatment, Dr. Clayton W. Greene, Associate Professor of Medicine, University of Buffalo.

November 3rd: Valvular Lesions and Myocarditis—Dr. John H. Wyckoff, Associate Professor of Medicine, University of New York.

November 10th: Hypertension, including blood chemistry, blood pressure and treatment, Dr. Wm. McCann, Professor of Medicine, University of Rochester.

A series of six lectures have been given at Lyons, on Friday afternoons at 3:30 o'clock, as follows:

October 14th: Preventive Medicine—Dr. O. W. H. Mitchell, Professor of Bacteriology, Hygiene and Sanitation, Syracuse University.

October 21st: Gastro-Enterology, Dr. A. H. Aaron, Professor of Medicine, University of Buffalo.

October 28th: Physical Diagnosis (Lungs and Heart), Dr. E. C. Reiffenstein, Professor of Clinical Medicine, Syracuse University.

November 4th: Obstetrics, Dr. Henry Schoeneck, Professor of Obstetrics, Syracuse University.

November 11th: Sinuses and the Ear, Dr. E. J. O'Connor, Assistant Professor Otolaryngology, Syracuse University.

November 18th: Eye, Dr. David Gillette, Professor Ophthalmology, Syracuse University.

The announcement of these two courses have been in the form of News Sheets sent to the newspapers of the two counties, and explaining the objects of the lectures. They are admirably designed for the instruction of the public regarding the measures taken by physicians to keep their knowledge up to date.

Clinton County has announced a course of lectures by Dr. Harris A. Houghton, similar to those given by Dr. Houghton in Amsterdam, Montgomery County, in 1926, and published in the August fifteenth, 1926, issue of this JOURNAL.

THOMAS P. FARMER, *Chairman.*

CONFERENCE OF STATE SECRETARIES AND EDITORS

The annual conference of the Secretaries of State Medical Societies and Editors of State Journals was held on November 18th and 19th in Chicago, Illinois, under the auspices of the American Medical Association. This meeting accords those who are most intimately concerned with the field work of the State Societies the opportunity to meet their brethren from other States and to discuss their mutual problems both officially and informally. The attendance from the several states was as follows:

Secretaries	39
Editors	11
Boards of Trustees	9
Other Officers	14
Total	73

The general officials of the A. M. A. and the heads of its bureaus were also present, and showed the visitors every possible courtesy. All those attending the conference were guests of the A. M. A. at a noon luncheon in the Hotel Virginia.

The meeting was opened at 10:20 o'clock on Friday, November 18, by Dr. Olin West, general manager of the American Medical Association, who asked the doctors to choose a presiding officer; and Dr. A. T. McCormack of Louisville, Secretary of the Kentucky State Medical Association was elected. Dr. McCormack, who is the son of one of the leaders who planned the modern organization of the A. M. A., presided with a rare combination of humor and wisdom.

The first speaker was Dr. Jabez N. Jackson of Kansas City, President of the American Medical Association, who spoke on the recognition of the physician by the public, and said:

"While medical organizations have been reminding doctors of their duty to serve the people in all health matters, the time has come to remind the people of their duty to recognize the value of the services of the doctors. The medical education of the people generally is one of the great ideals which the A. M. A. is upholding."

Dr. W. C. Woodward, Executive Secretary of the Bureau of Legal Medicine and Legislation of the A. M. A., addressed the meeting on the Basic Science Law. He explained that this was the law intended to apply to all who aspired to study any legally recognized system of the healing art whether in regular medicine or any of the cults, including chiropractic. The basic sciences were anatomy, physiology, chemistry, bacteriology and pathology; and to this list two states added diagnosis.

The five states that had enacted basic science laws were Connecticut, Minnesota, Nebraska, Washington, and Wisconsin. The results of the administration of the laws had been generally satisfactory. It was not intended that the law should be promoted in those states which already have an excellent practice of medicine law. New York State, for example, requires every one who practices the healing art to pass an examination in not only the basic sciences, but also in medical branches.

Dr. Woodward said: "A law is a prescription given by the legislature to improve the welfare of the people, or to alleviate or cure the ills of the community. The basis for giving a prescription is knowledge of the condition of the patient. If the legislatures do not correctly diagnose the medical situation, it is not ready to draft a proper law. Moreover, after a law has been prescribed, it is of no effect unless it is properly administered."

There was considerable discussion of the laws relating to medical practice. Dr. O. S. Wightman, Editor-in-Chief of the New York State Journal of Medicine, said that he was also Chairman of the Grievance Committee established by the Medical Practice Act of 1925, and that he had found that for every illegal practitioner convicted ten left the State. Every illegal practitioner had taken in his sign calling himself a doctor.

Dr. D. S. Dougherty, Secretary of the Medical Society of the State of New York, said that physicians should not rest when they have secured a medical practice law. They must give their active aid in support of the law. If doctors cease their efforts, so will the representatives of the people, for the doctors set the people's standard in medicine and hygiene.

Dr. Dougherty also spoke of the need of a fund to enforce the law. New York derives the fund from an annual license fee of two dollars imposed on the doctors for annual registration. Doctors had opposed the fee at first on the ground that they were already giving valuable services to the people free; but now that the system is in operation they recognize the justice of the license fee that gives them an exclusive right to engage in a remunerative line of work.

The subject of interstate conferences was introduced by Dr. J. B. Morrison, Secretary of the Medical Society of New Jersey, who described the Tri-State Conferences held three times a year by the officers of the Medical Societies of New Jersey, Pennsylvania and New York. (See this Journal, November 1, 1927, page 1214.)

Dr. Earl Whedon, Secretary of the Wyoming State Medical Society, said that his society is planning to hold a joint meeting with the societies of Montana and Idaho next summer in the Yellowstone Park.

Dr. D. E. Sullivan, Secretary of the New

Hampshire Medical Society, described the New England conference which is composed of the elected officers of the medical societies of each of the six New England States, together with five members from each state elected by its House of Delegates. These members will meet twice a year to consider problems common to all the states. One of the greatest benefits will be the publication of a single Journal, probably to be called the New England Medical Journal, which should be the organ of the six state societies. Only three New England state societies, Maine, Massachusetts and Rhode Island, now publish their own Journals. These will be merged into one as soon as the Massachusetts organ, the *Boston Medical Journal*, can legally enter the agreement, it being under contract to continue its corporate name for a period of one hundred years, which expires on December 31 of next year.

The subject of the annual meeting of the State Society was presented in three parts:

1. The Program, by Dr. Holman Taylor, Secretary of the State Medical Association of Texas.
2. The Exhibits, by Dr. F. B. Stephenson, Secretary Colorado State Medical Society.
3. Observations of Several State Meetings, by Dr. Morris Fishbein, Editor of the Journal of the American Medical Association.

Dr. Taylor presented arguments in favor of a permanent committee on program in distinction from a committee appointed from year to year. He said that the Texas Society always had a general session every day of the annual meeting, in which subjects on economics and education and other society topics could be discussed. He said that the general session afforded the only opportunity for the free discussion of those topics which are of general interest to the entire body of physicians of the state.

Dr. Stephenson said there were two kinds of exhibits—the scientific and the commercial—both being shown by the annual meeting of the A. M. A. Colorado had tried the experiment of inviting each county society to put on a scientific exhibit on a particular subject, and all of the larger societies had responded. One arranged an exhibit on tularemia, and another illustrated the history of the discovery of the circulation of the blood. The plan not only produced an exhibit that was highly creditable, but it stimulated study by the local societies.

The management of commercial exhibits had sometimes been left to local committees of arrangements, and they were under the temptation to accept unethical advertisers in order to make the exhibit financially successful. It was better that the State Society should manage the commercial exhibit on an ethical basis.

One speaker said that his state limited the exhibitors to those who advertised in the State Journal.

The location of the exhibits had much to do with their success. It was best to put them where members had to pass on the way to the registration desk or meeting room.

Provision for publicity has a place on every program. Some societies require the speakers to supply abstracts of their addresses to be given to reporters of the daily newspapers.

Giving news of the proceedings to the daily press was an effective means of educating the people regarding the aims and accomplishments of the physicians.

Dr. McCormack said that the Woman's Auxiliary of Kentucky was collecting material for a historical exhibit to be given at the next State meeting.

Dr. Morris Fishbein described some of his observations at the meetings of twelve state societies which he had attended during the past two years.

One society which ran its sessions in competition with a golf meeting had only a handful of members to greet a nationally known guest.

Another society put on a number of different sub-meetings at the same time and none were much of a success.

Dr. Fishbein described the operation of the political machines of two societies, resulting in a stifling of all discussion and freedom of choice, and in dissatisfaction among the members.

Dr. Olin West said that as the State Medical Societies prospered, they gave necessary consideration to the employment of a fulltime secretary. He introduced Dr. Percy T. Philips, President of the California Medical Association, who described the form of incorporation which the state society was adopting in order to accept gifts of property, which would enable the society to employ fulltime officials.

The subject of the Free Clinic was introduced by Dr. Henry O. Reik, Editor of the *Journal of the Medical Society of New Jersey.* Dr. Reik reviewed the three principal forms of free clinics.

1. The hospital and dispensary; 2, the diagnostic clinic, and 3, the prenatal and children's clinics. He emphasized their good points and pointed out the proper lines for their management.

The discussion of Dr. Reik's paper was along the lines that are familiar to the members of the Medical Society of the State of New York, where graduate education of physicians, and children's diagnostic clinics are established facts.

Dr. J. H. Bunce, Secretary of the Georgia Medical Association, told of the difficulty of carrying medical service to the people in inaccessible parts of the State, and said that three men had qualified as midwives in a mountainous district and were giving excellent service where physicians and women midwives could not go. He also said that the railroads were giving special rates or even free transportation so that children may go to hospitals for needed operations.

Dr. T. E. Powers described the working of the Iowa law by which counties were requested to pay the expenses of transportation and operation for crippled children. He said that it had been extended to other conditions and had been abused by adults accompanying children and remaining with them for considerable periods.

One speaker objected to a statement that doctors must assist lay organizations in carrying out their health programs. The speaker said that it is the lay organizations that should do the assisting; while the doctors dominate the lay organizations and dictate their policies in free clinics and all their other activities.

The conference elicited a wealth of information and ideas which are here recorded from the point of view of their interest to the physicians of New York State. Of special importance are the records which other states show in activities which are contemplated or undertaken under the auspices of the Medical Society of the State of New York.

KINGS COUNTY MEDICAL SOCIETY

The November Bulletin of the Medical Society of the County of Kings contains an item which is of interest to physicians throughout the State of New York. The article is an emphatic denial of the story printed in the *Brooklyn Daily Eagle* on October 27, under the caption, "Medical Society Here Plans For Big Academy. Seeks Divorce from State Body, and $1,000,000 to Erect Building." The Bulletin says:

"The medical body seeking divorce in order to become independent, is one of those figments of the imagination that would have been corrected, if the *Eagle* had followed the proper and agreed upon form of procedure. The Press Reference Committee was not consulted about the article until after the paper had gone to press.

"A correction was agreed upon by the *Eagle* and the Chairman of the Press Reference Committee. It appeared on October 28th."

The Press Reference Committee referred to was formed as the result of a regular meeting of the Society held on March 18, 1924, at which the editors of the leading Brooklyn newspapers were the principal speakers. This meeting was reported in full in the October, 1924, issue of the *Long Island Medical Journal.* The Committee has done its part promptly and well, and it is to the credit of the *Brooklyn Daily Eagle* that in this case it at once printed the correction when the Committee called its attention to its error.

The corrected article quotes Dr. Frank D. Jennings, Chairman of the Board of Trustees of the Kings County Medical Society, regarding the plan to change the name of the Society and generally to broaden its scope of activities, as follows:

" 'It has no relation to the State Medical Society or to any differences that may have existed in the past.

" 'The Kings County Society has actually for years been carrying on the functions of an academy of medicine. It maintains a large public medical library, it has an active public health committee, it cooperates with the Brooklyn Chamber of Commerce in the Brooklyn Health Council, it offers in conjunction with the Long Island College Hospital courses in graduate education, in addition to giving in its own auditorium weekly lectures by the most eminent teachers to be found.

" 'These are properly functions of an academy of medicine, and it is recognition of this fact that has prompted the present movement to amend our corporate title.' "

The Bulletin continues:

"It is regrettable, in the haste of publication, that such a serious distortion of the facts occurred. The recommendation of the Council to the Society, not as yet acted upon, is that the corporate title be amended to include 'and the Academy of Medicine of Brooklyn'. That is merely recognition and affirmation of the fact that we are now an 'Academy of Medicine' by virtue of our various activities, a large library, an active Public Health Committee, graduate medical teaching, etc. It had no relation to the State Society. It is no novelty, having been done in Toledo and elsewhere."

SUFFOLK COUNTY

The Annual Meeting of the Suffolk County Medical Society was held on Thursday, October 27, 1927, with the President, Dr. Frank Overton, in the chair and the Secretary, Dr. E. P. Kolb, recording.

The weather was mild and balmy, and the veranda of the Club House of the Riverhead Golf Club made an ideal meeting place. The meeting was opened at 11:30 o'clock, and some business was transacted during the luncheon hour, which began at 1:20 o'clock. After the luncheon, a scientific session was held and at 3:15 o'clock the meeting adjourned. The attendance was thirty-two members, three visiting physicians, and eight public health nurses and social workers.

The greater part of the program consisted of reports on the activities of the Society, especially in the practice of public health and civic medicine. The Medical Society represents the doctors of Suffolk County, and the program of the meeting was designed to show the various ways in which the medical profession discharges its civic duties to the community. The family practice of medicine according to the highest standards, is a civic duty in whose promotion the Suffolk County Medical Society has been engaged for one hundred and twenty-one years. But in addition to their private practice, the physicians of Suffolk County take a leading interest in every phase of health work whose accomplishment requires community effort, such as hospital management, the work of official departments of health, the activities of the County Tuberculosis and Public Health Association, the work of the County Board of Child Welfare, and the education of the people in public health. The program included reports not only from the physicians, who were the leaders in the community activities, but also from the lay executives who were carrying on the non-medical details of health work. Every report had been prepared in writing for the sake of both brevity and clearness, and all were given within the allotted time with snap and animation. This part of the program was as follows:

The President's Report	Dr. Frank Overton
The Committee on Public Health	Dr. A. G. Terrell
The Committee on Children's Clinics	Dr. David MacDonell
The Committee on General Hospitals	Dr. W. H. Ross
Anti-Tuberculosis Work	Dr. E. P. Kolb

Reports of allied organizations were given as follows:

Anti-Tuberculosis Fund Work, Mrs. Mary Weaver Blanchard, R. N. Supervisor of County Nurses.

Official Public Health Work, Dr. M. D. Dickinson, District State Health Officer.

Children's Consultations, Miss M. Farquhar, R.N., District State Supervising Nurse.

The County Tuberculosis and Public Health Association, Dr. W. H. Ross.

Child Welfare Work, Miss Ruth Newman, Supervisor, County Board of Child Welfare.

While the County Medical Society meets only twice a year on account of the geographic distribution of its population, groups of doctors were meeting once or twice a month in connection with the general hospitals, one of which is located in each corner of the County. Reports from each group were given.

Dr. W. H. Ross reported that the group centering in the Southside Hospital at Bay Shore numbered about 40 doctors who met twice monthly, once at a staff meeting of the hospitals and again as the South Side Clinical Society. The success of the Society is due largely to its program, which consists of a social supper at seven o'clock, followed by a scientific session.

Dr. A. G. Terrell reported that the group centering in the Southampton hospital meets monthly at a staff meeting, and in addition, it holds several meetings which are both social and scientific.

Dr. C. C. Miles, reporting for the group centering in the Greenport hospital, said that the doctors meet monthly in the hospital as a Staff, and that each takes his turn in entertaining the others at a social dinner at which a scientific paper is usually presented.

Dr. W. P. Kortright reported that the Huntington Hospital group meets quarterly, and that attempts were being made to revive the Society which formerly met on one evening of each month.

The scientific part of the program consisted of a moving picture demonstration of the pathology of syphilis of the cardio-vascular system with special reference to aneurism of the aorta, by Dr. Orrin S. Wightman, of New York City, Editor-in-Chief of the NEW YORK STATE JOURNAL OF MEDICINE; and also of a brief report of an interesting case from each of the general hospitals of the County.

Dr. Wightman's moving pictures illustrated the progressive effects of syphilis, the leucocytosis, the fibrosis, the destruction of the muscular tissue of the heart and arteries, the dilation of the cavities of the blood tubes, and the formation of the pouches called aneurism. His pictures were concluded by the demonstration of an aneurism as large as a child's head obtained from a patient last year in the City Hospital on Welfare Island. The pictures showed the patient with a bulging pulsating tumor in the chest wall of the site of the aneurism. Then followed pictures of the tumor mass obtained on the death of the patient three days after his admission to the Hospital. The tumor consisted mostly of the aneurism fused with the heart and surrounding tissues. Its walls were over an inch thick, and the mystery was how the production of a loose clot and embolus was avoided.

Dr. Wightman said that the tumor illustrated the end result which often occurred in untreated syphilitic conditions; but by proper diagnosis and treatment, the condition could be stopped in its early stages.

Dr. Rodney E. Wyman, representing the Staff of the Southampton Hospital described a case of multiple fractures of the pelvis, and showed x-ray plates of the parts and described the methods used to hold the two public bones in apposition.

Dr. W. P. Kortright showed x-ray plates of cysts in the femur, tibia, and heel of a patient. The tumor had been diagnosed as benign and the patient's general health was good.

Dr. Hallock Luce, on behalf of the Staff of the Greenport Hospital, described a case of acute pancreatitis.

Officers for 1928 were elected as follows:

President, Dr. Frank S. Child, Port Jefferson; Vice-President, Dr. Edward R. Hildreth, Bay Shore; Secretary, Dr. Edwin P. Kolb, Holtsville; Treasurer, Dr. David H. Hallock, Southampton; Censors, Drs. David H. Schenck, Southampton; Paul Nugent, East Hampton; William A. Baker, Islip.

New members elected were:

Dr. Jacob Dranitzke, Patchogue.

Dr. Emil Edgar Falkenberg, Huntington.

Dr. Frank K. Edgett, Amityville.

Also Dr. Gordon Priestman, Kings Park, by transfer from St. Lawrence County.

FRANKLIN COUNTY

The regular annual meeting of the Franklin County Medical Society was held at the Elk's Club, Malone, N. Y., on October 26, 1927. The following members were present at the session: Dr. L. P. Sprague, President; Dr. G. F. Zimmerman, Secretary-Treasurer; Dr. W. N. MacArtney and Dr. F. F. Finney, censors. Members present: Drs. Tobin, Dolphin, Kissane, Wardner, Harrigan, Blacklett, Smith, Stickney, Stamatiades, Stoughton, Van Dyke, White and Rush.

Visitors present: Drs. James E. Sadlier, President, Medical Society of the State of New York, Poughkeepsie; Dr. Joseph S. Lawrence, Executive Officer, Medical Society of the State of New York, Albany; Dr. John A. Card, Vice-Speaker House of Delegates, Poughkeepsie; Dr. M. P. Warmuth, Philadelphia, Pa.; Dr. H. B. Kurtz, Cleveland, O.; Dr. S. E. Appell, Dover Plains, N. Y.; Dr. S. W. Sayer, District Sanitary Officer, Gouverneur, N. Y.; Dr. S. R. Allen, Champlain, N. Y.; Dr. Lyman G. Barton, Plattsburg; Dr. M. Taylor, Edwards; Dr. Samuel W. Close, Gouverneur; Dr. C. A. Northrup, Hermon.

In the morning a cancer clinic was held at the Alice Hyde Hospital under the direction of Dr. John E. White, who demonstrated the results of Glover's serum in cancer cases. This clinic was attended by physicians of Franklin and adjacent counties, and about thirty cases were shown.

Dinner was served at 1.30 P.M.

The business session opened at 2 P.M. Dr. L. P. Sprague, President, presiding.

Two applications for membership were presented and approved, Dr. C. McConnell, Hoganburg, N. Y., and Dr. Bruce T. Smith, Fort Covington, N. Y.

Dr. F. F. Finney submitted a verbal report on the progress of the examination of pre-school children. His report showed the inability of one health nurse to supervise the management of these examinations in the district. It was thereupon moved and seconded that the President draft a resolution to be presented to the Board of Supervisors with the purpose of appointing another health nurse for the county. Carried.

The following resolution was accordingly framed:

We, the members of the Franklin County Medical Society realize that one County nurse is inadequate for the needs of the county; that she is unable to do the necessary work, and we do hereby,

Resolve, that the Board of Supervisors of Franklin County provide another nurse to assist the present incumbent.

The following committee was named by the President to present the above resolution to the Board of Supervisors: Drs. J. E. White, P. F. Dolphin and R. G. Perkins.

It was then moved by Dr. Finney, and seconded by Dr. Dolphin, that the Committee on Examinations of pre-school children be retained and the work go on for another year. Carried.

Committee: Drs. F. F. Finney, Malone; C. C. Trembley, Saranac Lake; P. E. Stamatiades, Brushton.

Dr. Dolphin in behalf of the Committee appointed to confer with Judge E. C. Lawrence about fees for lunacy examinations, reported that Judge Lawrence had set a fee of $8 for examinations, and twenty cents mileage each way.

Following the business session the following papers were read:

1. The Necessity for Early Diagnosis in Cancer—Dr. R. G. Perkins, Malone.

This paper received very favorable mention by Dr. Sadlier and his associates.

2. The Activities of the Medical Society of the State of New York—Dr. James E. Sadlier, President of the Medical Society of the State of New York.

Dr. Sadlier in his able address strongly urged the physicians to impress upon their patients the importance of yearly physical examinations; to make universal the work which the Life Extension Institute can do only to a limited degree.

He also urged that each society should be a unit in making an intensive study in one or more lines of original research.

The subject of Public Health Relations was fully discussed and described in detail.

Dr. Sadlier finally urged that each society strive to secure in its membership every reputable physician possible.

Dr. J. S. Lawrence showed the importance of holding county meetings to discuss different phases of educational work. He claimed we do not hold enough meetings. The work of the Public Health Relations Committee was discussed, and at his suggestion the following committee was appointed by the President: Drs. MacArtney, Wardner, Kingston, Austin and Kissane.

Dr. J. A. Card, Vice-Speaker of the House of Delegates, followed Dr. Lawrence and spoke on the annual registration of physicians and urged all physicians to register immediately on receipt of their cards. He also urged the importance of periodic health examinations as recommended by Dr. Sadlier, and said, "There is no reason why we cannot make the examinations ourselves, instead of sending patients to the Life Extension Institute. Dr. Card's paper was discussed by Dr. Sayer, who stressed the importance of a Public Health Relations Committee.

Dr. M. P. Warmuth of Philadelphia, Pa., in his address gave the reasons why he became interested in Glover's serum, and enumerated many cases which had been improved or cured by the cancer serum treatment during the past five years.

Dr. H. B. Kurtz of Cleveland, Ohio, supplemented Dr. Warmuth's paper with a résumé of the results he had obtained in the use of Glover's serum over a period of five years.

Lantern slides of selected cancer cases were displayed.

The following officers were elected for 1928:

President, Dr. G. M. Abbott, Saranac Lake.

Vice-President, Dr. P. F. Dolphin, Malone.

Secretary-Treasurer, Dr. G. F. Zimmerman, Malone.

Censor for three years, Dr. J. Woods Price, Saranac Lake.

Delegate to State Society, Dr. C. C. Trembley, Saranac Lake; Alternate, Dr. L. P. Sprague, Chateaugay.

G. F. Zimmerman, M.D., *Secretary.*

QUEENS COUNTY MEDICAL SOCIETY

A regular meeting of the Medical Society of the County of Queens was held at the Queens Valley Golf Club on September 27th, 1927, at 8.30 P. M., Dr. Joseph S. Thomas in the chair. The minutes of the Outing Meeting held June 14th, at Harbor Inn, Rockaway Park, were approved as published.

The following names having been approved by the censors were presented for election to membership. On motion they were elected by one ballot cast by the secretary:

George C. Ames, M.D., 18402 89th Street, Hollis.

Jesse Badner, M.D., 14617 Hillside Avenue, Jamaica.

Louis W. Granirer, M.D., 8401 Boulevard, Rockaway Beach.

Kate Freeman Miller, M.D., 123 Alburtis Avenue, Corona.

James Vincent Rizzi, M.D., 9034 170th Street, Jamaica.

The scientific session opened with an address by Clarence J. Gamble, M.D., on "The Stethoscope in the Diagnosis of Heart Diseases." It was accompanied by a Demonstration of Heart Sounds and Heart Murmurs through a Western Electric Stethoscope and Public Address System installed by the Bell Telephone Laboratories.

Speaking of the electrical stethoscope, Dr. Gamble said, "One of the most difficult fields in medical instruction is the auscultatory portion of physical diagnosis. Text book descriptions of lung sounds as 'like the swish of wind in distant trees' and the murmurs as resembling 'the escaping steam in an apartment radiator' are the unsatisfactory means by which the printed page attempts to convey to the novice what he will hear in a patient. Medical schools find it difficult to provide the necessary number of patients and variety of conditions to give the student the basis he should have for this diagnostic work.

"It is chiefly for the purpose of meeting this difficulty that the electrical stethoscope was designed by the Bell Telephone Laboratory.

Using the vacuum tube so well known in its radio applications, provision has been made for magnifying sounds coming from a patient's chest so that a class of as many as 500 may listen simultaneously. In this way, with a minimum of effort in securing patients to illustrate a particular condition and with a great saving in time both of the instructor and of the student, classes may now be given a better grounding in the art of physical diagnosis than has previously been possible.

"As usually used the electrical stethoscope is provided with a telephone receiver for each listener to which he connects the tube of his own stethoscope. For the demonstration at the meeting of the Queens County Medical Society, the electrical public address system, also developed by the Bell Telephone Laboratories, is used for additional magnification. The combination of the two makes possible an increase in power of the vibrations of the patient's chest 1,000,000,000,000 times, the resulting sounds issuing from two large horns six feet across, and filling the entire room with an accurate imitation of the heart and lung sounds.

"One advantage which the electrical stethoscope makes possible is the use of electrical filters. By turning a switch on the instrument, all the vibrations either above or below a chosen point may be eliminated. This makes it possible to decrease the intensity of the first and second sounds and brings out the murmurs in a way which can be appreciated much more readily by the novice. After the students have recognized the murmur and located its time, the filters may be cut out, allowing them to hear it in its usual proportions.

"The electrical stethoscope is now in use in more than fifteen of the medical schools of the country. Its designers are working on a small portable model which it is hoped will be of great use to the deaf physicians.

"A further improvement in the teaching of physical diagnosis which the electrical stethoscope has made possible is the production of phonograph records of heart and lung sounds. During the past winter a series of records of typical heart murmurs were produced at the Columbia Phonograph Laboratories. Experimental work is now being done with a special reproducer for these so that they may be heard through the physician's own stethoscope head piece. As soon as this is completed the records will be available for all physicians and medical students."

In the demonstration which followed, Dr. Gamble made use of a considerable number of heart cases from the cardiac clinic of St. John's Hospital, Long Island City. The heart sounds were of such magnitude that they were heard not only by the audience in the room, but throughout the entire floor of the club building in which the demonstration was made.

Dr. J. A. Smith of Elmhurst, Secretary of the American Heart Association, addressed the meeting on the Motion Picture Demonstration of the American Heart Association, "The Valves of the Heart in Action," following which the pictures were exhibited.

At the close of the meeting a vote of thanks was passed to the speakers, Drs. Gamble and Smith, for their entertaining and instructive presentations and to Dr. Prest and the Queensboro Tuberculosis and Health Association for their arrangement of the program of the evening.

E. E. Smith, *Secretary.*

REGISTRATION OF PHYSICIANS

The application cards for the registration of physicians were mailed in September with the expectation that all of them would be filled out and returned before the first of January. For a time they came in rapidly, but lately they have been coming in much more slowly. We have received only 10,000 applications out of a total of over 17,000. The first of January is not very far away and applications must come in much more rapidly than they are now coming in, if we are to register everyone on time. We have already issued and mailed about 9,000 registration certificates and are continuing to send out these certificates every day. We want to send the list to the printer as soon after the first of January as possible, but cannot do so unless the physicians of the State cooperate so that all the applications will reach us before the first of the year.

We are trying to make registration a success with as little trouble to all parties concerned as possible. We welcome criticisms and suggestions, and hope that every physician who fails to receive his registration certificate within a reasonable time after his application, will let us know at once. We feel sure that with everyone cooperating to the best of his ability, an accurate and complete list of registered practicing physicians can be prepared and distributed.

Charles B. Heisler,
Assistant in Higher Education
State Department of Education.

CATTARAUGUS COUNTY

The Committee on Public Health and Public Relations of the Cattaraugus County Medical Society made the following report and recommendations on October 28, 1927, concerning a County Health Department:

Recommendation A

That at the Fall or Annual meeting of the Board of Supervisors of the County of Cattaraugus the following suggestions be formally presented by the Society to the Supervisors of Cattaraugus County:

Suggestion No. 1:

That, as the terms of office of the present members of the County Board of Health expire by termination or resignation, physicians be appointed to these positions, until a total of five physicians shall be reached; and it is further suggested as a part of the above that the physicians appointed shall be nominated for appointment by the Medical Society of Cattaraugus County, and shall be licensed and registered physicians, resident in the County. (Such a procedure is permitted by the State law governing county boards of health, the law merely providing that there shall be *at least* two physicians on the county board of health.)

Suggestion No. 2:

That there be constituted by the Board of Health of the County of Cattaraugus an ADVISORY COUNCIL, to serve without fees or other remuneration, with an unofficial status, and with the provisions that:

a. The membership of the ADVISORY COUNCIL shall be as follows:
   Ten physicians nominated by the county medical society.
   Two dentists nominated by the dental organization of the county.
   One registered nurse, active or retired, but not at the time of her appointment or afterward engaged in county public health work.
   One doctor of veterinary medicine, engaged in the private practice of his profession in the County.
   Two ex-officio members, viz., the president of the County Tuberculosis and Public Health Association, and the District State Health Officer supervising this County.

b. The duties of the advisory council shall be as follows:
   They shall assist and counsel the County Board of Health in the development of policies and programs. They shall lend support to the County Board of Health as indicated, and aid in the interpretation of its activities to the public.

c. At no time shall the County Board of Health be legally bound by the advice of the advisory council.

d. In the event that any fund, foundation, association, or other philanthropic organization shall signify its desire to disburse in this County any sum or sums of money for the advancement of public health or the demonstration of the advantages thereof, it shall be the function of the advisory council, following proper action by the Board of Supervisors and the Board of Health of the County, to act as the supervising agent in such disbursement or demonstration, and in the development and exercise of this function, the advisory council may be enlarged as to membership by the addition of the following:
   Two representatives of the Fund, Foundation, Association or philanthropic organization contributing the money.
   One representative of the Committee on Public Health of the Medical Society of the State of New York.
   One representative of the Department of Health of the State of New York.

Suggestion No. 3:

That the Board of Managers of the County Sanatorium be abolished, and their duties and functions be incorporated in those of the County Board of Health, if permitted and provided for by law.

Suggestion No. 4:

That the Board of Managers of the County Laboratory be abolished, and their functions and duties incorporated in those of the County Board of Health, if permitted and provided for by law.

Suggestion No. 5:

That, contingent upon acceptance by the County Board of Health of the plans outlined in Suggestion No. 2, the Board of Supervisors of the County of Cattaraugus appropriate for the ensuing year for the purposes of the County Board of Health, exclusive of the amount for the County Sanatorium, the sum of $18,000, and that the terms of the resolution shall request a similar amount in the form of State Aid, with a total budget for the County Board of Health of $36,000, as compared with a total for the present year of $56,000, and in connection herewith the following budget is presented:

Salaries

County Health Officer, full time	5,000	
Clerk-Stenographer	1,200	
5 field nurses @ $1,800	9,000	
1 sanitary inspector	1,800	17,000

RENTS, ETC.		
Rent, main offices	1,200	
Rent, district stations (to be denoted)	....	
Telephone, telegraph, etc.	300	
Postage, etc.	300	1,800
AUTO OPERATION		
Mileage on health officer's car, at 8 cents per mile, the car to be provided by the health officer, with upkeep, insurance, etc., to be carried by himself (10,000 miles allowed)	800	
Depreciation on the cars of the nurses and sanitary inspector, the cars to be owned by the individuals operating them, and to be paid for by the county at the rate of 1/36 of the value of the car as depreciation each month, 6 cars, total depreciation per year	1,300	
Mileage for 6 cars @ 5 cents per mile (10,000 miles per year per car)	3,000	5,100
SUPPLIES, ETC.		
Office supplies	1,500	1,500
Travel (out of County):		
For County Health Officer	150	
For 4 nurses to attend annual conference	200	350
LABORATORY		
Salary, bacteriologist	2,600	
Salary, clerk-assistant	1,200	
Salary, part-time director	900	
Telephone, etc.	250	
Supplies	1,200	
Special contingent fund	500	6,650
For fees and other expenses of infancy, maternity and child hygiene clinics	1,000	1.000
For fees and other expenses of venereal disease clinics	1,000	1,000
For fees and other expenses of tuberculosis clinics	500	500
General contingent fund	1,100	1,100
Total		36,000

One-half in the form of State aid.

Suggestion No. 6:

That the Board of Supervisors appoint a committee, or empower its Committee on Public Health to confer with the County Board of Health and the Advisory Council, as to the possibility of providing emergency stations or hospitals, for the proper care of those cases of difficult labor occurring at points in the county at times inaccessible to the regular hospitals.

Suggestion No. 7:

That the position of director of the County School Hygiene District be abolished, or if this is legally impossible at this time, that the appropriation therefor be made nominal.

Suggestion No. 8:

That, at the end of two years a formal hearing be held by the Board of Supervisors, as permitted and provided for by law, and that, if the County Board of Health be then considered unnecessary, it be abolished.

RECOMMENDATION B

That the actual details of the development of policies and programs in connection with the County health work in Cattaraugus County be left to the advisory council and the County Board of Health.

RECOMMENDATION C

That since it is the firm conviction of the Medical Society of the County of Cattaraugus that there are in Cattaraugus County local physicians qualified for the position of county health officer, the Board of Health of Cattaraugus County be hereby asked to use every means to obtain for Cattaraugus County a county health officer who shall be a local physician, with experience in preventive medicine, and with a practical knowledge acquired through private practice in Cattaraugus County.

MEDICAL WARES

LOOSE LEAF REFERENCE BOOKS

A physician keeps his professional knowledge up to date from three sources:

1. From oral instruction.
2. From medical periodicals
3. From text-books.

Oral instruction by means of formal lectures or informal conversations is still the most widely used of all methods of imparting or getting information. It is also the most efficient for it permits the teacher to utilize the latest information on his subjects. The printed page soon grows old and a text-book on science needs revision by the time it is on the market. A physician hesitates to pay twenty-five dollars for a text-book of which a new edition appears every two or three years; he prefers to spend his money on lecture courses and on visits to clinics where he can talk directly with his teacher and ask him questions face to face.

A text-book on a scientific subject is based on fundamental facts which remain unchanged amid new discoveries. When it is revised, only about five per cent of the old matter is changed, and five per cent of new matter is added; while ninety per cent of the book remains unchanged. If the permanent matter of a text-book could be retained and the revisions could be inserted in their proper places, a great economic gain would result, besides the satisfaction which the owner feels in knowing that his book always contains the latest information.

The loose leaf system is the solution of the problem of keeping a text-book up to date. A subscriber to the system receives the latest complete volumes; and every six months afterward he receives new leaves to be inserted in place of those to be removed. The new leaves are numbered to correspond with the old ones, and the text is made to read continuously with that of the older leaves.

Much research and experimenting was required in order to devise a binder that was satisfactory; but loose leaf books are now made which are flexible and which open as flat as those bound in the ordinary way. Moreover the binders are easy to operate, and the old leaves readily stay in their places while the changes are being made.

An extensive editorial system is required to keep a loose leaf system up to date. A staff of research workers and editorial writers must be maintained and the authors must be on the watch to catch and verify every item of progress. The reputation of the publishers would be impaired if an important item were missed in the semi-annual distribution of new leaves. On the other hand, the premature announcement of an alleged discovery which turns out to be worthless or discredited will be quickly fatal to the reputation of the book. A physician buys a loose leaf system on the good reputation of both the publishers and the authors, with the assurance that the information which he receives is that of the current year.

Since the publishers maintain a staff of editors and authors, they are in a position to give replies to inquiries made by the owners of the books. This service is a stimulus to research, for questions are always inspiring to authors and research workers. Publishers profit by a knowledge of what their patrons want to know, and authors are led to explain points which otherwise might have been left obscure.

The question and answer service is of great value to the physician who is engaged in research work, or is preparing a paper for the instruction of his colleagues. It is the nearest approach to the oral method of imparting instruction with its personal contact with noted teachers.

The loose leaf system is peculiarly well adapted to text-books embodying encyclopedic knowledge in medicine, surgery, public health, and other branches of medical practice. Such complete articles have a special appeal to physicians, for the law presumes that every doctor treating a case shall make use of the latest information relating to the patient's disease, the price of a loose leaf system and the service of answers to questions is an insurance paid as a protection against a possible charge of neglect to apply every available procedure.

Physicians are also interested in loose leaf encyclopedias on general subjects. Every person who buys a large encyclopedia is soon urged to buy supplemental volumes in order to keep the information up to date. The loose leaf system enables the owner to insert the new matter in its proper place where it will be readily available.

Loose leaf Bibles are also published for the benefit of preachers and research workers who wish to insert information regarding particular chapters and verses.

THE DAILY PRESS

ACCEPTANCE OF MEDICAL ADVICE

Responsibility for a failure to cure lies with the patient or his family quite as often as with the doctor. If the prescription of the doctor is not followed, he cannot effect a cure. Inability as often as unwillingness accounts for failure to take a doctor's advice.

A great variety of conditions prevent a patient from profiting by medical advice. There are poverty, and a natural disposition of pessimism; there are laziness and over indulgence in the whims of the patient; and there are stinginess and greed and above all, ignorance. Any of these conditions may render futile the attempts of the best doctor to cure a patient.

The *New York Herald-Tribune* for November 14 contains the announcement of the Presbyterian Hospital of New York City, that an expert worker in the social service department will study the traits and inclinations of the patients in order to meet their peculiarities and adapt the treatment to the special conditions of the patients and their families. Miss Hamilton, the worker in charge of the service is quoted as saying:

"A study of a patient's traits and inclinations is necessary to establish the true state of his health. Her classification lists these modern social symptoms under the general heading of 'Symptomatic Behavior Attitudes or Reaction Modes.' This, in turn, is divided into two parts listing certain traits under 'Delinquency' and 'Unconstructive Personality Traits.' Bootlegging, perjury, non-support, forgery and arson are among the classifications in the 'delinquency' column.

"Extremes of characteristics, whether normally good or bad, are listed as 'Unconstructive Personality Traits.' They include such opposites as rebelliousness and resignation, dependence and hyper-independence, boasting and discouragement.

"The important part of the new medical social terminology is that now, for the first time, all these traits are actually named," said Miss Hamilton. "Now the social service worker knows what she is treating. Previously only broad generalizations were used in defining the findings of the social service worker, such as 'desertion,' 'old age' or 'mental illness.'

"The classification, according to its author, will aid not only an immediate diagnosis of a patient's social ills, but enable physicians and social service workers to correlate and study together their joint conclusions."

A variation of the same theory is that the absorption of toxins may produce a changed behavior. A case evolving that principle is reported in the *New York Herald-Tribune* for November 11, in which a young man accused of a hold-up was treated and his criminal tendencies were pronounced eradicated by two physicians. The account says that the medical testimony was that "sinus trouble had caused a partial cessation of circulation in Lyle's brain, causing criminal propensities. Several witnesses testified to the youth's character. Magistrate Croak then reduced bail and put the case over on condition that Lyle should undergo treatment and report to him at frequent intervals.

"After the sinus operation it was found that even more serious trouble required treatment. Subsequently Lyle submitted to the removal of his tonsils and five abscessed teeth, operation for intestinal trouble and treatment for abnormal blood pressure.

"Lawyers familiar with the case pointed out that Lyle's submission to the treatment was in itself an admission of guilt. It was also said that he has not denied committing the crime. In view of this it was felt that he could hardly escape being found guilty and receiving fifteen years under the Baumes law."

OPEN THE GARAGE DOORS

The *New York Sun* of November 10 is to be commended for printing the following warning against carbon monoxide poisoning in closed garages:

"Alongside the man who rocks the boat and his partner in foolhardiness who didn't know it was loaded, place must be made for the motor car operator who shuts the garage door and leaves the engine running. Deadly carbon monoxide gas pours from the exhaust pipe, and the result is inevitable.

"Cold weather favors the folly of those who refuse to take heed of this danger. They wish to tinker with the car and they think they will keep warm while they are at work. The result is that if they are lucky they expose themselves only to serious prostration. If they are not children of good fortune, death is the penalty they pay for their neglect of elementary caution.

"Not all the motorists guilty of this practice are novices. Some of them have had sufficient experience to teach them that the combination of an unventilated room and a running internal combustion engine is fatal. Carbon monoxide plays no favorites. It kills beginner and old timer impartially, and the closed garage door is its principal assistant."

UNFULFILLED PREDICTIONS

Medicine as well as politics has its unfulfilled predictions. Bruce Barton, who always speaks an encouraging word, says in the *Sunday Herald-Tribune* magazine of October 30:

"The first time I saw him he stood on the platform facing a great audience of college students. He was thirty-three years old. Stretched across the wall behind him was a big blue banner with this legend: 'The redemption of the world in this generation.'

"That multitude of ardent young spirits drank in his oratory eagerly. They were impatient with the bungling delays of middle-aged folks who had been conducting human affairs. They wanted no more delays, no fooling; they would get the world saved right away—now.

"Eighteen years have passed, and if the millennium has come, news of its arrival was not printed in the particular paper which I happen to read.

"I saw my friend the orator only a few days ago. He is fifty-one years old and head resident of a social settlement.

"He no longer talks about the redemption of the world in this generation. He is reconciled to the fact that human nature is pretty stubborn stuff, requiring a long period of complete purification.

"He is content to gather in the handicapped boys and girls of his slum neighborhood and give them a chance to grow strong in his gymnasium. He conducts evening classes where they learn at the close of their day's work. In a quiet way he holds up before them ideals of useful living.

"At fifty-one he has dropped the illusions which were so glorious at thirty-three. But the faith of thirty-three remains. He still knows the battle will be won, though victory be several hundred or a thousand years away, and loyally, obscurely, he fights the good fight.

"Youth, which knows no history, comes romping into the world determined upon immediate results. The headwaters of the river of life are fed with pure cold streams of melted snow from the mountain tops.

"The test comes not in youth but in the middle years, when the stream runs slower, when it is a little soiled by hard contact with the banks, when—being often diverted from its course to turn wheels and water farms—it plods more wearily to the sea.

"Happy are they who, traveling more slowly, yet travel with sturdy hearts; who, having lost the illusions of youth, still have kept the faith."

Dr. Barton might have made his friend say "No tuberculosis in 1930." He might also have said "Happy are the physicians who having lost the illusion of universal physical salvation, still keep the faith and travel on with sturdy hearts."

HAIR GRAFTING

Baldheaded people are fair marks for those who profess to have the secret of hair restoration; but, the actual demonstration of new hairs fixed to bald spots brings hordes of patients eager to part with their money. The following account in the *New York Sun* of November 13, although of humorous intent, yet is worth hundreds of dollars to the manager of a certain beauty parlor. The account begins:

"A little band of dauntless scientists gathered in a knot today and implanted the first hairs that have ever been affixed to a bald spot in America.

"Up in a rear room of a beauty salon with only about twenty reporters and photographers grouped around, the secret demonstration took place, with hardly anybody daring to believe his eyes.

"By Jove, doctor!" gasped a man from the most serious of all the metropolitan dailies, "you've done it! Accept my congratulations."

The story ends with an account of the operation and says:

"Eighteen years ago he first covered a Norwegian scalp, but not sufficiently to satisfy him, according to his son, and he has been working at it ever since. Gradually he got better, and now he can make a completely bald man thoroughly hirsute in three months, two hairs at a time.

"At this rate the occupants of the first four rows at the Follies would be covered up in about thirty years, provided the doctor reached them before they died.

"By the way, the operation is performed by fixing two root ends of hair into a gold ring, pressing the hair through a hollow ring down the hair canal and removing the needle. The gold ring and the hair remain. The hair does not grow, fall out, turn white or whistle."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

A Text-Book of Physiology. For Medical Students and Physicians. By William H. Howell, Ph.D., M.D. 10th Edition, revised. Octavo of 1081 pages, with 308 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $6.50.

Applied Biochemistry. By Withrow Morse, Ph.D. 2nd Edition, revised. Octavo of 988 pages, with 272 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $7.00.

Insurability: Prognosis and Selection. Life—Health—Accident. A Treatise on Various Factors that Permit a Forecast of Health and Longevity Selection of Risk for Insurance Appraisal of Claim for Indemnity. By H. W. Dingman, M.D. Chicago and New York, The Spectator Company, 1927. 706 pages, 8vo. Cloth, $15.00.

Treatment of Venereal Disease in General Practice. By E. T. Burke, D.S.O., M.B. 12mo of 162 pages, illustrated. New York, Oxford University Press, 1927. Cloth, $1.75.

The Diagnosis of Pancreatic Disease. By Robert Coope, M.D. 12mo of 112 pages. London and New York, Oxford University Press, 1927. Cloth, $1.50. (Oxford Medical Publications.)

Everywoman a Nurse. Health and Nursing Notes for the Use of Nursing Societies, Technical School Classes, Red Cross and Ambulance Associations, etc., and in the Home. By Edith Newsome, S.R.N., 12mo of 204 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $1.25.

The Ear, Nose, and Throat in General Practice. An Informal Guide to the Main Principles. By D. A. Crow, M.B., Ch.B. Octavo of 150 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $3.25. (Oxford Medical Publications.)

Healthy Growth. A Study of the Relation between the Mental and Physical Development of Adolescent Boys in a Public Day School. Ay Alfred A. Mumford, M.D. Octavo of 348 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $5.00. (Oxford Medical Publications.)

The Essentials of Otology. By George Birmingham McAuliffe, A.B., M.D. Octavo of 177 pages, illustrated. New York, Oxford University Press, 1927. Cloth, $4.00. (Oxford Medical Publications.)

The Tongue and Its Diseases. By Duncan C. L. Fitzwilliams, C.M.G., M.D. Octavo of 505 pages, illustrated. London and New York, Oxford University Press, 1927. Cloth, $11.00. (Oxford Medical Publications.)

Editorial Silence. The Third Era in Journalism. By Robert T. Morris. 12mo of 256 pages. Boston, Mass., The Stratford Company, 1927. Cloth, $2.50.

Practical Bacteriology, Blood Work and Animal Parasitology Including Bacteriological Keys, Zoological Tables and Explanatory Clinical Notes. A Compendium for Internists. By E. R. Stitt, A.B., Ph.G., M.D. 8th Edition, revised. 12mo of 837 pages, illustrated. Philadelphia, P. Blakiston's Son & Company, 1927. Cloth, $6.00.

Getting Well and Staying Well. A Book for Tuberculous Patients, Public Health Nurses, and Doctors. By John Potts, M.D. Octavo of 223 pages. St. Louis, The C. V. Mosby Company, 1927. Cloth, $2.00.

Minor Surgery. By Arthur E. Hertzler, M.D., and Victor E. Chesky, A.B., M.D. Octavo of 568 pages, with 438 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $10.00.

Clinical Case-Taking. Supplement to Methods in Medicine. By George R. Herrmann, M.D. Octavo of 90 pages. The C. V. Mosby Company, 1927. Cloth, $1.50.

Emergencies of a General Practice. By the late Nathan Clark Morse, A.B., M.D. Revised and rewritten by Amos Watson Colcord, M.D. 2nd Edition. Octavo of 541 pages, illustrated. St. Louis, The C. V. Mosby Company, 1927. Cloth, $10.00.

Gonococcal Infection in the Male. By Abr. L. Wolbarst, M.D. Octavo of 237 pages, with 89 illustrations. St. Louis, The C. V. Mosby Company, 1927. Cloth, $5.50.

International Clinics. Edited by Henry W. Cattell, A.M., M.D., Thirty-seventh Series, Volume III. Octavo of 311 pages, with illustrations. Philadelphia and London, J. B. Lippincott Company, 1927.

Surgical Clinics of North America. Vol. 7, No. 4. August, 1927. (The Brooklyn Hospital Number.) Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, $16.00 net; paper, $12.00 net.

Affections of the Stomach. By Burrill B. Crohn, M.D. Octavo of 902 pages, with 361 illustrations. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $10.00.

Evolution of Preventive Medicine. By Sir Arthur Newsholme, K.C.B., M.D. 12mo of 226 pages. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $3.00.

Anatomical, Phylogenetical and Clinical Studies on the Central Nervous System. By B. Brouwer. Octavo of 67 pages, illustrated. Baltimore, The Williams and Wilkins Company, 1927. Cloth, $2.50.

Urography. By William F. Braasch, B.S., M.D. 2nd Edition, revised. Octavo of 480 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1927. Cloth, $13.00.

Diseases of the Skin. A Manual for Students and Practitioners. By Robert W. MacKenna, M.A., M.D. 2nd Edition, revised. Octavo of 452 pages, with 143 illustrations. Baltimore, Md., The Williams & Wilkins Company, 1927. Cloth, $7.50.

Modern Aspects of the Diagnosis, Classification and Treatment of Tuberculosis. By J. Arthur Myers. Octavo of 271 pages, illustrated. Baltimore, The Williams & Wilkins Company, 1927. Cloth, $5.50.

Rebuilding the Child. A Study in Malnutrition. By Frank Howard Richardson, A.B., M.D., 12mo of 319 pages, illustrated. New York, G. P. Putnam's Sons, 1927. Cloth, $2.00.

BOOK REVIEWS

Röntgen Rays in Dermatology. A Handbook for Practitioners and Students. By L. Arzt, M.D., and H. Fuhs, M.D. Octavo of 202 pages, illustrated. New York, William Wood and Company, 1927. Cloth, $6.00.

The dermatologist of today who is not conversant with the technique of therapeutic radiation and prepared to apply it in his office denies to many of his patients one of the most efficient remedies, and, in many instances, stands between his patients and their welfare. McKee, in his splendid work, pointed out that there were practically four score conditions or diseases of the skin wherein radiation might be applied with benefit. In the book at hand the authors have drawn on their long and varied experience to instruct the reader in the proper application of radiation in a majority of the conditions which Dr. McKee enumerated. In practically all of their treatments filters of aluminum of varying thickness are advised and their reasons for so doing seem logical and proper. The first chapters deal with the physics of X-rays, dosage and the methods of exposure; the remaining chapters with the application and dosage of individual diseases. An appendix is added for quick reference and presents the list of diseases of the skin in which radiation is applicable in alphabetical order. We are indebted to the translator and publisher in making available to English speaking physicians the technique and experience of our German colleagues. N. T. Beers.

International Clinics. Edited by Henry W. Cattell, A.M., M.D. Thirty-seventh Series, Volume 1. Octavo of 304 pages, illustrated. Philadelphia and London, J. B. Lippincott Company, 1927.

This issue opens with an article on diabetes mellitus by Dr. Barker. Much of the old data concerning diabetes is presented, and a considerable review of the literature of today is mentioned. When Dr. Barker comes to the dietetic treatment of the disease he sidesteps the problem, and refers to Dr. Joslin's book. Such articles could be made of infinitely more value to the practitioner if the authors devoted less time to things well known and more to the less well known. Few physicians know how to manage the diet of such patients. So much attention is given to things of second importance in this article that things of first importance are passed over quickly. Diathermy is discussed at good length, as well as the venereal disease problem as a whole. This number contains many articles of interest and concludes with a review of the progress of medicine in 1926, which is decidedly worthwhile. J. Arthur Buchanan.

Segregation and Autogamy in Bacteria. A Contribution to Cellular Biology. By F. H. Stewart, M.A., D.Sc., M.D. Octavo of 104 pages, illustrated. London, Adlard and Son, Ltd., 1927. Boards, 7s. 6d. Net.

The author's subtitle "A contribution to cellular biology" is an indication of the content of this work. It is a painstaking, minute study in advanced bacteriology and biology, summing up the work of previous observers, and the results of the author's research (based on over 10,000 cultures) to prove that bacteria pass through a life cycle with alternating phases of a sexual and sexual reproduction.

Bacterial variation and mutation, the author contends, are similar to those in higher plants and animals, and best explained by the Mendelian principles. On this premise, the author maintains that observations and experiments on the growth of bacterial colonies support the theory that bacteria go through a life cycle as in protozoa.

Isidor Cohn.

An Outline History of Ophthalmology. By Thomas Hall Shastid, A.M., M.D. Octavo of 34 pages. Southbridge, Massachusetts, American Optical Company, 1927. Cloth, retail price $1.25. Selling Agent: George Wahr, Ann Arbor, Michigan.

It does not seem possible that anyone would be willing to continue long at his life's work without some knowledge of the history of its progress. Indeed, it would seem well nigh impossible that anyone can practice ophthalmology intelligently without at least enough of the romance of the development of the science to supply perspective to his work. "An Outline History of Ophthalmology"—by Thomas Shastid—certainly supplies a need. It will, doubtless, arouse some of the latent interest which only needs a moderate stimulation.

The Outline History is particularly valuable because it appeals to the romantic. Few of us look back on our school studies in history because it meant to us the amassing of a great amount of more or less correlated facts in their chronological order. Perhaps such a training has a very definite value, but the impressions gained are often poorly retained because they lack color. After all, the general impression is all that we can expect to keep. If we realize that such and such a period is represented by a high degree of culture and that this was followed by a period of the worst sort of chaos—if we can form in our minds a reason for this often followed sequence, we have something much more useful than to remember that Pope Leo X wore a concave pair of spectacle lenses in 1517.

A few high lights are very attractively presented. Who, for instance, would not be interested in "Babbage, the Unfortunate," Helmholtz, etc.?

Our final impression of the whole outline is a particularly satisfactory one and it is continually obvious that ophthalmological progress only began as it has continued, through the efforts of the physician alone.

John N. Evans.

Practical Materia Medica and Prescription Writing. By Oscar W. Bethea, M.D., Ph.G. Fourth revised edition. Octavo of 498 pages, with illustrations. Philadelphia, F. A. Davis Company, 1926. Cloth, $4.50.

This valuable book is completely revised and conforms with the standards of the U. S. P. X.

Part I deals with Materia Medica, giving the physician those essentials that are particularly vital to him regarding the drugs now employed and disregarding those that are no longer used.

Part II takes up the subject of Prescription Writing from all angles, is complete in every detail, and treats of Medical Latin, Choice of Vehicles, Percentage Solutions, Saturated Solutions, and many other topics necessary for the prescriber to know.

Part III, illustrated, giving the incorrect and correct forms of prescription writing, and showing not only the many pitfalls but the way to write formulae of sound therapeutic merit. This is one of the most practical books on this subject and well worth reading. S. F.

Manual of Medicine. By A. S. Woodwark, C.M.G., Third Edition. 12mo of 523 pages. London and New York, Oxford University Press [1927]. Cloth, 4.75. (Oxford Medical Publications.)

In this volume there is a large amount of valuable knowledge put down in a very orderly and concise manner. Each system is taken up separately, and the more important points are indicated by large type.

The treatment is put down in one, two, three order and embodies all the modern accepted ideas. We can heartily recommend this latest revision. Kenneth MacInnes.

OUR NEIGHBORS

ZINC STEARATE BABY POWDER

The danger of fatal pneumonia following the inhalation of baby powder containing zinc stearate is discussed in the September Journal of the Medical Association of Georgia in an article by Dr. L. H. Goldsmith of Atlanta. The *New York State Journal of Medicine* carried an editorial warning against baby powders in the August 15th issue.

The principal dangerous constituent in baby powder is zinc stearate, which acts mechanically and not chemically. Its particles are extremely small and light and tenacious, and enter the lungs readily, and then cause a swelling of the mucous membrane and asphyxia. Dr. Goldsmith says in his article:

"One similarity in practically all cases, is the manner of the beginning of the onset. The baby is playing on the bed, or the floor, and is given the powder can to play with. On account of the powder being very porous and fluffy, it is necessary to have large perforations in the top. The baby attempts to put the open top in the mouth and receives a shower of powder in the mouth and nose. Sneezing and coughing is followed by crying, all of which tends to aspirate the substance deeper into the trachea and lungs.

"The diagnosis depends primarily upon the history. If there is the usual story of the baby having had the powder can for a toy, with subsequent coughing, sneezing and presence of powder on the face and in the mouth, the diagnosis is evident."

The subject is of so much importance that a committee was appointed by the American Medical Association to study the problem. The committee made the following recommendations:

"First, that all manufacturers of zinc stearate powders for infants be requested to use a self-closing container, and to place a uniform caution label on the container. Second, that its use as a dusting powder for infants be discouraged by the medical profession, because of lack of therapeutic evidence of its value."

The suggestion was made that the containers of zinc stearate powder have a self-closing top, an unattractive color, and a warning label. The article says:

"Usually the mother will give the child anything to play with if it is crying. The bright top attracts him and he will inhale the zinc stearate powder with, as a rule, very serious results. If we can discourage the use of the zinc stearate powder, we will do a very great deal. If we will try to instruct the mothers that they insist on a proper label on zinc stearate, it will do good. I am sure the committee will discourage the use of it. We cannot prevent the manufacturer of it, but we can advise the mother of the danger and in this way accomplish a good deal."

The article said that the manufacturers were approached by the A. M. A. committee but did nothing about adopting a safety stopper. On the contrary, the makers of toilet powders used billboard advertising pictures showing babies pouring the powder over their bodies. While the dangerous constituent is stearate of zinc, yet mothers do not know what is in toilet powders, and so they should be warned against letting babies play with any toilet powder. Doctors also have a responsibility to warn mothers.

PRENATAL PROBLEMS

The following quotations regarding prenatal problems are taken from an article by Dr. Paul Appleton of Providence in the November issue of the *Rhode Island Medical Journal:*

"First, let us consider the mental side of the patient. She comes to us not as a test tube to a laboratory, but as an individual. She must be guided and treated as an individual and not as a hypothetical case. She has some real misinformation. She has many questions uncertain in her mind. She has fear. These matters must be sought out and cleared up—all of which takes time and unceasing patience. It is well worth it, and will help tremendously in our management of the case.

"Get interested in the patient's life, her medical and social history, her ambitions, her ideals, and her attitude towards prospective motherhood. Emphasize her loyalties. Minimize her distrusts. Take away her burdens of worry and anxiety, and imbue her with optimism. She cares little for the diplomas on your wall. She knows little of your training, but she absorbs your personality, your sympathy and your kindly guidance. She can be led into an attitude of co-operative

(*Continued on page* 1342—*adv. xvi*)

Roentgenographic Evidence Confirms the Antirachitic Potency of

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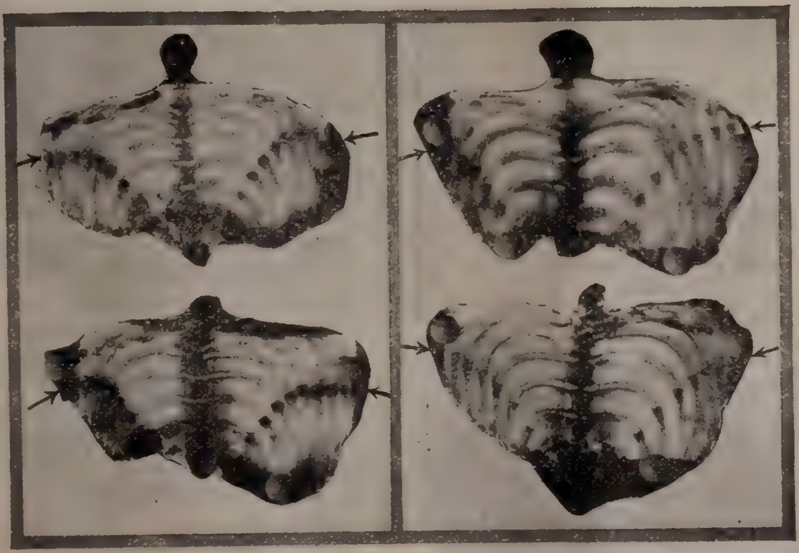

Costochrondral junctions of rats receiving Non-Activated Dryco.

Costochrondral junctions of rats receiving Activated Dryco

DRYCO ACTIVATED is the consummation of four years of exhaustive research in the field of nutritional chemistry, embodies the usual high qualities of merit possessed by DRYCO non activated, plus a greater prophylactic and therapeutic specificity for combating Infantile Rickets than has heretofore been made available in any natural milk food.

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(*Continued from page* 1340)

effort and her entire pregnancy and labor, too will be colored by this mental state. I know of no human experience where the doctrine of psycho-physical parallelism is more aptly demonstrated. One must of course be guarded in prognosis and one must interpret physical signs truthfully, but one may and should minimize groundless fears.

"One of the difficulties in handling these patients is the bridge-table advice that she gets from her neighbor. There are as many modern popular notions as there are old wives' tales, less superstitious in character but just as depressing to the introspective patient, and, let me emphasize, that pregnant women are more introspective than they will ever reveal. Search out these mental neoplasms that are causing anguish to the worrisome patient and extirpate them with a well chosen word of scientific fact to disprove, or radiate them with emanations of optimism. Patients may forget our skill, but they do not forget the milk of human kindness.

"I no longer advise patients for or against the maternity corset. The woman used to corsets will be more comfortable with one, but her sister unused to such restraint will be as comfortable without. A supporting binder or girdle will often produce some comfort.

"No less an authority than the late Dr Robert W. Lovett, the eminent orthopedic surgeon of Boston is my reason for advocating the high heeled shoe in pregnancy. By tending to throw the patient forward, thereby changing her centre of gravity, she is forced to stand and walk more erectly, throwing back her shoulders and preventing round shoulders and other postural spinal curvatures. This tends to prevent tilting of the pelvis and favors the gravitation of the presenting part to enter the patient's pelvis. These shoes also give better support to the arches of the foot, already overtaxed by the increasing weight of the patient. I commend this matter to your attention.

"Dietary restriction is ill advised in early pregnancy. The patient is usually very hungry and often has unusual food desires and appetites. I believe in a full free diet, and in satisfying those naïve cravings so often manifested on the basis that they represent a metabolic demand of one kind or another, too complicated often for the physiological chemist to interpret.

"History-taking is important, and care is essential. Detail to the point of exhaustion is ill advised. No patient is impressed by the game of 'Ask me another' in your office. It takes but a short time to get a skeleton history of the pertinent features bearing upon the problem of childbirth. The story of previous pregnancies, labors and puerperia is important as is that of gyneco-

(*Continued on page* 1343—*adv.* xvii)

(*Continued from page* 1342—*adv.* xvi)

logical experiences and trauma resulting in possible pelvic deformities.

"Psychic disturbance is to some degree always present in pregnancy. Not always a depression. Sometimes a definite euphoria. It is so well known that it deserves little comment save this interesting observation, that almost all psychic disturbance fades away gradually during the last three or four weeks, so that even minute evidences of psychic disturbance are absent at term. A psychosis that is present when the patient reaches term is to me an ominous sign and the patient will bear watching after delivery lest she develop a true puerperal insanity.

"The cardinal signs of pre-eclamptic toxemia are well known. Albuminuria, hypertension, headache, nausea, œdema, epigastric pain, and retinitis with choked disc. Many cases show only a few of these signs, and any one of them is significant and should not be overlooked. Toxemia going on to eclampsia may occur with an essentially normal urine. Of course it is rare, but dependence upon urinalysis alone is a dangerous practice.

"The examination of the patient should be made in an unhurried way, systematically with a clear idea as to what the findings mean, basing them upon a common sense interpretation of their relation to pregnancy or delivery. This examination should be thorough. The patient respects thoroughness for she appreciates that her attendant is more valuable to her in proportion to his fidelity in physical observation. Any pathological findings should be repeatedly watched for progress or results of treatment. Consultations help tremendously in interpreting dubious findings, and patients regard consultation as a strength, not a weakness, on the part of their attendant.

"Just a word about blood pressure. Of course, its regular observation is synonymous with good prenatal study. It is remarkable how little the blood pressure of the patient changes throughout her pregnancy, so that any marked rise in comparison to her observed normal, regardless of any arbitrary limit, should call for painstaking search for other symptoms of toxemia and their interpretation regarding the gravity of the situation and its treatment.

"Pelvimetry is perhaps the most important part of prenatal examination. It is an accurate vital check on one of the prime determining factors of the patient's mechanical ability to deliver. The measurement of pelvis is a good habit, easy to acquire and does not involve expensive or complicated apparatus. Why so many practitioners, otherwise careful, look upon this as a difficult or unnecessary procedure is hard to comprehend.

(*Continued on page* 1344—*adv.* xviii)

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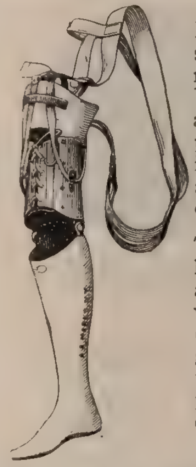

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(*Continued from page* 1343—*adv.* xvii)

There is nothing mysterious or ultrascientific about it. If one cannot measure pelves accurately, he is not doing his duty to the patient and should inform himself on this simple and vital matter. It is uncompromisingly essential that anyone undertaking an obstetric case should be thoroughly versed in this metric method and capable of interpreting the findings.

"The change in body weight of the pregnant patient is of some significance. During the first three months the weight is stationary or shows some loss, but during the last six months the patient gains about a pound a week. There is a good deal of scientific observation to support the contention that excessive gain in weight is almost a sure sign of toxemia, probably expressed as occult œdema. Another interesting point, and this has been frequently borne out in my own experience, is that in the last three or four days of pregnancy, instead of a gradual increase there is a sudden change to a loss of weight amounting to about a pound daily. Many patients today possess bathroom scales of considerable accuracy, and where these are available one can, with the cooperation of the patient, keep a daily weight chart. When the peak has been reached and a sharp drop is noticed, the prophecy that labor is at hand is usually correct. There is a very valuable sign of impending labor.

"In conclusion, may I emphasize that when a patient goes into labor, there is nothing more satisfactory to the attendant than, having made a really careful study of the case from all angles, physical and psychological, he approaches the responsibility of her delivery with confidence and comfort? That confidence is contagious and is mirrored in the solace and equanimity of the patient as she faces her travail."

MEDICAL EDUCATION

Education of physicians is receiving serious consideration in New Jersey judging by the following editorial in the October issue of the *Journal of the State Medical Society*:

"At the annual meeting of our state society, more discussion was aroused by the educational program than by any other one subject. Concensus of opinion strongly favored the continuance and further development of that program, but effective results are not to be obtained by merely voting adoption of a resolution and provision of funds. Progress will be slow and satisfactory results will scarcely be attained if the devising and promotion of a plan is left entirely to any one individual. It is not strictly a one-man job, even if he were employed to devote himself to that task exclusively. There are a thousand and one things to be done; there are many different possible

(*Continued on page* 1345—*adv.* xix)

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ways of doing some of the things. The subjects to be presented are not of equal importance in every county; the needs and the interests of people living in factory communities may be utterly different from those of rural districts. The mode of presentation, the diplomatic approach, and the self-interest appeal may have to be varied in order to capture the artisans in one district and the farmers of another. While plans for a more comprehensive program are in process of formation, tell us what your community requires.

"Local needs and local states of mind, as well as local facilities for cooperation, must be considered, and we respectfully suggest that each county society shall provide some means of assistance in solving this educational problem. Whether you call it an educational, a public relations, or a welfare committee, matters little; the essential factor is that each component society should have a committee to advise about local needs and opportunities to assist in developing local campaigns and combining local influences, and to serve as contact agency between the society and the laity, not forgetting to utilize now as an intermediary in many instances the newly organized woman's auxiliary."

MEDICAL GUIDANCE

How may a lay person be able to select and secure competent medical advice and attendance?

How may he determine who are competent physicians? How can he be assured that the doctor's services will reflect present-day medical knowledge?

These questions are discussed editorially in the November issue of the *Journal of the Michigan State Medical Society* which says:

"One editor advised us that not a day passes but what his office receives several such telephone inquiries. It is a problem presenting itself most pressingly for solution. We must assume that leadership. That is the reason we are inviting the attention and consideration of our members in order that their opinions may be utilized to reach a right solution.

"One suggestion is receiving considerable thought — local and district Medical Guidance Bureaus, where individuals may obtain dependable advice as to whom they can consult. This suggestion has much merit, still it is fraught with several valid objections so that the administration of such a Bureau can not now be outlined as to principles, policies or limitations. It must be experimented with and its possibilities closely and carefully investigated. We understand the Wayne County Medical Society has created some such Bureau and the people of Detroit are accorded the opportunity of applying to this Bureau

(*Continued on page* 1346—*adv.* xx)

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CHESTER F. DURYEA, M.D.
DIRECTOR

(*Continued from page* 1344—*adv.* xix)

for medical guidance. We purpose keeping close touch with their experiences.

"Publicity as to what constitutes the qualifications of a dependable doctor in order that the lay person may ascertain whether their medical advisor is possessed of those general or special qualifications has also been suggested. This at once raises the question as to who shall certify to a doctor's qualifications and appraise his capabilities or limitations. Mere membership in his County and State Society or affiliation with a hospital staff is at present a rather unreliable classification. To be effective it is necessary that in some manner, jealousy and personalities be submerged, and qualifications and appraisals be intrusted to a board constituted from the membership. Such a board to be invested with quite arbitrary authority. In seeking to educate the public, medical society memberships may be well stressed as a fundamental requirement in judging a doctor's qualification and distinguishing between the fake, quack, charlatan or cult and the reputable doctor. We believe such a plan of public education is worthy, possesses merit and should be instituted. The public should be informed that the member of a County Medical Society has conformed to certain educational, legal and personal requirements and having done so he is entitled to confidence.

"In order to ascertain and observe the value of such public education our State Society has joined with the Wayne County Medical Society in causing a special list of its members to be published in the next issue of the Detroit telephone directory. Such a special listing of the members of the Wayne County Medical Society will be preceded by a statement to the public that these members are possessed of certain basic qualifications that certify to their professional attainments. Such a list will enable the layman to at least discriminate between the reputable men and the quack or cult.

"What the value of such a means of education will be cannot be fully stated. It has been deemed to possess sufficient merit to warrant a trial. Such a trial has been instituted in Detroit.

"Conditions of society have so changed that individuals can no longer depend upon the recommendations of a friend, employer, directory, lodge member or newspaper advertisements to whom he may best consult for his particular physical condition and have the assurance that he is in safe hands. The individual consequently is seeking for reliable medical guidance. We as a profession must create and make available an avenue through which he can secure that information. We solicit your recommendations so that your officers may formulate a policy."

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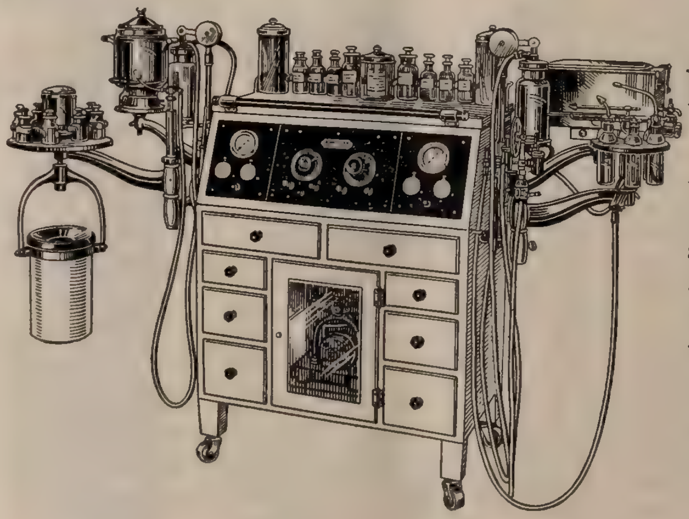

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UNSCIENTIFIC RADIO TALKS

The Journal of the American Medical Association for November 19, page 1786, contains the following information concerning radio health talks by quacks and fakers:

"Whatever else may be said of the quack and the faddist, they must be given credit for enterprise. The sheet anchor of the dispenser of pseudomedical buncombe, no less than of the out-and-out quack, is publicity. In the not very distant past, the quack and the faddist had the entrée—at advertising rates—to the majority of the newspapers of the country, and thus was made the point of contact between sucker and suckee. But, gradually public opinion forced at least the better class of newspapers to be more circumspect in the space that they sold to those who offered panaceas for human ailments, and today the majority of newspapers of wide circulation do not cater to the business of the medical faddist or the quack. With that avenue closed, it became necessary for these gentry to seek other fields of publicity, and it was but natural that they should turn to the latest wonder of modern science, wireless telephony — the radio. This field had three elements in its favor: first, its novelty; second, the fact that the spoken word is even more effective than the written word in carrying conviction; third, and most important, that the business of broadcasting is in its infancy and its code of ethics is naturally low. Broadcasting in the United States is a commercial venture. Generally speaking, the broadcasting station is out to sell time on the air, just as the newspaper is out to sell space on paper. It is natural, therefore, that these stations should look with favor on any commercial organization that is willing to pay the price the station asks for puffing its particular line of goods. Thus it is that we who are radio fans have our ears assailed almost nightly with some pseudomedical fad, or the exploitation of some crude piece of quackery. One of the earliest entrants into this field was the "Palmer School of Chiropractic," which has its own broadcasting station, WOC, at Davenport, Iowa, whose programs, unobjectionable in themselves keep before the radio listener the fact that there is an alleged educational institution devoted to the "science" of back-pushing. Then there is that enterprising quack who specializes on "rejuvenation" operations and who practices, apparently, without let or hindrance by the state authorities, from Milford, Kansas—John R. Brinkley, who owns and operates KFKB. Station WHT some months ago was broadcasting with great regularity the alleged virtues of a "patent medicine," Salicon, a preparation that the A. M. A. Laboratory found to be essentially a mixture of 3 grains of aspirin and 2 grains of magnesium carbonate. WJAZ, not so long since, was telling the radio world the marvels of that ingenious faker Professor Scholder, who professes to grow hair on bald heads, but who was unable to differentiate dyed twine from human hair. Over KTNT of Muscatine, Iowa, comes the story of the "Tangley Institute," which has a sure-fire cure for varicose veins, the invention, it appears, of one Dr. Charles L. Barewald of Davenport. WJBT of Chicago has described, via the ether, the marvels and virtues of the magic horse collar, the "I-on-a-co," of quack Wilshire. The Voice of Labor—WCFL — permits Dr. Percy Lemon Clark of Chicago, "a world authority on dietetics and food combinations," to broadcast health misinformation. Clark operates a "Health School" on "Sanatology" and tells the world that "acidosis and toxicosis are the two basic causes of all disease. Over this same station — WCFL — comes also the "Restoro," a base imitation of Wilshire's magic horse collar, and possessing as much therapeutic value as an empty tomato can with a string tied to it.

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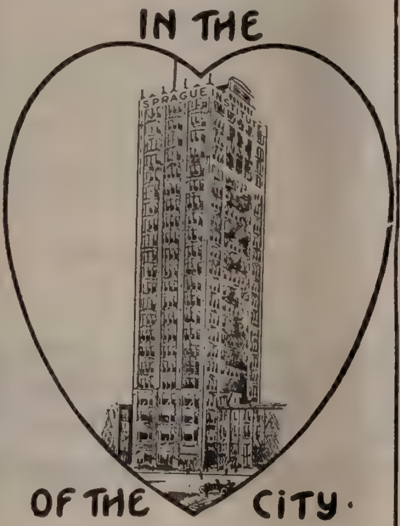

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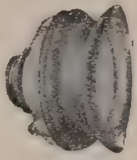

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TWO SAFETY MEASURES IN CATARACT EXTRACTION*

By WALTER S. ATKINSON, M.D., WATERTOWN, N. Y.

THE two measures selected for consideration are paralysis of the orbicularis, and closing of the wound with a suture or sutures.

A forcible contraction of the orbicularis is probably the most common cause of loss of vitreous in cataract extraction. While a loss of vitreous is more or less expected in subluxated and dislocated cataracts, still a sudden contraction of the lid musculature in such cases adds greatly to the seriousness of it. To prevent this, various mechanical measures have been used, all of which are far from being infallible and offer many inconveniences.

Methods of infiltration with novocain, and similar drugs, to block the impulses along the branches of the facial nerve, which supply the orbicularis, were advanced by Van Lint (1), and Villard (2), the principles being essentially the same.

The method has been practiced by many operators who have reported very favorably on the procedure and, while pretty generally used, still many operators for one reason or another do not employ it.

It is not my purpose to offer a new method but simply to support the principle.

Wright (3), in 1921, reported the routine use of this procedure with very satisfactory results. Wright (4) later reported blocking of the facial nerve at its point of exit from the stylomastoid foramen, but the occasional persistence of the paresis or paralysis for several months rather deters us from such a procedure in this country.

Derby (5) in 1923 reported that he had adopted the infiltration with novocain for paralyzing the orbicularis as a routine.

Robinson (6) called attention to the fact that the musculature varied in different patients and that the corrugator supercilii and the angular head of the quadratus labii superiorius, acting in an accessory manner, caused forceful closure of the lids after the method of injection advocated by Van Lint and Villard, had been used, suggesting also infiltrating from the supraorbital notch to the inner canthal ligament, following the contour of the bone, and another beginning at the infraorbital foramen and extending to the inner canthal ligament. In many patients this is not necessary but the aim should be to sufficiently paralyze the musculature of the lids so that the patient is unable to close them, whether one particular method or a combination of different methods be used to accomplish this result. When the lids are flaccid and partially opened, if the patient is asked to close his eyes as tightly as he can and the lids remain open and flaccid, or if one holds the lids open and the patient on being told to close as tightly as possible and no muscular contraction is felt, then one can proceed safely with the operation. This seems to be the safer indication to follow rather than using one method of infiltration and at the expiration of a certain time limit beginning the operation. Infiltration of the lids should, of course, be avoided. Some operators have said that they desire only a partial paralysis or a paresis of the lid musculature, but there seems to be no justifiable reason for such a desire. The more complete the paralysis the more desirable it is. The objection raised that with a complete paralysis the lids will not remain closed under the dressing is more fanciful than real. Operators using a complete paralysis experience little difficulty in this respect.

Smith (7) states in regard to paralyzing the lid musculature with novocain; "it does away with the reflex contraction and reduces the muscle tone so that the lids tend to lie open, but the motor nerves are unaffected and the muscle remains under the control of will." He does not state what method of infiltration or blocking he used but certainly this has not been the experience of many operators using this procedure.

Two per cent novocain, with one or two drops of adrenalin to 10 cc. seems to be about the strength used by most operators. Some feel that it is safer to use one per cent novocain but a longer time is required before the paralysis is produced and very often it is not so complete. When one considers that the general surgeon uses 200 to 300 cc. of ½% novocain in the average case without ill effects, surely 6 or 8 cc. of 2% novocain is well within the realm of safety. Labat (8) gives 30 cc. as the amount of 2% novocain that can be used with safety on the average patient.

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* Read at the Annual Meeting of the Medical Society of the State of New York, at Niagara Falls, May 11, 1927.

In fifty consecutive cases of combined extraction of cataract, some in capsule, where paralysis of the musculature was obtained by infiltration with novocain before beginning the operation, no vitreous presented except in two cases of loop delivery in subluxated cataracts, one with adhesions of the iris below. In these cases vitreous was expected but by drawing the wound closed with a suture which had already been introduced a loss of vitreous was prevented in one and in the other a small amount was lost. The visual results being 20/16 and 20/40, while forcible contraction of the lid musculature in these cases might have been disastrous. In another of this series the cataract was dislocated into the anterior chamber with secondary glaucoma, and was removed without vitreous presenting.

It is realized that with such a small number of cases one cannot draw very definite conclusions as to the desirability of the procedure. Still they help to demonstrate that in uncomplicated cataracts the loss of vitreous from squeezing is eliminated and also that a dangerous loss of vitreous is avoided in subluxated and dislocated cataracts.

The actual time from the beginning of the injection until the paralysis was accomplished was kept. The average time required for 1% novocain with adrenalin was 13.6 min. and with 2% novocain and adrenalin was 6.66 min. In a few paralysis occurred as soon as two and a half minutes. Each operator seems to vary the technic of injection somewhat to suit his individual characteristics, and provided the desired result is achieved without risk or undue discomfort to the patient, it matters very little what procedure he uses, but if a Labat syringe is used and a small wheal first raised with a No. 1 wheal needle, followed by the use of a No. 2 needle (5cm. long) and injected slowly as the needle is introduced, one attains the desired result with the minimum amount of risk and discomfort. If the wheal is raised at about the center of the external orbital margin, the first injection made up the length of the No. 2 needle following the line of the external orbital margin and keeping as close to the bone as possible, then a similar injection down following the line of the external orbital margin, using about 2 cc. for each injection and necessitating only one puncture with the needle, the desired result is usually obtained. However, if not, further injection can be made along the orbital margin as suggested by Robinson. If after about ten minutes has elapsed with the paralysis not yet complete and not increasing, then further injections should be made at right angles to the course of the nerve supply to the orbicularis. While this is rarely necessary, still there is no particular objection to it, except that it requires a little more time.

The fact that the course of the nerves supplying the orbicularis varies in different individuals, as does also the musculature, seem logical reasons for not depending upon any one method of infiltration if a complete paralysis is desired.

The reason cases are recorded where the paralysis is incomplete or unsuccessful is probably due to the fact that a certain method is used as a routine, being done in many instances by an assistant and at the expiration of the usual time the operation is begun. Some surgeons even begin the operation directly the injections have been made, which is obviously wrong.

If the injections are properly placed so that infiltration takes place around all the branches supplying the orbicularis, complete paralysis will be quickly and surely obtained.

Pressure over the site of infiltration seems to accelerate the action of the novocain. A cup of coffee before the operation is neither considered necessary nor always advisable, still patients who have been operated with and without coffee express their preference for the coffee.

To be able to eliminate the phrase "don't squeeze" from one's vocabulary during cataract extraction and to know that the patient cannot squeeze is a wonderful relief to the operator as well as greatly increasing the percentage of successful operations with good vision.

The second measure to be considered is the suturing of the wound.

Various methods have been advanced by operators from nearly every quarter of the globe, and these different methods have been reviewed from time to time in the literature, so to avoid repetition and as a review here seems rather unnecessary, it will be omitted.

Again the object is to support the principle rather than to advance a new way of closing the wound with sutures.

The fact that so many operators have advanced different methods of suturing the wound indicates first, the desire to be able to close the wound quickly and securely, and second, a difference in the personal equation of the operators.

That a conjunctival flap covering as much of the wound as possible is desirable seems to be generally admitted, and although conjunctival sutures are said not to hold the wound so firmly closed as the corneo-scleral suture, still they can be tight enough to wrinkle the cornea, which, of course, is too tight, and they will hold the wound firmly for a day or two which is usually sufficient.

Whether the suture or sutures are introduced before or after the section, has given rise to some controversy, there being good reasons on both sides, but paralyzing the musculature of the lids seems to eliminate many of the objections to introducing the suture after the section, except where corneal or scleral sutures are used. These, of course, should be introduced before the section.

The objection to the Kalt (9) suture is that the wound is not covered by a conjunctival flap.

A modification by Verhoeff (10) of the Kalt suture, and later a modification of this, indicates his desire for a larger conjunctival flap.

To complete the section with a large conjunctival flap before introducing the sutures has the advantage of being easily and quickly done and with very little trauma. Then, provided the lid musculature has been paralyzed, little difficulty is experienced in introducing one central suture, the loops of which can be placed to either side out of the way, and the cataract extracted, the suture tied and two more introduced. With sutures placed nasally and temporally, if a good bite of the conjuctive is taken, the wound at both angles can be closed very tightly at locations where iris prolapse are most likely to occur following combined extractions. The removal of the sutures need not cause uneasiness. If 00 silk is used they very often come out themselves by the 4th or 5th day and if not the irritation from such small sutures is slight, but they can be removed very easily and safely if just scissors without forceps are used, as suggested by Ziegler. This method of suturing the wound has proved to be the most satisfactory for me in the average case, but when the cataract is dislocated or subluxated, I prefer having the flap prepared and the suture in place before making the section.

With Berens' (11) untied suture, some raise the objection that the loops of the suture get in the way during the extraction of the cataract, but there need be only two, one on either side, and if the silk is wet they will lie flat and out of the way. Certainly the advantages greatly counterbalance the objections.

If some method of suturing is used where the suture is introduced before the cataract is extracted, the advantage of being able at any time to close the wound quickly and easily are so evident and so outweigh the disadvantages, that to consider them separately seems unnecessary. A needle holder without a catch adds greatly to the safety and ease with which sutures can be introduced, also a very fine sharp corneal needle, 14 mm. long, with an easy curve makes the introduction much easier.

The forceps tying of sutures simplifies and facilitates the procedure, as well as being an added protection against infection.

A very simple way to tie with forceps is to grasp the lower end of the suture with tissue forceps held in the left hand, a turn of the suture is made around the end of the needle holder which is held in the right hand and the upper end of the suture is grasped with the needle holder and drawn through the loop made by taking this turn. The first of the tie is in this way made and the loops of the suture placed to either side out of the way. When the wound is closed and the first tie is drawn tight, a second one is made in the same manner. In completing the knot, it is desirable to use tissue forceps instead of the needle holder. The fine 00 silk used in suturing often slips through ordinary tissue forceps unless the silk is grasped at right angles to the serrations on the tips of the forceps. This is most unsatisfactory and annoying but if tissue forceps, with a groove on one arm of the biting surface of the forceps and a ridge on the other arm that fits into the groove, are used, the finest silk may be grasped at any angle and will not slip.

SUMMARY

Paralysis of the orbicularis in cataract extraction by infiltration with novocain to block the branches of the seventh nerve supplying this muscle is safe, easily produced, and makes the operation much simpler.

The object should be to get complete paralysis of the orbicularis and one should not confine himself to any one method of infiltration to obtain this end.

In uncomplicated cataracts it eliminates the most common cause of loss of vitreous.

It also helps to prevent serious loss of vitreous in dislocated and subluxated cataracts.

With the lids temporally paralyzed the introduction of a suture is made much easier.

Closing the wound with sutures is desirable and the advantages are many as compared with the disadvantages.

Sutures placed nasally and temporally help to prevent prolapse of iris.

A needle holder without catch, fine sharp needles, with 00 silk, and forceps for tying that do not allow the silk to slip, add to the ease and safety of the procedure.

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CONGENITAL CYSTS OF THE KIDNEYS—TWO CASE REPORTS

CASE NUMBER ONE

By EDWARD P. WARD, M.D., FLUSHING, N. Y.
(From a study made at the Philadelphia General Hospital.)

THIS paper was prompted by the occurrence of a case of polycystic kidneys, one of which was removed surgically, followed by no untoward complications nor sequelæ.

The case is that of a girl, twenty-one years of age, a nurse by occupation, who, until the onset of the attack which caused surgical interference, had an uneventful medical history with the exception of an uncomplicated attack of scarlet fever, four months previously.

Suddenly in the middle of the night she had colicky pains in the left lumbar region, which radiated down the left thigh and to the left shoulder, but were not severe enough to incapacitate her. She continued on duty until 7 A. M. the following morning, when she noticed a swelling to the left of the umbilicus, and was admitted to the infirmary. Physical examination disclosed the tumor, tenderness, rigidity and muscle spasm over left abdomen, without vomiting. Pulse and respirations were moderately accelerated. A differential white cell count showed fifteen thousand white blood cells seventy-eight percent of which were polymorphonuclers.

Urine examination showed a slight trace of albumen and red blood cells. An acute surgical condition of the abdomen was suspected, an exploratory laparotomy was advised and done. A retroperitoneal tumor was found, which upon examination was discovered to be a polycystic kidney with a hemorrhage at its lower pole. The kidney on the opposite side was found to be polycystic also, but on account of the bleeding it was deemed advisable to do a nephrectomy.

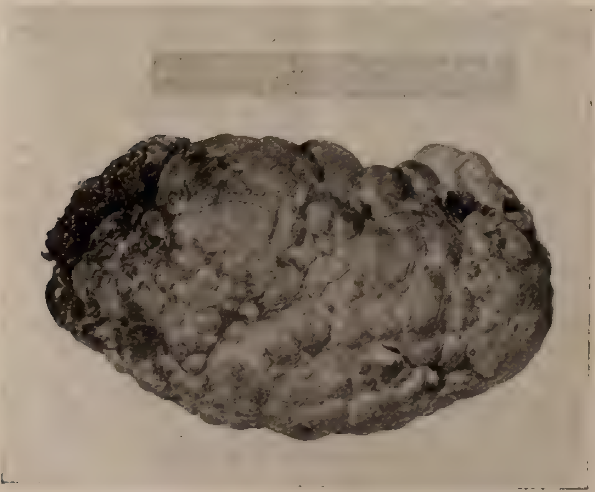

FIG. 1—Kidney removed at operation, showing gross characteristics and ruptured area with hemorrhage at lower pole.

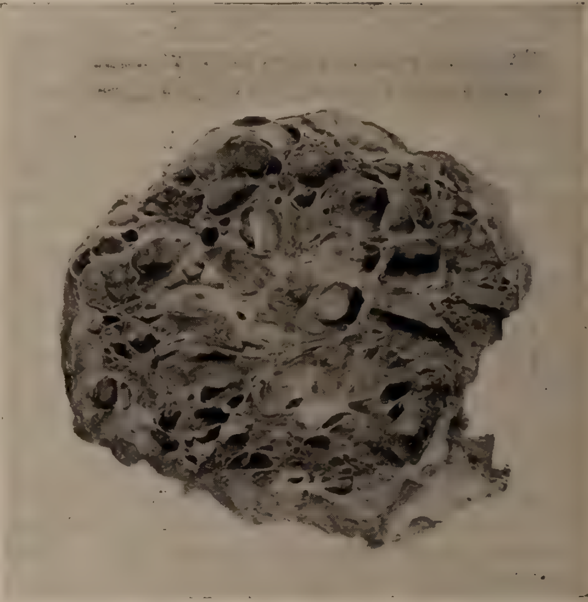

FIG. 2—Section of polycystic kidney, demonstrating great number of cysts and apparently no normal kidney structure.

The patient had an uneventful recovery, except for a mild cystitis and some abdominal pain.

Her fluid intake was limited and she excreted without difficulty over a liter of urine in twenty-four hours. Many chemical examinations of her blood disclosed no nitrogen retention exceeding twenty-six mmg. of urea nitrogen per 100 cc. Uric acid nitrogen was a little increased but within normal limits as were the blood chlorides.

The two hours phenolsulphonephthalein output was but twenty-three per cent, but the patient felt well and wished to be discharged, which was granted, under the care of her physician. And she was, ten months later, living and apparently well.

This case is important from several view points. It shows the large "factor of safety" of the kidneys. It demonstrates that these polycystic kidneys may successfully "compensate" in face of an acute infection with notorious renal affinity.

In our efforts to study the occurrence of this condition as found at autopsies performed at the Philadelphia General Hospital since 1867, many records of cystic conditions of the kidneys were perused. As the cases accumulated, and were reviewed in panorama, they seemed to fall spontaneously into the following classes:

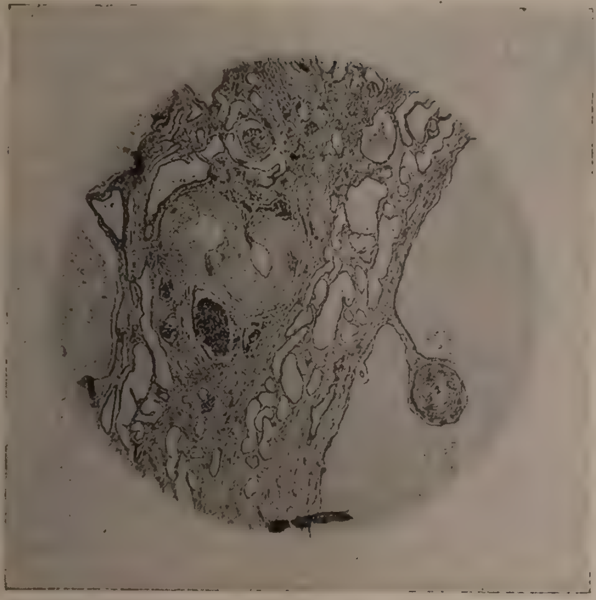

Fig. 3—Photomicrograph of polycystic kidney showing part of a greatly distended capsule, lined with markedly flattened cells, and projecting into the interior of the cyst, a compressed glomerulus.

A. Congenital

B. Inflammatory
- Obstructive
  - Nephritides
  - Syphilis
- Parasitical—Hydatid
- Degenerative (cystoids)
  - Tuberculosis
  - Gummae
  - Abscesses

C. Non-Inflammatory Obstructive
- Acquired
  - Calculi
  - Stenosis, etc.
- Congenital-Stenosis

D. Neoplastic
- Adenomae
- Dermoids

Either one of these may occur either as monocystic or polycystic forms.

But as we are particularly interested in the congenital forms, they alone shall be discussed.

(1) *Congenital Polycystic Form.*—In the records of over 14,000 autopsies done at the Philadelphia General Hospital, during the last half century, by many noted pathologists there are but forty undoubted cases of congenital polycystic kidneys described. It was upon the diagnoses and description of those pathologists that we depended for our material. It may be of interest to know that in 1888 Sir William Osler made the first clinical diagnoses of this condition, confirmed by autopsy in our series, whereas up to 1909 there were but eight such cases diagnosed clinically, in the literature.

As undoubtedly everyone is now acquainted with this much pictured condition we will not take up time describing it, and will only say that occasionally a case is found in which the kidneys depart from the usual size and appear as small organs. Two such cases have been reported by Greene[6] and by Smith[18] in which the kidneys did not weigh over seventeen grams, and in one case only seven.

Microscopically, Ritchie[15] and also Meader[14] show that the cysts in many instances consist of dilated capsules, some of which contained compressed glomeruli, while in other instances, they are formed from dilated proximal tubules, either of the tubule itself or of its distal end.

We have been able to confirm these findings, and in addition have noted in sections of the polycystic and monocystic kidneys, cords of cells, having embryonal characteristics, which may represent non-canalized, vestigal tubules. We therefore infer that not only may there be a failure of union in embryonal life of the excreting and collecting portions of the kidneys, but also the cystic dilatation of the capsule may result from failure of the tubules to hollow out as well.

Etiology.—As the etiology of this condition is after much investigation still undecided only a brief summary of this phase shall be given with reference to Moschowitz[13] for a more complete résumé.

There is an undoubted familiar occurrence of this condition, upon which the reports of Wobus[20] and Crawford[4] are the most convincing.

The "Intra-uterine Inflammatory" theory of Virchow is not accepted today. This theory was followed by the "Multilocular Cysadenoma" theory of Brigidi and Severi. Later the "Malformation Theory" appeared and was advocated in different forms by Von Mutach, Shattack and Hildebrand.

Ritchie[15] believes that the large cystic kidneys of adults differ from those occurring in children and resemble the cysts of the breasts that have a nervous origin. He also contends that the presence of concomitant cysts of the liver (and pancreas) which do not have a metanephros nor a

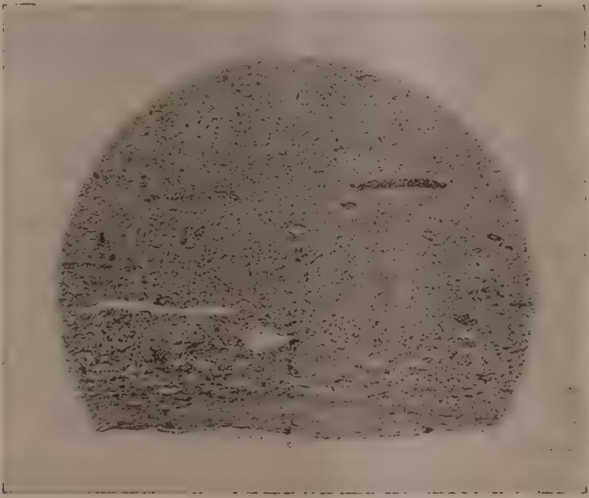

Fig. 4—Section of polycystic kidney showing cords of cells, which may represent non-canalized vestigial tubules.

mesonephros is against Shattack's admixture theory and declares in such cases the cause must be sought in the hypoblast. The occurrence of a case reported by Smith[18] in which there were oven ten concomitant developmental anomalies, many of which were outside the genito-urinary system, lends weight to the assertion. Hinman and Morison[8] have shown by stereoscopic X-ray examination after injection with barium sulphate and gelatin that the circulation in these organs simulates the fetal type.

Kampmeir[9] has shown that in a certain stage of development of the kidneys the tubules are cystic, a normal condition which may persist, the cysts continuing to grow, forming a monocystic or polycystic organ. The consensus of opinion of most investigators is that the condition is one form or other of a congenital aberrancy.

Age at Death.—The average age at death in our series was forty-eight years, the youngest patient was one month of age, with exception of a fetus of four months.

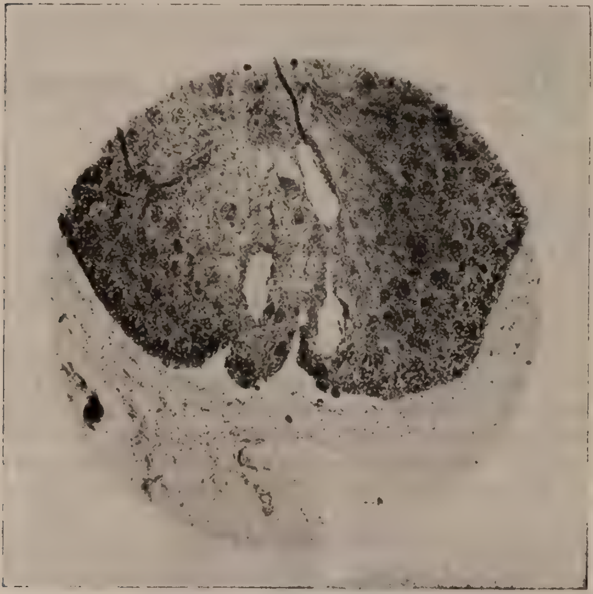

Fig. 5—A higher-power view of Fig. 4.

The oldest was eighty-four years. The largest number of cases occurred between the ages of forty and seventy years.

The most frequent causes of death were those associated with arteriosclerosis. Six patients died of an acute infectious disease, and five from chronic pulmonary affections, four of which were tuberculosis.

Sex.—Females and males were practically equally affected. Of the forty cases twenty-one of them were in males and nineteen were in females.

Race.—The white race seems strongly susceptible, as there were records of but three cases in the colored. This is contrary to opinion of N. D. C. Lewis[11] who believes they occur more frequently among the lower races of mankind, i.e., negroes. We have found but one case occurring in the insane and that was in a cretin.

Involvement.—The condition was bilateral in 30 out of 40 cases but this percentage is influenced by the fact that in four cases there was but one kidney, the opposite one being atrophic. Of the unilateral involvements, the left kidney was affected more than four times as often as the right.

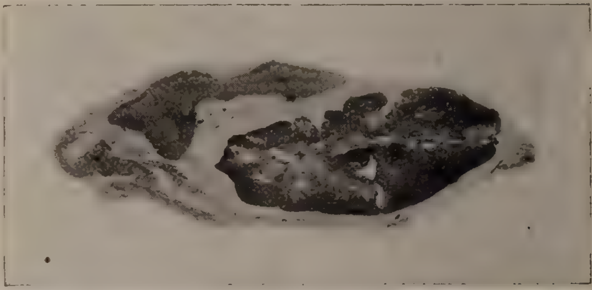

Fig. 6—Section of four months' old fetal kidney showing multiple cysts.

Concomitant Malformations.—In thirty-four cases, there were records of concomitant anomalies of development, but we feel that in practically every case, if a careful search is made other anomalies can be found. These anomalies varied in location and kinds. In six cases the liver also presented cysts a lower percentage than those found by other observers but higher than that of Johnson.[10] In four cases the pancreas also showed cysts. The other concurrent anomalies with the exception of a persistent urachus and a hydatid of Morgagni were confined in one manner or other to the kidneys and conducting system manifested in fetal lobulations, anomalous circulation, double or dilated ureters, absent kidney of opposite side and adenomas. Our results are closely allied to those of Ritchie's, with the exception of a lesser percentage of cystic livers, presence of cysts of the pancreas, and disproportionate race occurrence.

Cystic Contents.—The content of the cysts is of interest. In our series, in most cases it was a yellow serous fluid and in a few cases contained uric acid, colloid material, calcarious matter or hemorrhage.

Many writers have described the fluid content of these cysts as urinous, or as modified urine, others say it is not urine, still others say it contains a small amount of urea.[12] In a few of the recent cases in which chemical studies were made the cyst fluid was found to resemble blood serum, being altered in composition when the blood serum showed similar changes.

For instance, in a case in which the patient showed uremic symptoms before death and at autopsy had bilateral cystic kidneys and cystic pancreas, a chemical examination of the cystic fluid, by Dr. W. G. Karr, showed the following:

Urea Nitrogen	85	mmg. Per 100 cc. of Fluid
Uric Acid N.	7.8	mmg. Per 100 cc. of Fluid
Sugar	150	mmg. Per 100 cc. of Fluid
Chlorides	760	mmg. Per 100 cc. of Fluid

This analysis corresponds to that of the blood of a patient dying of uremia, and does not in any way resemble urine unless it may have undergone the "Serous Modification of Virchow."

Another case was that of a patient two years of age presenting a large tumor in the left abdomen. A paracentesis was performed and the fluid analyzed and contained:

Urea N.	15 mmg. Per 100 cc.
Uric Acid	3.6
Sugar	43 (Glycolysis)
Total Protein	4.5%

Later an exploratory laparotomy disclosed a polycystic kidney. We have done several more parallel examinations of blood and cystic fluids expecially in the monocystic form and the relation between the blood and the cystic fluid has been the same.

Recently, Singer and Brams[16] reported the results of a clinical examination of the fluid of a polycystic kidney, but failed to note its relation to that of the blood.

(2) *Congenital Monocystic Form.*—The monocystic form of these congenital aberrancies of the kidneys is not so spectacular as the polycystic, and consequently has not received as much attention from writers. Clinically, it is not important. Seldom diagnosed before autopsy and in no way interferes with a healthy existence.

The records of 14,000 odd autopsies produced but ninety-five undoubted cases of this anomaly.

Etiology.—It is considered congenital and not inflammatory:

(1) Because of the hypersusceptibility of the kidney to congenital aberrancies, arising as it does from three separate complex, embryonal structures that are incorporated in the fully developed organ.[2]

(2) Because of the existence of a stage in the developing kidney, in which the tubules are normally cystic, which cystic form may persist[9].

(3) The relatively rare occurrence of this condition and the prevalence of kidney inflammations.

(4) The great number of unilateral involvements.

(5) The great size of the cysts. The composition of the cystic fluid and structure of the cysts' walls[8].

(6) Experimentally a papillitis with obstruction is followed by atrophy and not by cysts[3]. But against the congenital theory of origin is the relative absence of concomitant congenital anomalies as found in the polycystic form. In the ninety-five cases of our series there were but nine associated maldevelopments, four of which consisted of retained fetal lobulations, two anomalies of the colon, and the remaining three comprised of double ureters, anomalous renal arteries and a concomitant cyst of the adrenal.

The origin of the cysts is by no means a settled matter. The retention theory has many adherents, as have the new-formation and congenital theories, though the preponderance of evidence is in favor of the latter.

Size.—The cysts varied in size from that of a "walnut," to that of a one 20 in. diameter.

Four were multilocular and eight had associated one or more small cysts, which we inferred were due to a complicating chronic interstitial nephritis, and not of the same etiology.

Position.—The process was unilateral in seventy-seven cases, or about eighty-one per cent. Of these the left side was involved in forty-two or fifty-four and five-tenths per cent. The upper pole was place of predeliction in twenty-two out of the thirty positions recorded. Harpster[7] in his series of 95 cases of voluminous solitary cysts of the kidneys found that the majority were on upper pole and on the right side, as did Terrier[9].

Contents.—The cyst content in seventy-two cases was fluid. The remaining cases had cysts containing calcareous matter, hemorrhage, colloid, and infected material.

A chemical examination of the cystic fluid of the recent cases was made and the findings compared with those of the blood examined before death. They have a marked similarity, which made us conclude that whatever its origin the cyst fluid eventually was not urine, but body fluid, and chemically related, if not identical with, that of the blood plasma, being changed in composition with alterations in the blood.

TABLE NUMBER 1. SHOWING RELATION OF CYST FLUID, BLOOD AND NORMAL URINE

	Case	*Urea*	*N. Ur. Acid*	*Sugar*	*Chlorides*
Blood	M.N.	63 mmg.	6.4 mmg.	164	
Cystic Fluid	M.N.	65 mmg.	6.4 mmg.	190	
Blood	D. B.	32 mmg.	Not Det.	Not Det.	
Cystic Fluid	D. B.	40 mmg.	4.4 mmg.	130	660 mmg.
Blood*	T. H.	38 mmg.	3.8 mmg.	120	
Cystic Fluid	T. H.	45 mmg.	4.6 mmg.	125	
Normal Urine		350 mmg.	7.5 mmg.	0	100-150 mmg.

* Examined one week before death.

Units are in mmg. per 100 cc.

Sex.—The occurrence in relation to sex showed the condition in our series to be more prevalent in males than in females, in a ratio almost five to two. Harpster[7] found a preponderance in females in the cases of large serous cysts of the kidneys, in the literature. It is probable therefore, that sex has little if any significance.

Race.—The black race was affected in eight cases, or eight and four-tenths per cent. Of our series, this is somewhat less than our percentage of total autopsies on negroes.

Cause of Death.—The cause of death in most cases was that in which arteriosclerosis and its concomitant condition played a prominent part. Most of the patients died of chronic interstitial nephritis, chronic myocarditis, uremia or apoplexy. A minority died of pulmonary tuberculosis, malignancy and broncho-pneumonia, acute infectious diseases like typhoid fever, meningitis and acute endocarditis, while a few died of carbon monoxide poisoning, sunstroke and trachael obstruction. None bore any relation to the cysts of the kidneys.

Summary.—We report a case of bilateral polycystic kidneys, in which a nephrectomy was performed, the patient surviving and, ten months later, living and well.

A review of fourteen thousand autopsies at the Philadelphia General Hospital shows the conditions to be rare, the polycystic form occurring but forty times and the monocystic, ninety-five. Though Smalley[17] discovered four cases of polycystic kidneys in one year, Cunningham[5] found but thirty-four large serouscysts in over four thousand autopsies.

The polycystic form is almost always bilateral. The monocystic is more often unilateral. Both appear more often on the left side, when one side alone is involved, and the upper pole is the site of predilection in the monocystic.

In both conditions the white race shows a greater preponderance of cases.

Other associated anomalies can probably always be found if carefully looked for in the polycystic form, while they are uncommon in the monocystic form.

The fluid content of the cysts in both cases chemically resembles body fluid, bearing a definite relation to the blood plasma and showing changes when it is altered.

Both are compatible with a normal life, even in the case of polycystic kidneys, when one is removed.

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CASE NUMBER TWO

By E. F. KENT, M.D., BROOKLYN, N. Y.

(From a study of a case made at the Kings County Hospital on the service of John W. Parrish, M.D.)

R. D.: 7 years; born, U. S. A.; parents, Swedish-Americans; admitted on 7-6-27; died 7-15-27.

History.—The mother states that the child was prematurely born at the age of seven months and three weeks. The birth weight was less than five pounds. At birth he had a "liquid abdomen." Because of this instruments were used at the delivery. "A specialist placed a drop of salve over the kidney area to draw off the water." After about three weeks the abdomen became less distended; though it has always been very large.

The child did very poorly and was continually in questionable health and comfort. He has been observed in numerous hospitals and no definite relief or diagnosis given. The only encouragement was a request for autopsy.

At the age of two and one-half years he was in an auto accident. He suffered "internal injuries" and was ill for about four months. At this time cystoscopic examinations showed pus and blood from one kidney; which one not recalled. From then on the child seemed more prone to be ill. There were periods of comparative alleviation.

About one year ago he had a very severe hemorrhage from the nose and mouth. He has had several of these since then. About three weeks before admission to Kings County Hospital the last one occurred. This was unusually severe and the mother believes that it filled a basin to the halfway mark.

About two years ago a hernia repair was done under local anesthesia because the child was pronounced as tuberculous by the family physician.

The boy appears to be very intelligent. He states that he has been ill for two weeks because of a bad cough which made it hard for him to breathe.

The father of the patient died two years ago of pulmonary tuberculosis. He was ill for years. The family history is otherwise unessential.

PHYSICAL EXAMINATION

General.—Male; seven years old; orthopneic; anaemic; slightly cyanotic, though not in proportion to the orthopnea; malnourished; well-oriented in all spheres; and evidently acutely and chronically ill.

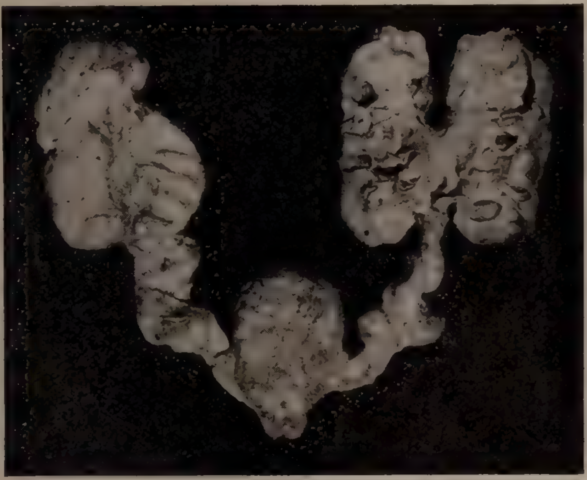

FIG. 7—Thickened bladder, distended ureters, and cystic kidneys (the right one split open) from case two.

Head. — Lips, conjunctiva and ears show marked anaemia. The superficial facial veins are prominent. The ears are clear. The pupils react to light and accommodation; consensual reflexes present; occular movements good. The nares are normal in appearance, thought show an anaemic blanch to the mucous membrane. The tonsils are hypertrophied and cryptic. There are palpable lymph nodes at the angle of right mandible.

Thorax and Lungs.—Accessory muscles of respiration in use; pronounced clavicula fossæ and diaphragmatic retractions. Slight rachetic rosary. Increased dullness, diminished breath sounds and course rales at the right base; scattered moist rales throughout. The lungs give the impression of a pulmonary congestion due to cardiac decompensation.

Cardiac. — Marked increased cardiac dullness. The apex is in the sixth intercostal space and outside the nipple line. Tone is good, systole prolonged, and slight systolic murmur at the apex. Pronounced carotid pulsations present.

Abdomen. — Marked symmetrical distension. On palpation a definite mass rises from the pelvis and extends two fingers' breadth over the umbilicus, much like the pregnant uterus. This is probably distended bladder, though it feels like a uterine fibroid. The liver edge is palpable for three fingers below the costal margin. There is a palpable mass on the right side and below the liver. It is apparently not attached to the liver and is non-tender. This gives the impression of hypernephroma or cystic Meckles diverticulum. There is no definite abdominal tenderness on moderately heavy palpation.

Genitalia.—Show evidences of old circumcision and hernia repair.

Rectal.—Indefinite mass in bladder region and extending up.

Extremities.—No deformity. Tendon reflexes increased.

Blood Pressure.—150/140.

Impression.—Retention of urine; hypernephroma, and cardiac decompensation.

NOTES

The patient was catheterized at various times and amounts from thirty-two ounces and less were obtained. This despite the fact that the child had fairly regular voidings of from two to eight ounces of urine. The bladder was never smaller than midway to the umbilicus.

The boy became more fretful, the abdomen tender, and examinations less satisfactory as time passed. The mass in the right abdomen was palpable only at times. The lungs cleared under medication until the terminus. The patient became clinically more and more uremic. Some blood was given subcutaneously. Preparations were under way for a direct donor; the mother did not match. The child was too weak for cystoscopy or any surgical procedure.

Consultations gave no definite opinions, though the speculations included perinephritic abscess, congenital polycystic kidneys, hypernephroma, congenital spasms of bladder sphincters, hydroureters, diverticulum, and abdominal neoplasm.

The X-rays were negative. R.B.C, 2,560,000; WBC, 9,400; Polys, 59 per cent. The urine showed sp. gr. 1006 to 1010, otherwise negative. The temperature varied from 98.6 F. to 104 and septic in type. The pulse followed the temperature fairly well.

The child steadily lost ground and died.

Clinical Diagnosis.—Retention of urine, acute and chronic; atony of bladder; chronic cystitis; hydronephrosis; chronic nephritis, interstitial; chronic myocarditis; chronic uremia; simple anaemia.

Autopsy.—

Anatomical Findings. — Hydronephrosis, pyelonephritis, chronic cystitis, chronic myocarditis.

The body is that of an anemic white male child about seven years old; post-mortem rigor and lividity not present; moderate degree of emaciation; hair, white; face, swollen; no evidence of trauma externally.

Median incision made from suprasternal notch to symphysis and the sternum removed.

Lungs.—Not adherent, normal size, pale anemic color; on section, tissue normal except for pallor and somewhat edematous condition.

Heart.—Approximately twice normal size, left heart dilated and markedly hypertrophied; myocardium, pale; valves and aorta, normal; coronaries, patent and elastic.

Liver.—Normal shape, pale color, parenchyma paler than normally, tissue edematous.

Spleen.—Twice normal size, firm, excess fibrous tissue.

Kidneys, Ureters, Bladder.—Removed en masse. Kidney, twice normal size and composed practically entirely of cysts; little normal kidney substance remains. Cysts contain thick, yellowish, pus-like material. Ureters dilated to calibre of about one inch and are coiled on themselves. They are filled with a pus-like material. Bladder wall markedly hypertrophied and sections with extreme resistance; the cavity contains about one half ounce of the similar material.

Stomach, Intestines, Pancreas.—Apparently natural.

Mesentery.—Contains numerous small, soft, noncaseous nodes.

Thymus.—Slightly enlarged, soft and edematous.

Cause of death—chronic myocarditis; pyelonephritis.

HISTOLOGICAL DATA

Heart.—Parenchymatous myocarditis.

Lungs.—Moderate chronic passive congestion; areas of focal atelectasis and emphysema.

Liver.—Cloudy swelling, edema.

Spleen.—Congestion, edema.

Pancreas.—Normal.

Testicle, Epididymis.—Normal.

Mesentery Lymph Node.—Hyperplastic lymphdenitis.

Note:—The kidneys were not sectioned; reserved for museum purposes.

Pathological Specimen.—The hydronephrosis shows up well in the hypertrophied bladder, ureters and in the continuity of the pelvis of the kidneys with the apparent cystic formations in kidneys.

FIRST YEAR OF THE MEDICAL PRACTICE ACT*

By HAROLD RYPINS, M.D.,

Secretary, New York State Board of Medical Examiners, Albany, N. Y.

ALTHOUGH the so-called Webb-Loomis bill became a law by the signature of Governor Smith on May 17, 1926, it was not until the fall of that same year that the administrative machinery necessary for making the act effective was organized, so that for practical purposes the law has been in effect approximately one year. At this time it is proper that we should take stock of the results of this important legislation and that we should give our results to the general public and to the medical profession. To do this in an intelligent manner requires taking into consideration two factors—firstly, the objects of this proposed modification of the Medical Practice Act, and secondly, the establishment of some acceptable criteria for measuring the effectiveness of this legislation.

In general the objects of the proponents of this legislation may be briefly classified as follows:

I. To drive out illegal quacks and charlatans.

II. To create a Grievance Committee.
  (a) To discipline licensed physicians.
  (b) To dispose of complaints against licensed physicians where no adequate cause of action is present.

III. To establish and regulate the profession of physiotherapy.

IV. To set up permanent administrative machinery for the enforcement of the law.
  (a) To compile an annual, accurate registry of physicians.
  (b) To raise sufficient funds for the proper administration of the act.

With the lapse of one year we should now ask ourselves whether or not these four major purposes have been accomplished and what measure of success has been reached in the first year's administration of the law.

Before proceeding to an analysis of these factors I wish to state that a year's intimate association with this matter has satisfied the Department of Education, upon which the burden of this administration largely falls, that the act is doing at least as much, if not more, than was expected of it. It will be recalled that the Department went on record as stating that there were approximately 16,000 licensed and 4,000 unlicensed practitioners in this State, so that an unguided patient had one chance in five of falling into the hands of a quack or charlatan. Our registration figures now show that our estimate of the number of licensed physicians was too low, the total approaching approximately 18,000; but our experience leads us to believe that our estimate of the illegal practitioners was not too high and that 4,000 was probably a conservative estimate of the number of illegal practitioners in New York State. The Department stated that it would take three or four years to sweep the State reasonably clean of medical quacks and charlatans but that probably upwards of 1,000 could be eliminated during the first year. As will be seen later, this figure was a very accurate estimation of what could actually be accomplished in one year but there is reason to believe that the number of quacks and charlatans will diminish more rapidly in the next few years, although there will never be a time when some quacks will not be settling in the State.

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* Read before the Society of Medical Jurisprudence, December 12, 1927.

The value of a Grievance Committee and the establishment and regulation of the profession of physiotherapy were considered as secondary factors and no definite prognosis was made concerning their effectiveness. To reiterate then, up to the present time the first year's administration of the Medical Practice Act has more than satisfied those charged with its administration that it has accomplished approximately what was anticipated and that more illegal practitioners of medicine have been eliminated in the last year than in the two decades preceding this modification of the law.

Elimination of Illegal Practitioners

In estimating the number of illegal practitioners that have been driven out of the State it is naturally impossible to give statistical figures but there are certain criteria which lead me to feel fully warranted in the assertion that not less than 1,000 quacks and possibly more have discontinued practicing in New York State during the past year. This very satisfactory estimate is arrived at on the basis of a number of criteria. For example, a close check-up on the illegal practitioners of Buffalo shows that 50 known illegal practitioners can no longer be located in Buffalo. If Buffalo may be taken as a fair sample of the State, the proportion of 50:600,000::x:11,000,000, gives the figure of illegal practitioners eliminated from practice as 1,100. Again, the district attorney of Kings County investigated 35 cases. Of these 35 cases, 6 were convicted, 3 cases were dismissed, 2 are pending before the magistrate and 6 are pending in Special Sessions, while of the remaining 18, not one can at present be located in Brooklyn. In other words of 35 cases investigated in Kings County, 24 have been found guilty or have disappeared from practice and 8 are now under arrest. The number of illegal practitioners in Kings County has never been estimated but from a sample of 35 cases investigated, only 3 are now known to be practicing.

Again, my inspectors, who are specially trained in securing evidence of illegal practice, even where there is no sign displayed, report to me that in the City of New York it is now almost impossible to secure treatment by an illegal practitioner although they state that many of them are still operating under cover in constant fear of treating police agents.

Officers of the states of Pennsylvania, New Jersey and Canadian provinces have complained bitterly of the number of cases of quacks who have crossed over the New York boundaries to operate in these neighboring territories.

Lastly, the unauthorized use of the title "Dr." either by signs or on advertising literature has practically discontinued. This is very important as it shows the prospective patient at least that he is taking treatment from one who is not a licensed physician and therefore at his own risk.

As I previously stated these data would appear to make the estimate of 1,000 illegal practitioners who have been driven out of New York State in the past year conservative and justifiable.

Prosecutions

It might appear natural to estimate the number of illegal practitioners eliminated by the actual number of prosecutions and convictions but this is certainly not the case.

Cases arrested	103
Convictions	30
Acquittals and dismissals	14
Arrested and pending trial	58
Died before trial	1

Naturally these defendants have resorted to the usual law's delays but our experience shows that about two-thirds of those arrested are held and finally convicted, so that it seems fair to estimate that of the 103 cases arrested during the past year approximately 65 will be convicted. When it is seen that out of 728 cases investigated only 103 have been arrested it is obvious that each arrest probably means that 5 other individuals have been frightened from practice and that for every conviction, particularly with jail sentences, probably 20 illegal practitioners have discontinued their practice. No one of these methods is a scientific one for statistical estimations, but putting them altogether I believe they indicate that not less than 1,000 illegal practitioners have left the State during the past year.

Convictions and Sentences

Experience has shown that if after arrest an illegal practitioner is held by the magistrate the chances for conviction are well over 50%. The statute provides for a fine of not more than $500.00 or more than one year imprisonment or both, but in general the courts of special sessions have strongly preferred giving jail sentences as they feel that this is the shortest way to eliminate illegal practitioners from the State. Four cases have received one year jail sentences, several have received 90 days and most of the others 30 days, in which case the operation of the sentence is often suspended provided the individual discontinues the illegal practice. A few fines, ranging from $25.00 to $500.00 have been imposed. Although jail sentences for more than 30 days appear somewhat severe there is no doubt that they act as a strong deterrent and doubtless the experience of the magistrates in similar cases justifies these severe penalties.

Type of Practitioners Prosecuted

Curiously enough there is no one special group of illegal practitioners found either on investigation or by classification of arrests. They are widely distributed among chiropractors, naturopaths, physicians without licenses, foreign physicians who can not obtain licenses, faith healers, druggists, laymen, herb doctors, naprapaths, bone setters, and licensed practitioners in the lesser allied fields of optometry and chiropody.

Distribution in State

It is obvious that the Medical Practice Act has been most efficacious in Greater New York, over 85% of our cases being there. This can be explained by three factors—(1) cases in New York City are not tried by a jury but by three magistrates in a court of special sessions; (2) we have had the generous cooperation and assistance of the district attorneys of both New York and Kings Counties; and (3) the attorney-general's office has been consistently well equipped to handle these cases in New York City. In the up-state prosecutions on the other hand, we are in the first place faced with the bugbear of a jury trial where most of the jury are found to be friends or neighbors of the defendant and many of them are very enthusiastic about the success of various cultists. Until the present time, also, we have not had the full-time services of a deputy attorney-general to prosecute these cases up-state, but the Department has just appointed a new man who will devote his entire time to these cases and it is believed that due to this and the increasing efficiency of our inspectors, our efficiency in up-state prosecutions will improve.

In general, it may be said that the legal machinery, both theoretical and practical, for investigating cases of illegal practice is thoroughly satisfactory and that the creation of a special office for handling these matters is the only effectual way of dealing with them.

Grievance Committee

The Grievance Committee was appointed for two reasons—first, to investigate improper practice of licensed physicians and recommend the proper discipline to the Board of Regents; and second, to act as a filter for the numerous unfounded cases of malpractice and negligence claims that are yearly brought against practicing physicians. The Grievance Committee, under the chairmanship of Dr. Orrin Sage Wightman's has worked out a very satisfactory manner of handling these cases and within a short time Dr. Wightman's committee will publish a resume of their first year's accomplishments. Curiously enough what seemed to be the minor feature of the Grievance Committee has so far turned out to be the major one, as through the cooperation of its officers and this Department not less than 35 unfounded charges, looking to the discipline of practicing physicians have, upon investigation, been disposed of and so far as I know there is no single one of these cases that has ever reappeared in any civil court. In other words, a large number of individuals complaining against practicing physicians are willing to bring their complaints of malpractice or negligence to the Grievance Committee and are apparently well satisfied when after investigation the Grievance Committeee reports that no basis for action on the part of the Committee exists in law. This is a procedure which, of course, saves expense on the part of the complainant as well as undue notoriety and expense on the part of the practicing physician, so that this particular function of the Grievance Committee alone has more than justified the cost of the annual registration imposed upon the profession. It may be considered as a type of insurance in which by paying an annual fee of two dollars, the chances of a physician's being brought into a court on a civil suit are eminently minimized.

Physiotherapy

Up to the present time about 125 physiotherapists have been licensed to practice. It has been found that there is a very definite need on the part of the public and practicing physicians for this type of technical assistant and the number so far licensed is small enough so that their activities are fairly well under control. The law does not permit a licensed physiotherapist to give medicine nor to treat diseases except under the direction of a duly licensed physician, so that the former practice whereby these individuals engaged in diagnosing or treating unscientifically is very well under control.

Very fortunately New York University has started a four-year course in physical training and physiotherapy in association with the Hospital for the Ruptured and Crippled on a university standard and it is believed that the establishment of such a course in an organized university will practically drive all the competing commercial schools out of the field.

It is still difficult to estimate the real value of the non-medical physiotherapists but up to the present time I believe that the creation of this profession, under proper management and control and with high educational standards, is of a great benefit to the community and to the medical profession.

Perhaps the chief respect in which the present New York State statute is superior to the medical practice act in other states is that it has actually created a permanent administrative mchinery for the sole purpose of enforcing the provisions of the statute. It has been said that the object of this legislation was to put teeth in the Medical Practice Act. Even more so, it was to create an organism which would intelligently and forcefully manipulate these teeth.

The Medical Practice Act is administered by the Secretary of the State Board of Medical Examiners under the supervision of the First Assistant Commissioner of Education with the assistance of two full-term deputy attorneys-general, a bureau for the handling of annual registration, a force of from five to seven full-time inspectors and the necessary clerical help. To this should be added the very generous voluntary assistance of the various district attorneys, more particularly the assistant district attorney of New York County, Mr. Michael A. Ford and the assistant district attorney of Kings County. Mr. George F. Palmer, Jr., as well as the very valuable assistance given by the Health Department of the City of New York, through Dr. S. Dana Hubbard.

The funds for administering this office are derived from the approximately $36,000.00 annual registration fees and are just about sufficient to carry on the work effectively.

Number of Registered Physicians

After the admittedly indefinite figures prepared in all of the foregoing it is with pleasure that I believe I can report more accurately than anyone else the actual number of practicing physicians in New York State for the year 1927 and who are registered as actively engaged in practice.

Physicians	17,430
Osteopaths	331
Physiotherapists	120

This doubtless represents more than 95% of those actively engaged in practice.

The annual registration list has proven of great value to court officers, inspectors, health officers and others and judging by the number of requests for lists of the registered physicians received from the general public, it is also being used by the public in selecting the wheat from the chaff among physicians.

Summary

An estimate of the result of the first year's operation of the Webb-Loomis bill justifies the conclusion that it has more than shown its value and has accomplished all that was predicted of it by its proponents.

I. During the past year not less than 1,000 illegal practitioners of medicine have been eliminated from the State.

II. The Grievance Committee has functioned successfully and very satisfactorily to the benefit of the medical profession.

III. The establishment of the new profession of physiotherapy has justified itself.

IV. It can be stated definitely that there are at least 17,430 licensed physicians, 331 licensed osteopaths and 120 licensed physiotherapists, registered as practicing in the State of New York for the year 1927.

V. The legal and administrative machinery of the Medical Practice Act has proven highly satisfactory and is the one single feature of any medical practice act which determines success or failure.

Finally, the gratitude of the Department of Education is expressed for the hearty cooperation of the practicing physicians, the attorney-general's office, the offices of the various district attorneys and health departments, particularly in New York City, as well as the various judges throughout the State, in making this act successfully operative.

SOME OF THE MORE COMMON LOWER ABDOMINAL CONDITIONS AND EMERGENCIES OCCURRING IN BOTH THE MALE AND THE FEMALE*

By JOHN B. DEAVER, M.D., PHILADELPHIA, PA.

A DISCUSSION of some of the more common conditions and emergencies in the lower abdomen, will, I dare say, be more welcome to many of you than the much more frequently discussed diseases of the upper abdomen. Although I must confess to being a guilty party to the latter, I hope I have not sinned in vain. I trust what I shall say will be of interest to all of you, the general practitioner, the surgeon and the specialist.

The most common condition, of course, is appendicitis, but at this time it is a special type of that disease, and I may say one that often causes confusion—pelvic appendicitis. It is an accepted fact that in about one third of cases of appendicitis the appendix is in the pelvis and occupies a position immediately beneath the mesentery or the terminal ileum or immediately beneath the terminal ileum alone. It is then in the false pelvis, that is, above the ileopectineal line. But when the appendix extends well down into the pelvis, that is, below the ileopectineal line or lies wholly in the pelvis and is inflamed or perforated, the diagnosis is more often than not missed. This position of the diseased appendix has been responsible for numerous sins of omission and more of commission leading to fatalities because the condition is diagnosed as an inflammation of the uterine appendages, particularly of the right side, and diverticulitis of the sigmoid. During recent years, since diverticulitis of the sigmoid has come to be better understood than formerly, pelvic appendicitis has often been mistaken for it. This differentiation, however, is not by any means easy nor is it always possible. After the onset of pelvic peritonitis, and especially if it is already in an advanced stage, the diagnostic picture is much befogged, of which I shall speak presently. In the diagnosis of lower abdominal diseases examination per rectum should always be made, and if this is done gently with a refined touch much information can be gained. During the many years, and happy years they were, that I was privileged to teach topographical anatomy I always required my students to study carefully what was to be made out by vaginal and rectal examination of the cadaver. By gentle examination I mean carefully introducing the greased finger into the rectum without causing any discomfort or pain. This is done by asking the patient to bear down against the finger as it is being introduced into the rectum. The sphincter is thus dilated and the examination facilitated. This manipulation rarely fails to make a "hit" with patients, especially those who have experienced the more painful examination by less gentle means. In this way also the confidence of the patient is acquired, the psychologic effect of which, as you all know, is most important.

I have referred to the presence of advanced peritonitis befogging the diagnosis. When peritonitis, if at all advanced, is present the history, plus the findings by examination per rectum and vaginam, is about all from which we can take our bearings. In such cases we are like the captain of a ship in a dense fog whose compass is out of commission and who has only his experience and what is to be learned from soundings to guide him. In pelvic appendicitis, particularly where the appendix is in the lower pelvis, the distinguishing points, in addition to the history, are: left-sided pain, bilateral rigidity and vesical symptoms. So-called left-sided appendicitis is a misnomer. It occurs only where there is complete transposition of viscera. Personally, I have met with only one instance of this anomaly in the many thousand cases of appendicitis I have operated. This case was diagnosed pelvic appendicitis, and on opening the abdomen upon the right side, the sigmoid presented. I opened the left side and exposed the cecum and the appendix located in the pelvis. Introducing my hand into the upper abdomen I found the liver on the left and the spleen on the right side.

The initial pain in appendicitis, as is well known, is as a rule referred to the peri-umbilical or epigastric region and in a very short time is referred to the location of the appendix. Oftentimes, the case is at first considered a simple bellyache. If, however, it is a case of appendicitis, palpation will reveal tenderness over the appendix, although the pain may be referred elsewhere. In the early stage there is only appendiceal irritation or appendiceal colic. In an acute attack, occurring in a chronically diseased appendix, the initial pain is generally at once referred to the site of the appendix.

In this connection let me say a word with regard to the frequent contention that chronic appendicitis is not a clinical entity. With all due respect to those who hold this opinion, I am free to say that my experience convinces me that chronic appendicitis is as much a disease as ulcer of the duodenum or stomach, to which it is often related, in that the infection causing the ulcer often has its origin in the appendix. You all know Sir Berkeley Moynihan's well known dictum that most ulcers of the duodenum and stomach originate in the appendix. I have no doubt many of you here agree with him. I do not hesitate to repeat what I have frequently said: Before deciding upon a diagnosis in an abdominal ailment, think first, last, and always of the appendix. In other words, in determining the condition causing an abdominal ailment we most often find it in the appendix. I like to speak of this troublesome little organ as our first love because of its former connection with the late Reginald Fitz who called attention to its ubiquitous rôle, and our continued love from the relation it still bears to obscure abdominal ailments. I admit that the removal of a chronically diseased appendix does not by any means always relieve abdominal symptoms. But this is no proof that chronic appendicitis does not exist as a disease, but may merely prove that an incomplete diagnosis has been made. Removal of a chronically diseased appendix will not correct symptoms caused by such conditions as mobile cecum, coloptosis or gastroptosis, chronic colitis, incipient tuberculosis of the cecum or of the mesenteric glands, especially the gland at the ileocecal junction, colonic stasis, carcinoma of the cecum, stone in the right ureter, etc. Nor will it cure a retroperitoneal lymphangitis with evident and palpable inguinal lymph glands, the cause for which, by the way, I have occasionally found to be a superficial infection of the toe or of the lower leg or carcinoma of the lower rectum or an incipient right inguinal hernia or an undescended testicle advancing along the inguinal canal attempting to find a final resting place. In the female this may also be due to a right ovary or a Fallopian tube trying to excursion into the inguinal or femoral canal or a small diverticulum of the small intestine playing hide and seek with the inguinal canal by way of the internal abdominal ring, where it finally becomes ensnared and strangulated and demands operation for the release of the strangulation. This is a pretty large bill of fare, is it not?

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* Read before the Seventh District Branch Meeting, at Geneva, N. Y., September 28, 1927.

Practice in making a physical examination is of the greatest value. This should be done with the body exposed and not through the clothes. Our armamentarium is replete with much that is good, and much that is no good, but nevertheless it is our duty in this respect to give the patient the benefit of every known rational (with emphasis on the rational) procedure, by which one may arrive at a correct conclusion. And in this armamentarium I consider the physical examination with the trained touch of as much importance as any of the more or less useful adjuncts we have. With this somewhat lengthy, and I hope pardonable digression, let us return to our discussion.

A less common condition than pelvic appendicitis, but one which is demanding attention today, is diverticulitis of the sigmoid. This is met with clinically as one of three varieties — interstitial inflammation of the sigmoid, inflammation of a diverticulum of the sigmoid, and inflammation of the epiploic appendages of the sigmoid. The symptoms and signs of these varieties are more or less the same. Differentiation between them is not always possible nor is it very important, as the line of treatment is practically the same, except in the perforative variety, in which the pain is very excruciating and tenderness very marked. These cases, unless seen very early before the onset of other than a local circumscribed peritonitis are not operative. Treatment should consist of anatomic and physiologic rest, that is, gastric lavage, the local application of cold, and enough morphia to relieve the pain and quiet the peristalsis. This line of conservative treatment is usually successful, while indiscriminate operation is attended by a high mortality. When a circumscribed collection of pus is formed, simple incision (extra-peritoneal approach, within most instances removal of the appendix) and drainage is the procedure indicated.

The history of diverticulitis is usually that of constipation, sheep-manure stools, much intestinal gas with inability to pass it freely enough to give comfort, associated with more or less marked lower left abdominal soreness or pain and tenderness to deep and firm pressure externally and by high rectal examination. In the presence of a tumor, in either sex, one must first determine whether the process is inflammatory or non-inflammatory. I need not call attention to the consideration of the pulse rate, the temperature and the blood picture. In a male, an inflammatory process may indicate psoitis or psoas abscess, while in the female it may be due to an ovarian cyst with twisted pedicle and occasionally to a suppurative pelvic cellulitis, usually a post-puerperal infection that points above the lateral half of Poupart's ligament. A deep abscess of the abdominal wall, though rare, is occasionally seen in connection with an intra-abdominal malignant growth that has become adherent to the parietal peritoneum and is breaking down. In the male I have seen suppuration of the great omentum that has occupied the sac of a left-sided, incarcerated, inguinal hernia following reduction by rough and prolonged taxis. The etiology here as in appendicitis is infection. It may be well to remember that diverticulosis differs from diverticulitis in that it consists of a number of very small diverticulae of the transverse colon and the sigmoid and is not operative. Inflammation of a Meckel's diverticulum produces peritonitis, the cause of which can only be disclosed by operation. Oftentimes a case of strangulated hernia is reduced *en bloc,* that is, the hernial mass has been reduced but the symptoms persist. In such instances, the only alternative is operation. As I see it, and as a large hospital experience has taught me, taxis is a dangerous procedure, and is responsible for much of the high mortality in strangulated hernia. This is estimated at 50 per cent—entirely too high a mortality for strangulated hernia. What are the operative findings in many of these cases? Blood or bloody fluid in the sac, smears of which, with few if any exceptions show streptococcus or the colon bacillus. Therefore the sac of a strangulated hernia should be evacuated and cleaned before dividing the constriction causing the strangulation, and thus prevent this poisonous fluid from entering the peritoneal cavity. Oftentimes taxis causes hemorrhage into the bowel wall and the mesentery, and precipitates gangrene. This makes a bowel resection, if necessary, more serious, in that more of the bowel as well as of the mesentery must be removed in order to get clear of the hemorrhagic, thrombotic area. If in all irreducible hernias, whether strangulated or not, operation in place of taxis were done early, the mortality would be reduced, I believe, to a very small per cent. Why then continue to teach taxis?

Acute intestinal obstruction occurring in the lower abdomen may be due to one of several causes, the more common of which are adhesions, the result of a previous abdominal operation, a congenital hole in the mesentery, impacted gallstone, neoplasm, or carcinomatous stricture. These are cases for immediate operation and not deliberation or medication. Look and act—not watch and wait (Moynihan). To medicate these patients places us in the class of life destroyers and not of life savers. Acute obstruction supervening upon chronic obstruction, as, for example, by a growth or annular stricture, usually carcinomatous in origin, is not a case for radical but for palliative operative work in the shape of a cecostomy. If warranted more radical work can be done later.

In the female the more common lower abdominal conditions, such as some form of salpingitis-hematosalpinx, pyosalpinx, hydro-salpinx, fibroid of the uterus, simple and dermoid cyst of the ovary are generally easily recognized. In the inflammatory conditions, the diagnosis, with few exceptions, can be made by the history, the presence of a vaginal discharge, and by bimanual examination including digital examination per vaginam and rectum, especially if the rôle of pelvic appendicitis is kept in mind. I stress this, as I frequently see pelvic appendicitis diagnosed inflammation of the uterine appendages. The differentiation is most important in the presence of an active pelvic peritonitis, in which precipitous abdominal operation may spell disaster. If by digital touch per vaginam there is definite evidence of a pelvic collection, incision only, through the roof of the vagina, posterior to the cervix at junction of latter with vagina, is the best operative procedure. To introduce the finger or fingers through the vaginal incision into the pelvis under such circumstances with the idea of finding and evacuating pockets of pus is a mistake. In making a vaginal examination in a nervous, apprehensive woman with pelvic pain, a sigmoid loop comparatively full of soft feces, may be mistaken for a tubal condition.

Another mistaken diagnosis that often occurs is to diagnose fibroid uterus where a subacute or chronic pyosalpinx, with organization of the tubal and peri-tubular exudate and the tubes adherent to the sides and posterior surface of the uterus, produces a hard mass of considerable size associated with metrorrhagia or menorrhagia in women approaching middle life. This is not of serious moment, as abdominal operation should be made in any event. Both metrorrhagia and menorrhagia are frequent occurrences in these conditions, as well as in others, as in the presence of a large intra-ligamentary cyst, papilliferous cyst carcinoma of the ovary, tubo-ovarian disease, etc. Both curettage and radium are prohibited in any of these conditions. I seldom use radium in pelvic disease of women excepting in carcinoma of the cervix and then only in the late cases, but not in the very early cases. Although I use radium in the advanced cases of carcinoma of the cervix I have yet to see such a case that has been cured. This will strike some of you as perhaps a strange statement to make, but nevertheless this is my personal experience.

You may be interested to know my attitude as to the use of radium in conditions other than malignancy. I do not use radium in the treatment of fibroids of the uterus where operation is not contraindicated. I am sure that, in skilled hands, operation is attended by less mortality and less chronic morbidity than after treatment either by radium or x-ray. The selection of the case for the correct line of treatment, I believe, should be made by the abdominal surgeon of large and varied experience, and not solely by the strictly specialized roentgenologist or radiologist. Even then mistakes will occur. I feel very strongly about this, having seen many unfortunate occurrences, such as pelvic abscess, sepsis, fistulae, necrosis, etc., as the result of ill-advised radiotherapy. In this matter I feel much as I do regarding intravenous therapy practiced so generally and, as I do not hesitate to say, injudiciously. In the bleeding non-malignant uterus, in the absence of appendigeal disease, which no one can always be sure of, radium may be used, but the dosage should be such as not to destroy ovarian function. In pelvic operations in the female, we argue in favor of saving the ovaries when possible, therefore is the argument not equally strong when using radium? We read and hear much about transplantation of ovaries as well as giving ovarian and corpus luteum extracts to correct the condition brought about by the removal or destruction of the ovaries, therefore why take them out or destroy them when it is possible to leave them in?

Mistaken diagnosis of intra-ligamentary cyst, especially papilliferous cyst carcinoma of the ovary, is excusable. An intra-ligamentary cyst that is fixed and of smooth contour usually displaces the body of the uterus to the opposite side of the pelvis and, except in the absence of a much distended sac wall, will show a resiliency that suggests a fluid tumor. Papilliferous cyst carcinoma of the ovary frequently is not diagnosed until the abdomen is opened. The important signs in a female past middle life are the presence of free or encysted fluid in the abdomen and by vaginal touch of an irregular hard mass behind and to the side of the uterus and cachexia or a color suggestive of a serious condition. To one who has not seen many of these cases metastatic carcinoma will most likely be the diagnosis. These patients, unless approaching extremis, should be operated. In fact, in my experience, with early operation life has been materially prolonged, so much so that the patients considered themselves well until a recurrence took place. In some cases I have operated a second time with further prolongation of life. The very late cases are hopeless, although in a small percentage operation may accomplish something. When the case is not too far advanced I make the operation a very radical one, removing, when possible, everything in the way of discrete masses. In fact, I have cut away an infiltrated great omentum, and where the body of the uterus, but not the cervix, is involved, have made a subtotal hysterectomy. Where there is considerable bloody oozing at operation I drain the pelvis with a glass tube which is removed the next day, or, at the latest, the second day after the operation. In some cases a lot of gelatinous material is encountered; this I remove by hand and by irrigation. I have taken out enough of this material to fill an ordinary-sized bucket. It is marvelous the improvement that takes place in some of these cases after operation. When asked to have these patients x-rayed after operation, I agree, but I have never seen any very good results.

In conclusion, let me say a word about the lower abdominal emergencies occurring in the woman, chief among which are ruptured extra-uterine pregnancy, tubal abortion and rupture of a blood cyst of the ovary in the young girl. In the first named, the diagnosis in most instances is made before the abdomen is opened, chiefly by the history, the appearance of the patient, the blood picture and the presence of a distinct wave of fluctuation upon the lightest palpation. I have demonstrated this to my internes many times. The characteristic point in reading the blood picture is the high leucocytosis. In the very early case we must not be led to defer operation on account of a fairly high hemoglobin and red cell count, as the blood does not show the picture of anaemia for some hours after the occurrence of the catastrophe. To delay operation is, to put it mildly, dangerous. I have seen many patients, practically pulseless when put on the table, go safely through the operation, an intravenous saline solution being given while the operation was being done. Fortunately, the most important part of the operation, the arrest of the bleeding, is accomplished in a very few minutes. As soon as the peritoneal cavity is opened, the index and middle fingers of the left hand are carried into the cavity and after the fundus of the uterus is located the fingers glide along the upper border of the broad ligament and find the lesion; then, by grasping and firmly compressing the broad ligament to the pelvic side of the lesion, a good-sized curved forceps is placed and the hurry is over and the bleeding controlled. In general, the most serious cases are those where the rupture of the tube takes place at its junction with the uterus. This was forcibly impressed upon me a number of years ago during the lifetime of the late Dr. Henry Formad, a famous pathologist connected with the University of Pennsylvania and Coroner's Physician of Philadelphia County, who used to say that the cases of ruptured ectopic pregnancy occurring at the utero-tubal junction were cases upon which he operated, while those of rupture of the body of the tube were cases for the surgeon to operate upon.

Before these patients are removed from the operating table the free blood and the blood clot are washed out of the abdomen with hot saline solution and enough of the solution is left in the abdomen to fill it. This stimulates the splanchnic vessels, has a good effect upon the sympathetic plexuses, and does away with the likelihood of sapraemia if the blood clots are not removed. To wait for recovery from shock before operating is too often to wait for the patient to die. A ruptured ovarian blood cyst in the young girl is not always recognized as such. This matters little if the seriousness of the hemorrhagic condition is recognized and immediate operation resorted to. In our experience in the Lankenau Clinic very few cases of ruptured extra-uterine pregnancy have had to have blood transfusion, although many require infusion of normal saline solution. We never use the free blood in the peritoneal cavity for transfusion—we do not think it perfectly safe.

INDICATIONS FOR RADIOTHERAPY IN UTERINE LESIONS*

By WILLIAM P. HEALY, M.D., F.A.C.S., NEW YORK, N. Y.

RADIUM as you know was discovered by M. and Mme. Curie in 1902. Within a few years thereafter it was realized that the gamma rays thrown off by the element were very valuable in the treatment of cancer and it soon came into very general use for the treatment of external or skin cancer.

The surgical treatment of cancer of the uterine cervix in the early part of this century was in a bad way. Simple cauterization of the lesion with the actual cautery, amputation of the diseased cervix with the cautery knife, vaginal or abdominal hysterectomy were all being tried but to no avail because of the rarity of early diagnosis.

The lesion almost invariably had extended beyond the uterus before it was recognized.

Wertheim in 1895 had developed his special operation, the plan of which was to remove by the abdominal route, not only the entire uterus and the adnexae but also the infected regional lymphatics and parametrial lymph nodes. This was a very serious operation, required considerable time, was associated with severe shock and very unpleasant postoperative complications and unfortunately a high operative mortality. In Wertheim's first one hundred cases 30 per cent died from the operation and it was difficult for even the most skilled operator to reduce the primary mortality below 20 per cent. Moreover only about one third of the cases seen were regarded as favorable for operation, the remaining two-thirds were given no worthwhile treatment and the picture closed for them very quickly.

Faced by such a distressing situation gynecologists throughout the world were quick to grasp at the possibility of help offered by the action of radium on tissues.

By 1913 medical literature began to contain many worthwhile articles from specialists of experience and distinction in Europe reporting cases of carcinoma of the cervix and vagina that had been regarded as beyond the hope of surgical treatment and nevertheless had responded remarkably well to the application of radium.

Naturally the cases on which this treatment was tried at first were the advanced cases. However, the response to treatment was so gratifying that soon earlier and more favorable cases were given the same treatment and finally cases that formerly would have been regarded as suitable for the Wertheim hysterectomy were instead treated by radium with or without x-ray treatment as well.

From 1913 the leading gynecologists throughout the world began to omit hysterectomy from the plan of treatment for carcinoma of the uterine cervix. Nevertheless there is still an operator here or there who cannot refrain from hysterectomy despite the poor statistics which accompany it.

Weibel of Vienna who was Wertheim's assistant and is probably the best exponent of the radical abdominal hysterectomy that we have today reports that he is able to treat about 47 per cent of the cases he sees by operation and of those treated he reports 43 per cent of five year cures, but he entirely ignores his primary mortality of 16.6 per cent.

His figures actually show that five years after operation he can trace only 18 per cent of the cases operated on.

What has radiotherapy to offer against this?

In the first place the difficulty of making an early clinical diagnosis is not the serious handicap to radiotherapy that it is to the surgeon. In very few cases is it impossible to offer the patient some help at least temporarily with radium or x-ray.

Moreover the important fact must not be overlooked that in general the squamous epidermoid carcinoma that starts in the cervix is or tends to be a radio sensitive tumor and may respond to treatment much better even when clinically very advanced than one would dare to hope.

It must be borne in mind I repeat that with radiotherapy we treat practically all but the most hopelessly advanced cases whereas only one third to one fourth of the cases applying for treatment could be operated on surgically.

If we divide our cases into an early or favorable group in which the gross disease is restricted to the cervix and a less favorable or so called borderline group in which the disease has passed somewhat beyond the cervix to the adjoining vaginal fornix or parametrium, and a third or advanced group in which the disease has passed well beyond the uterus and there are definite metastases in the broad ligaments, we can discuss our results intelligently and compare them with those of the surgeon.

Statistics based upon results of less than five years duration are not of great value, therefore, our statistics refer to five year results.

Our early or favorable group is the one which corresponds to the operative group of the surgeon, 64 per cent of the cases in this group are alive and in good condition as against 23.7 per cent of Weibel's cases.

In our borderline group 38 per cent are in good condition.

Our advanced group shows 16 per cent in good condition and this we regard as a remarkable achievement for it is safe to say that very few of these cases had more than a year of life ahead of them without radiotherapy. Just as important is the fact which should always be borne in mind, that there is no mortality associated with the treatment.

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* Read at the meeting of the First District Branch of the Medical Society of the State of New York, October 20, 1927.

We feel that these statistics place a very severe burden upon any surgeon who continues to treat cancer of the uterine cervix by hysterectomy.

On the other hand cancer of the uterine body is different in histologic type from cervical cancer, is of the glandular or adeno carcinoma variety, is usually slow in leaving the primary focus, does not always respond well to treatment with radium, occurs chiefly after the menopause, can be completely removed by operation and at the present time is best treated by complete hysterectomy.

So much for the malignant lesions of the uterus.

The benign conditions which are amenable to radiotherapy are the so-called idiopathic or myopathic uterine bleeding cases and the fibromyomata.

The myopathic bleeding cases occur chiefly in the years associated with the menopause and at a time when endocrine imbalance readily occurs. However, careful pelvic examination reveals no lesion except possibly a somewhat softened and heavy uterus, a curettage obtains considerable mucous membrane of the hyperplastic glandular endometrial type. Radium applied within the uterus in these cases is a specific and seldom requires a second application.

Diagnostic curettage should always be done so as not to overlook a possible cancer. If radium is not available x-ray may be used after the curettage. Excessive or prolonged menstrual bleeding at puberty or within the first year or two of menstrual life is not uncommon and will respond as a rule to general medical measures and endocrine therapy. In the more obstinate cases the patient often has to be kept in bed for some weeks before the bleeding is controlled by these measures. Occasionaly despite the utmost effort and care the bleeding will continue to be excessive and it will be evident that something more radical must be done. Under such conditions I believe it is advisable to recommend curettage which will usually clear up the situation providing the other measures are continued.

Very rarely one will meet with an obstinate and persistent case in which even the curettage does not correct the disturbance, under those conditions I believe one may justifiably give a small dose of radium applied within the uterus but for a dosage of not more than 200 to 300 milligram hours. Great care should be exercised in the use of radium in these young girls for the uterus is usually rather small and both ovaries lie close to the posterior uterine wall and are well within the reach of the gamma rays from the radium.

In the treatment of uterine fibroids a definite and valuable field of usefulness has been established for radium alone or in combination with x-ray. There are, however, definite contraindications to the use of radiotherapy in the treatment of these tumors.

Briefly they are as follows:

The tumor or the uterus with the tumors should not be larger than a size corresponding to a four months' gestation, there should be no evidence of adnexal disease, nor should there be any suggestion of degenerative changes in the tumors. The fibroids should not be of the pedunculated type either subserous or submucous.

Radium in my opinion is not desirable as a method of treatment for fibroids in women who are under 35 years of age unless there is some constitutional contraindication to surgery. The dosage necessary to control the growth of the ordinary tumor in a young woman would inevitably affect the ovarian function and would tend to bring on an artificial menopause. In these women it seems much better judgment to remove the tumors by myomectomy if possible or if necessary by supravaginal hysterectomy but conserving the adnexae. The risk of the operation is practically nil and the results of surgical treatment in young women are infinitely better because of the preservation of the ovarian function.

There is also a type of individual in whom radiotherapy is contraindicated because the psychology of the patient is such that she is not content unless the tumor has been surgically removed. It is evident from the preceding remarks the cases best suited to the treatment are those in which the utmors are small, intramural, unassociated with evidence of inflammatory disease and in which the patient's age is 40 years or more.

It is interesting to note that when one has radium available for the treatment of these tumors that many opportunities are found to use it with advantage to the patient, from the standpoint of minimum risk of operation, reduction in size of tumor or its complete disappearance and the relief of symptoms from the tumors. It is nevertheless my opinion that more patients with fibroids are treated to advantage by operation than by radiotherapy.

Occasionaly there is a patient who is suffering from the annoying symptoms of fibromyoma and who should ordinarily be treated by operation but who has an intense horror of major surgery, such a patient as well as one in whom the tumors are complicated by serious cardio renal or other constitutional lesions can frequently be treated with radium or x-ray to advantage. In conclusion then one may say that a distinct field in the therapy of uterine lesions has been developed for radium and x-ray.

EDITORIAL

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For list of officers of County Medical Societies, see November 15 issue, advertising page xxviii.

FULFILLED IDEALS

The New York State Journal of Medicine completes the twenty-seventh year of its publication with this issue. It was established on January 1, 1901, by the New York State Medical Association, and was continued by the Medical Society of the State of New York after January 1, 1906, when the two state societies were merged.

This Journal has retained its original plans and policies unchanged, because its originators rightly judged the aspirations of the physicians of New York State. The name of one founder, Dr. E. Eliot Harris, appeared on the official board of the first volume and of many other volumes up to the end of the past year. Dr. Harris lives to see the ideals, which to him and his co-workers were prophetic visions, evolved into actualities with the naturalness of a child coming into the fullness of its manhood.

MOUNTAIN PEAKS OF MEDICAL PROGRESS

Progress in medicine is dependent on organizations, for without them every item of medical knowledge would die with its discoverer. The distribution of knowledge is dependent on an organization, such as teacher with a group of pupils, or a writer with a group of readers.

Modern societies of physicians are organized in order to promote two objects:

1. The science of medicine.
2. The art of medical practice.

Scientific medicine emphasizes the disease which a patient has. It deals with the cold facts of physics, chemistry, physiology, anatomy and pathology. Examples of organizations dealing primarily with the scientific aspects of medicine, are the medical school, the research laboratory, the academy of medicine and the scientific congress.

The art of medical practice considers the patient as a person who is to be relieved, if possible, and comforted always. One who practices the art of medicine lights the torch of knowledge at an altar in a temple of medical science, and carries its beneficent rays into the homes of those who sit in the shadow of death. The practice of the art of medicine is a personal matter depending on the cooperation of two individuals—the doctor and the sick person. Examples of organizations which place the emphasis on the person rather than the disease are the staff of the hospital, and the medical society of the county, the state, or the nation.

The activities of the Medical Society of the State of New York have been principally along the lines of the art of the practice of medicine. It has left the discovery of new facts and methods to the research laboratories and the academies of medicine, but it has taken the new facts and methods and brought them to the attention of the physicians throughout the state. Its two ideals are:

1. Every member shall have access to the medical knowledge that is developed by the research laboratories.
2. Every person shall have the desire and means to avail himself of medical service.

Medical service may be considered as a commodity.

Scientific medicine is produced by research workers in laboratories and academies of medicine.

Practicing physicians are the salesmen who distribute that knowledge to the people.

The people are the buyers and users of medical service.

Physicians are the producers and reservoirs of medical service, and are charged with the same responsibility that devolves upon the salesmen of a factory—that of rousing the people to desire to have what the doctors are distributing, and of educating them how to use it when they get it. If physicians do not spread a knowledge of the value of their services, the people will patronize the cultists and quacks whose wares consist entirely of promises impossible of fulfilment.

Medical progress consists in raising the level of medical knowledge and practice. The usual course in the progress in any line is that an individual or group of original thinkers raises a branch of knowledge into a hilltop or mountain peak, towering above the knowledge possessed by the rest of the doctors; and then comes the slow task of bringing the knowledge of the other physicians and the people up to that height. The tableland of usual medical practice today is above the mountain peaks of knowledge of the half century ago, and the present peaks will be more deeply submerged in the future.

It has hitherto taken five or ten years to raise the knowledge of doctors up to the level of the peaks attained by the few; and a quarter of a century or more to raise the peaks of knowledge possessed by educated laymen up to the level of the tableland of knowledge of the average doctor. But during the past few years the Medical Society of the State of New York has put forth special efforts to speed up the rate of the distribution of knowledge from its fountainhead in laboratories and hospitals, to both practicing physicians and the people.

The past year has seen new peaks of progress raised by the State Society and new levels attained by the county societies. The progress has been along the three lines of production, distribution and utilization.

The outstanding peak attained by the State Society in the production of new ideas during the past year has been that of the leadership of the medical profession in all lines of the practice of public health and civic medicine. This idea was only timidly expressed as an aspiration ten or fifteen years ago. It was proved feasible and necessary by a few pioneer county societies, and has been loudly proclaimed during the past year, largely as the result of the action of the Cattaraugus County Medical Society, and the activities of the Committee on public relations of the state society.

A high peak of progress in the distribution of medical knowledge was raised in 1924, when the committee on Public Health and Medical Education announced a system of graduate education in which instruction was taken to the doctors in a few rural counties. The continuation of the work of raising the level of medical knowledge in other counties has gone on actively during the present year. The courses which have been given in several counties have not been intended to produce specialists in any line; yet their result has been to indicate the newer means of diagnosis and treatment and to show how they may be obtained in time of need. The courses have revealed the peaks of medical knowledge to a large group of physicians, and have inspired family doctors to raise the level of their medical practice.

The utilization of the means of preventive medicine have been exemplified with striking success in the anti-diphtheria campaign which has reached its highest point during the past year. The mountain peak of knowledge of the protective value of toxin-antitoxin was raised over a decade ago, but the level of the medical plains and valleys was not perceptibly raised until about three years ago when the State Medical Society and the State Department of Health started a joint campaign for educating the doctors to give the immunizations to school children and parents to accept them. The past year has seen a widespread cooperation of physicians and laymen in giving the immunizations in every part of the State, until communities have striven among themselves in a rivalry as to which should have the least diphtheria.

The mountain peak of progress in the preventive medicine raised by the anti-diphtheria campaign has stimulated physicians to undertake other lines of preventive medicine in order to raise the standard of medical knowledge among laymen as well as practicing physicians.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

This JOURNAL of December, 1907, twelve years after the discovery of X-rays was first announced, has an article on “The present status of the Roentgen Rays” by Arthur Holding, M.D., of Albany, in which he says:

“Gone are the days of expensive experimenting as regards the type of machine to use; the days of dispute between the champions of the coil and the static machine; the days when we were content to listen to the seductive assurances of the electrical salesman followed by the failure of the machine to make good in our hands. Gone are the days of an X-ray room crowded with cumbersome apparatus; the days of fluoroscopic examinations; the days of X-ray burns; the days of 15-20 minute exposures.

“The surgeon who today says that the X-rays are unnecessary, that his “tactus eruditus” can tell him all that the X-rays could, “and more too,” has taken his place with those who prefer to judge temperature by the hand rather than by the clinical thermometer, the blood by the pulse, rather than by the microscopical examination; and with the devotees of “laudable pus.” The older methods have their value—long may they live—but the newer methods also have their value. To admit the value of one is not to deny the value of the other; long may they live together in the armamentarium of the progressive medical profession.

“Radiography bears all the ear marks of a clinical laboratory method, *i.e.*, the required instruments are costly and delicate, they require an operator with technique to get satisfactory results, X-ray observations are of clinical value to the general profession; their therapeutic value is occasional rather than general, and should not be magnified. Clinical pathology and clinical bacteriology, especially the examination of throat cultures for diphtheria, have been conducted most practically in the public laboratory, accessible to all members of the profession, conducted by competent men, its processes available for student instruction; and so also will radiography yield more scientific results under similar surroundings.

The Roentgen rays are still the X- or unknown rays, although the generally accepted theory is that the wave lengths of this light are far shorter and their rate of vibration far more rapid than those of ordinary light. These short waves of light are destructive to the human oragnism, as witnessed by the development of carcinomata, and azoospermia among the X-ray operators. Therefore, today, the radiographer avoids all exposure to the rays. This has led to the passing of direct fluoroscopic examination.”

MEDICAL PROGRESS

Insulin in the Treatment of Certain Hepatic Affections.—J. Bamberger, of the Berlin City Hospital (Friedrichshaim) begins his article with the theoretical significance of insulin for diseases of the liver with special reference to the glycogenic function. In combination with glucose it has produced surprisingly favorable results on several of the serious organic diseases of the liver, both common and unusual. Under the latter head the author calls special attention to hepatic lesions which develop in the course of certain poisonings, notably phosphorus and toadstool. Years ago it was shown that intravenous glucose infusion was the sole remedy which could control the symptoms of poisoning by fungi (although a cure is not expected) and it is quite probable that the addition of insulin would give a further favorable effect. Recently the author had the opportunity to treat a case of acute phosphorus poisoning with this combination, the patient having swallowed rat poison with suicidal intent. The patient was under treatment in the hospital for nearly three months before he could be discharged cured. Phosphorus was abundant in the washings of the stomach and the clinical picture was complete with the occurrence in the urine of leucin and tyrosin. On discharge not only was the urine normal but tests showed that there was no hepatic insufficiency. A persistent tendency for the symptoms to reappear after improvement was persistently antagonized by a return to the treatment. — *Deutsche medizinische Wochenschrift,* September 30, 1927.

Insulin in Underweight.—Schellong and Hufschmid of Professor Schittenheim's Clinic for Internal Medicine, University of Kiel, sum up the progress in this direction while at the same time giving the experience of their own clinic. Their management consists mainly in the combination of small doses of insulin with timely feeding with carbohydrates until a stationary weight is attained. If greater weight is desired it may then become a question of giving larger doses of insulin. The substratum of carbohydrate food upon which the insulin can act is a prerequisite and if for any reason this is not forthcoming the desired result will not be obtained. Just before and after an insulin injection the patient receives special rations of easily assimilable carbohydrates, as bread with honey or sugar and even pure lump sugar. The class of patient to benefit by this treatment is affected with constitutional leanness and small appetite, conditions which point to insufficiency of the Langerhans islets of the pancreas. The effects of the first injections—even at times of one injection—may be striking. The islets show their stimulation by setting up an intense hunger whereupon large quantities of carbohydrate foods are demanded. The patient is not only hungry at meal times but between meals. Water retention is promoted and weight is put on rapidly. A condition of equilibrium is reached toward the close of the second week, as apparently the subject becomes in part habituated or immunized against the further action of the insulin. Most authorities have employed larger doses than the authors because the intention is always to give but few injections; at Kiel, however, the rule has been to give only two injections of 10 units each at the outset; then if the result warrant the same doses may be given indefinitely, week after week, and it is not necessary to increase the dose although this possibility may come up later.—*Klinische Wochenschrift,* October 1, 1927.

Ferrán's Doctrine of Tuberculosis and the Antialpha Vaccine.—Dr. Martin Salazar refers to the commanding position of Ferrán in Spain as a sanitarian, phthisiologist, bacteriologist and immunologist. He has been at work for many years on the problem of tuberculosis—he in reality is a contemporary of Koch himself—and has reached various conclusions which are not in entire harmony with those of the medical profession. For some unknown reason his views are too little known to the world at large. One of these has reference to peculiar mutations of the bacillus which result in harmless as well as pathogenic forms. He has isolated numerous strains which he distinguishes by letters of the Greek alphabet, as alpha, delta, epsilon and so on. Some of these are resistent to acids, others not. The original microorganism, the alpha bacillus, is of the latter type. Inoculated into animals in pure culture it causes the formation of tubercles. The mutations may be divided further into ascending and descending—progressive and regressive—the former comprising the alpha, beta and gamma forms. It is the alpha form which prevails extensively in nature as a saprophyte and parasite. It attacks the young by thousands but by reason of its mutations certain phenomena develop, through which it loses some of its characteristics, including virulence. Differences are evident in the toxic products, for while some toxins cause inflammation and antibody formation—in other words are allergic—others containing lipoids are without this action. In its mutations the bacillus goes through a cycle, for the epsilon bacillus at the end of the series mutates back into the alpha form, both being non-acid-resistant. The anti-alpha vaccine of the author is prepared from these two forms jointly. This has passed the experimental stage, for it has been in use since 1920 and during this time as a result of attempts at immunization, the mortality from tuberculosis in the Foundling Hospital at Buenos Aires, so the writer states, has now been reduced to zero.—*El Siglo Medico,* September 24, 1927.

Vaccination of the Newborn Against Tuberculosis.—B. Iakhnis states that inoculation of the newborn with Calmette's serum was begun at Kharkoff toward the middle of September, 1925. Nineteen months later he is reporting progress, on behalf of the Ukraine Commission which is sponsor for the movement. The latter was not sanctioned by the Commission until after due investigation on animals. Newborn to the number of 300 in the three maternities of Kharkoff were the first subjects, the full consent of parents having been obtained. The tuberculous gravidæ and those who lived in contact with the disease in their families were indicated in advance, although unfortunately there were numerous cases which went unrecorded through defective organization of the movement. Preference was always given to children most exposed to the disease. Enough other newborn were vaccinated to bring the gross total up to 472 during the space of 18 months, and of this number 26 died of the ordinary diseases of nurslings while 42 others were lost from observation. The number available for statistics is, therefore, 402 of whom 156 had not been in known contact with the tuberculous, 112 had been in contact with suspects only, 95 with active tuberculous subjects, and 41 with subjects with continuous or intermittent open lesions. Of the 26 deaths mentioned above only one was from tuberculosis. The other causes of death comprised acute intestinal disorders (10), grippe-pneumonia (7), and scattering, with but one case set down to unknown cause. This mortality of one tuberculous death in so many children over so long an interval is strikingly low. No ill effects from the vaccination have been seen. The children are shown to have developed within normal limits, over 92 per cent. being free from all dystrophies. The only method of checking up thus far has been the tuberculin reaction which has been practised on a limited number, positive reactions being 10 times as common as in the unvaccinated. Naturally there will have to be a survey of a large number of unvaccinated newborns as a control.—*Annales de l'Institut Pasteur,* October, 1927.

A Clinical Study of the Alkali Treatment of Scarlet Fever.—E. H. J. Berry quotes from the literature evidence proving that alkalis very considerably lower the incidence of nephritis. The records of 2,819 cases of scarlet fever show that scarlatinal rheumatism and albuminuria are related to the extent of 27.5 per cent., while scarlatinal rheumatism and endocarditis are related to the extent of 17.3 per cent. Since albuminuria and rheumatism are so strongly related, and the incidence of nephritis can be lowered by the alkalis, it is reasonable to suppose that the incidence of scarlatinal rheumatism can be appreciably lowered by the alkaline treatment. If the incidence of scarlatinal rheumatism can be appreciably diminished, it follows that the incidence of cardiac complications can be lessened. Proceeding on the basis of this argument, Berry has become convinced of the beneficial effects of alkalis in toxic cases of scarlet fever, and believes that all cases of this kind should be treated in a similar manner. He reviews the first 100 unselected cases treated by alkalis; of these only one developed albuminuria and one albuminuria and rheumatism while on alkalis. The mixture given contained 40 grains of potassium citrate and 40 grains of potassium bicarbonate to the ounce of water. In toxic cases treated energetically with alkalis a marked change occurs in from 24 to 36 hours. The urine no longer gives a ferric chloride reaction; the tongue becomes moist; the rash becomes vivid; delirium disappears, and the temperature falls by crisis. If the child cannot swallow, the alkalis must be given by rectum. The quantity of alkali required to render the urine alkaline in a toxic case is surprising; one child, aged 5, required 640 grains in 24 hours. Berry has not seen such a marked benefit as that portrayed above from the use of serum.—*Lancet,* October 22, 1927, ccxiii, 5434.

Diphtheria Gravis.—H. Schmidt, director of the Behring Institute at Marburg, says that within the past year there have been very severe cases of diphtheria in Berlin and other large cities which have caused the fear that the disease is about to undergo a recrudescence with all of the old malignancy of fifty years ago. In some of these cases the serum appeared to be deficient in antidoting properties. In regard to the claim of mixed infection with streptococci as the cause of malignancy the author states that he saw the slides from nine of these patients in the Rudolf-Virchow Hospital, Berlin, and that all showed the diphtheria bacillus in pure culture. The strain of bacilli was quite malignant to guinea pigs and the autopsy finds on the human patients were characteristic of diphtheria. The author therefore repudiates the mixed infection hypothesis; and as a matter of fact it has always been impossible in the laboratory to enhance the virulence of the diphtheria bacillus by mixing it with other virulent organisms. The problem of the moment is to prepare a serum from this particular strain of the bacillus; also perhaps, to prepare a polyvalent serum if any other organism is really able to increase the virulence of the toxin. Still more important is the induction of the toxin-antitoxin active immunization which is being successfully carried out in both Great Britain and the United States but which — no one knows why — still hangs fire in Germany. There is also a likelihood that the doses now given, large though they be, may be too small. — *Deutsche medizinische Wochenschrift,* Oct. 21, 1927.

Diphtheria, Septic Diphtheria, and Septic Angina with Diptheria Bacilli.—Professor H. Dold sums up an article wtih the above title as follows: Acute tonsillitis with presence of diphtheria bacilli is not always diphtheria. This association may mean one of three possibilities—true diphtheria, mixed or septic diphtheria, or a septic or toxic angina in which diphtheria bacilli are accidentally present. From the practical angle, however, we cannot uphold this distinction and in any angina with presence of diphtheria bacilli one should notify, isolate, and give antitoxin. The latter produces a strikingly positive effect in true uncomplicated diphtheria, while in the mixed form the action is restricted, and in the third form no direct action should result. Apparent antitoxin failure means that the disease was of the second or third type or both conjoined. It is important to make a correct diagnosis but this is possible only through repeated cultures by which we may isolate the actually virulent organisms. When other organisms are associated with the diphtheria bacillus, we should never regard them as accidentally present. Among the pathogenic microbes which are found in this association are streptococci, staphylococci, B. coli, B. pyocyaneus, the Friedlander group, and several other less known organisms. The author reports five cases in which the streptococcus and staphylococcus were both present, although in three of them the staphylococcus was avirulent. Both organisms were shown to be hemolytic in two patients. The constant presence of virulent streptococci in these cases explains both mixed diphtheria and septic sore throat in which diphtheria bacilli are present in avirulent state. However we must not take this presence of virulent streptococci as inevitable, for in exceptional cases we find highly virulent Friedlander (pneumo-bacillus) organisms, to say nothing of other possibilities.—*Deutsche medizinische Wochenschrift,* October 14, 1927.

A New Conception of Periodic Vomiting in Children.—Professor A. Uffenheimer of the Pediatric Clinic, Magdeburg City Hospital, gives a résumé of this affection from the French and American viewpoints, and admits that for some reason the Germans have been laggards in this direction. He appends a most exhaustive case history with röntgen controls and, although he has but few cases to generalize from, he believes that our knowledge of this condition must be partly rewritten. Thus an acidosis is not always present, but there is a spasmodic condition of the stomach which suggests tetany. Comparison with cases reported by Kerley of New York, Gerst, and others shows that acidosis may not appear until several days after vomiting and it is even suggested that the inanition and dehydration which result from emesis are themselves sufficient to cause the acidosis. In Kerley's case the stomach was thought to have been prolapsed but the röntgen picture agrees strikingly with that in the author's case. The stomach condition itself appears to be a development of secondary nature. The syndrome points to a vagus disturbance, and a spastic closure of the pylorus might account for the distention spasm and ptosis of the stomach with vomiting as a natural consequence. At present the evidences of acetone poisoning must be relegated to a secondary position and the first motive referred to an endocrinic and vagotonic condition associated with tendency to spasmophilia. The entire gastroenteric tract seems to be involved in the tetanoid condition, but spasm of the pylorus accounts best for the vomiting. The author does not mean to explain all cases of cyclical vomiting of children in this manner, for this crude symptom may also develop in other basic conditions. He is silent as to treatment tests and the possibility that this condition, if vagotonic, might yield to the Solanaceæ alkaloids, as in the case of sea sickness, etc.—*Muenchener medizinische Wochenschrift,* October 14, 1927.

Some Practical Points in the Treatment of Ringworm with Thallium.—After recounting the advantages of thallium epilation over *x*-ray epilation, J. H. Twiston Davies points out that thallium has a unique action on the hair of the scalp, and also on the sympathetic nervous system. It facilitates the passage of impulses through the synapses of the sympathetic nervous system, acting in much the same way as strychnine does in the central nervous system. The technique employed in the treatment of ringworm in children consists in weighing the child without clothing and administering a dose of thallium acetate to the amount of 8.75 milligrams per kilo of body weight. A fresh preparation of the drug is given in a solution of sugar and water. The hair is cut to about one-half inch in length, but no shorter. The head is washed on alternate days for six days and then daily. Infected areas are not interfered with, but the rest of the scalp is rubbed with an antiseptic (non-mercurial) ointment after the daily shampoo. As soon as the hair is found to be loose, the infected hairs must be extracted one by one with lens and forceps. Depilated areas are painted with 4 per cent. tincture of iodine three times a day for four days. As soon as the scalp is quite bald, about the twentieth day, its entire surface is painted with the 4 per cent. iodine tincture three times daily for four days, and then rubbed with some non-mercurial ointment (e.g., ung. sulphuris) for three days. The iodine sequence is continued for three weeks, the scalp being examined once a week at least, and then discontinued in favor of daily rubbing with equal parts of oil of cade, vaseline, and lanoline until the new hair is well established. In the process of depilation care must be exercised to discriminate between infected stumps and new hairs, which appear about the thirtieth day. A cotton cap, changed morning and evening is worn during the entire period of treatment, and other precautions are taken to prevent the spread of the infection. Children in whom alopecia areata complicates ringworm are unsuitable for thallium treatment.—*British Journal of Children's Diseases,* July-September, 1927, xxiv, 283-285.

Cure of Warts and Condylomata by Suggestion.—J. Bonjour refers to the remarkable results recently reported by Professor Bloch of Zürich who cured 55 out of 109 cases of verruca vulgaris and 33 out of 38 cases of flat wart by this method. There is some chance for difference of opinion here as to the nature of the mental process involved, for it makes a considerable difference whether the physician uses simple suggestion in the restricted sense or affects the airs of a sorcerer and so makes the patient believe that he is the subject of a miracle. The present author, in his work along this line, makes use only of suggestion and has extended the treatment of these cases to include papillomata and condylomata. All of these four types of lesion are of a common nature. One patient with condylomata sent by a colleague had been "cured" once by röntgen treatment but had relapsed. Cautery appeared to aggravate and the patient presented numerous new formations on the lips and anus. In connection with suggestion in this case, the author, in taking the blood pressure, noted that a fall took place in the minima. This he puts forward as a mechanism by which suggestion acts on the growths through the circulation. It is said that the same result may be obtained by the local injection of ergotin or adrenalin or other vasoconstrictor, but the author thinks that suggestion certainly possesses advantages over these methods. In most cases patients who present these formations are hypertensives and at times come of hypertensive families. In fact, Bonjour knows of but two cases in which the tensive minima were normal. The author does not give the precise technique of suggestion applied, but states that the simple word suffices and that one session should be sufficient. While he has had 35 years' experience he learned of the mechanism only about ten years ago. He believes that suggestion ought to cure 95 per cent. of these patients.—*Schweizerische medizinische Wochenschrift,* October 8, 1927.

Superiority of Certain Bismuth Combinations as Antisyphilitics.—H. Müller and his associate Kohlenberger of Mainz, mention the present day enthusiasm of many practitioners over bismuth as a remedy for lues. This does not mean that mercury has become obsolete or arsphenamine underestimated. The competition is a useful and constructive one, for chemists are also seeking new forms in which to exhibit the older remedies. Bismuth therapy sustained an advance when the metal was rendered soluble in lipoids by lecithin addition, such a preparation being preferable to a suspension. Lecithin itself was tested as an antisyphilitic by Peritz in 1908. A form of bismuth which has been combined with lecithin is the iodo-bismuth-quinine combination and the resulting preparation appears to be from four to six times more powerful as a spirocheticide than the same without lecithin addition. Much work has been done with this combination by Hermann and Nathan. It is true that there have been a great many bismuth preparations and combinations on the market but the one under consideration represents a solution in place of a suspension, and according to its elaborators many of the habitual defects of the bismuth preparations have been minimized. The soluble combination can be injected into the muscles and hence the technique of intravenous administration with the coincident need of experts and hospital facilities is eliminated. There is neither pain nor after-pain. But two cases of stomatitis were seen in over 600 cases and the bismuth seam on the gums was present in light form. The advantages of the iodo-bismuth-quinine formula have already been shown independently and the oil basis of the solution remains quite clear.—*Münchener medizinische Wochenschrift,* September 2, 1927.

LEGAL

By Lloyd Paul Stryker, Esq.
Counsel, Medical Society of the State of New York

RECENT APPLICATIONS OF THE STATUTE OF LIMITATIONS TO MALPRACTICE ACTIONS AND COUNTERCLAIMS

Among the problems that confront the physician is the economic one of being compensated for services rendered. A physician oftentimes finds that after he has most conscientiously labored in behalf of a patient, payment for the services rendered is refused by the patient and a claim is made that the services were not either worth the amount asked by the physician, or that they were improperly rendered causing injury and damage to the patient.

Claims of this nature are presented by the unscrupulous patient, or those who are dissatisfied with the results of the treatment they have received, even when such result may be the natural, inevitable result of their injury or sickness.

To enforce the collection of his bills the physician must often resort to the institution of an action against the patient. It is a growing custom among some patients, in an attempt to thwart the physician and to avoid payment of his bill, when sued by the physician, to interpose a counterclaim of alleged malpractice, or else start a separate malpractice action and procure a stay of the trial of the physician's action to recover for his services until the malpractice action has been disposed of. A judgment in favor of the physician in the action instituted by him to recover for his services can be set up as a bar to a future action by the patient charging alleged malpractice in the performance of those services.

In a recent case a physician who had rendered services to a patient, and who after completion of the services, had sent numerous bills, was paid only a small part of his fee. His requests for payment being unanswered, he finally instituted a suit against the patient to recover the balance of his bill. After denying that the physician's services were worth the amount that he had requested, the patient in answer to the physician's action, interposed a counterclaim of alleged malpractice. She charged that the physician had undertaken to cure her of gall-stones from which she then suffered, but that through his negligence and carelessness he had diagnosed her malady as cystitis and treated her for such condition instead of diagnosing and treating her for a malady of gall-stones. The answer of the patient containing this counterclaim of malpractice was interposed to the physician's action more than two years after the services had been rendered by the physician. The physician in his reply to the counterclaim pleaded the two-year Statute of Limitations, which provides that an action for malpractice must be commenced within two years after the cause of action accrues. Thereafter, on behalf of the physician, a motion was made to dismiss the malpractice counterclaim on the ground that it was barred by the Statute of Limitations. In opposition to this motion the patient contended that as the cause of action contained in the counterclaim arose out of the same transaction or subject of transaction of which the physician's action to recover for his services arose, the two-year Statute of Limitations did not apply, but that the patient was entitled to the benefit of the same Statute of Limitations as was applicable to the physician's action, to wit: the six year Statute of Limitations. The lower court determined the motion favorably to the patient and denied the physician's motion to dismiss the counterclaim. The lower court in the course of its opinion said:

"The cause of action alleged in the counterclaim arose out of the original transaction upon which plaintiff bases his demand for judgment. If a cause of action survives to plaintiff from this transaction, then the defendant is entitled to assert any right or remedy that accrued to her from the same transaction. The legal effect of the transaction to the parties so far as they make demand in their pleadings must be determined. The rights and remedies of the same parties arising out of the same transaction cannot be divided and separated and some preserved and others cast out.

"When the plaintiff commenced this action he invited the defendant to take advantage of any infirmity that effected the transaction which is the subject of this litigation, even though defendant would be barred from instituting an independent action for the relief sought in the counterclaim."

If this decision had been permitted to stand, or was affirmed by an appellate court so that it became the law of this State, it would deprive not only physicians but others as well of a most valuable right; and no matter how long a physician might wait after the rendition of services before instituting an action to collect for such services there could always be interposed against such action a counterclaim of alleged malpractice. So that the effect of the decision would be to extend the Statute of Limitations from two years to six years, when the claim of alleged malpractice was interposed as a counterclaim. To determine the correctness of this decision we took an appeal to the Appellate Division which happily has reversed the order of the lower court and granted the defendant's motion dismissing the counterclaim.

The Appellate Division after reviewing the authorities upon which the decision of the lower Court was based said:

"The counterclaims in those cases, not only arose out of the contracts of the plaintiffs but were parts of those contracts. The plaintiff in each of those actions was attempting to sever the contract and to enforce part and repudiate the balance. It was simply held that the contract must be enforced in its entirety. The plaintiff was not at liberty to divide the contract and enforce a portion thereof favorable to himself, but was required to stand or fall on the entire contract."

With respect to the answer of the defendant denying the value of the services rendered, it was held that the defendant under such denial may prove the alleged malpractice of the plaintiff to show that the services were not of the reasonable value claimed by the plaintiff.

In its decision the court construed the application of a section of our Civil Practice Act which provides:

"A cause of action other than for the recovery of real property, upon which an action cannot be maintained as prescribed in this article, cannot be effectually interposed as a defense or counterclaim."

On behalf of the defendant it was contended that the provisions of this section gave an unfair advantage to the plaintiff and permitted him to prosecute his cause of action, although a counterclaim in favor of the defendant arising out of the same transaction or subject of action was barred by the Statute of Limitations. It was further contended that the provisions of this section should not be held to apply to counterclaims of this nature.

In answering this contention of the defendant the Appellate Division said with reference to the above section of the Civil Practice Act:

"Its phraseology could not be more comprehensive. It not only outlaws a counterclaim but also a 'defense.' A cause of action barred by the Statute of Limitations cannot be interposed as a *defense* or a counterclaim. * * * The language of Section 61 is sweeping and the intent thereof seems fairly to have been to outlaw all defenses or counterclaims pleaded, as such which could not be the subject of an affirmative action."

By this decision of the Appellate Division there is preserved to the physician the right to plead the bar of the Statute of Limitations when a malpractice claim is interposed as a counterclaim to an action for services rendered where the cause of action contained in the counterclaim did not accrue within two years prior to the assertion of the counterclaim.

In instances where physicians have not been paid for their services rendered, and where the result of their treatment has not been up to the expectations of the patient, or where the patient is dissatisfied with the services and there is a likelihood that in the event the patient is sued to recover for services rendered there would be an assertion of a counterclaim of alleged malpractice, it would be wise that the physician wait until at least two years after the rendition of his services before instituting suit against the patient, so that in the event that a counterclaim is interposed the two-year Statute of Limitations may be pleaded in bar to such counterclaim.

Statutes of Limitations are not new in our system of jurisprudence, and we have had such statutes limiting the time within which various types of actions can be commenced for hundreds of years. The purpose of such statutes is to restrict the period within which the right of action, otherwise unlimited, might be asserted. Such statutes have been founded in part at least on the general experience of mankind that claims which are valid are not usually allowed to remain neglected, and that the lapse of years without any attempt to enforce a demand prevents a judgment against its alleged validity. The object of Statutes of Limitations is to suppress the assertion of stale claims when all the proper vouchers and evidence are no longer in existence, or the facts have become obscure through the lapse of time, defective memory, death, or the removal of witnesses.

The patients who feel that they have been aggrieved by the services rendered them by a physician have at times resorted to various means to circumvent the Statute of Limitations where they have delayed longer than the statutory period in the commencement of a malpractice action.

In one instance a plaintiff had been under treatment of a physician from the 3rd of June to the 20th of July, and in a malpractice action instituted against the physician two years from the following September, it was charged that through the negligence of the physician and in the course of his treatment a needle broke and was permitted to remain within the patient's body. In answer to this claim on behalf of the physician a motion was made to dismiss the complaint on the ground that more than two years had expired since the cause of action stated in the complaint had accrued, and that therefore the same was barred by the Statute of Limitations.

On behalf of the plaintiff it was contended that the tort or wrong of the physician was a continuing one in that each day that he treated the plaintiff and failed to remove the broken needle a new claim arose in favor of the patient.

In determining the motion favorably to the physician and in passing upon the plaintiff's contention, the Court said:

"The wrong complained of was the failure of the defendant to perform a certain duty which he owed to the plaintiff. The question therefore arises how long that duty continued. It cannot be urged that the duty exists at present and that it will continue indefinitely until the cause of action abates by the death of either of the parties. If the contention of the plaintiff were sound the Statute of Limitations could not at any time be invoked as a bar to this action. It is more reasonable to assume that the duty, regardless of the question whether or not a failure of performance constituted actionable negligence, continued throughout the period of the treatment by the plaintiff at the hands of the defendant, and the latest period at which it could be expected that such duty would be performed and where failure of performance might constitute negligence was the occasion of the final treatment of the plaintiff by the defendant. Under the circumstances it seems that although the plaintiff's contention that the tort continued beyond the first day of June is good, the facts indicate that the tort did not continue beyond the 20th day of July, which was itself more than two years before this action was brought. It is the opinion of this court that although the tort continued to July 20th, it did not continue beyond the date, and that on the latter date the cause of action of the plaintiff accrued, and that the Statute of Limitations as sought to be invoked herein clearly applies."

In another instance, a patient suffering from a duodenal ulcer had consulted a surgeon. Nearly five years had elapsed from the time of the surgeon's treatment of the patient until the bringing of a malpractice action. In his complaint the plaintiff sought to charge the defendant with a breach of contract, hoping thereby to avoid the two-year Statute of Limitations applicable to malpractice actions, and invoke the six-year Statute of Limitations, applicable to contract actions.

In his complaint the plaintiff alleged that at the time he consulted the physician and surgeon he was suffering from a duodenal ulcer, and that he entered into an agreement with the surgeon wherein and whereby for the consideration of one hundred and fifty dollars, to be paid to the surgeon, the surgeon agreed to perform a surgical operation for the removal of the duodenal ulcer. The plaintiff alleged that he performed all the provisions of the contract upon his part to be performed, but that the defendant surgeon failed and neglected to perform his part of the agreement in that he failed and neglected to remove the duodenal ulcer from the body of the plaintiff, permitting it to remain therein, and instead removed the appendix. In his complaint the plaintiff sought damages for pain, suffering, mental anguish and moneys claimed to have been expended for other medical and surgical care. He also claimed that he was prevented from attending to his usual vocation for a long period of time. To this cause of action a motion was made to dismiss the complaint on the ground that it stated a cause of action of malpractice, and that it was barred by the two-year Statute of Limitations. The plaintiff contended that his action was not one of malpractice but one for breach of contract, and that the six-year Statute of Limitations applied. The lower court denied the defendant's motion to dismiss the complaint. An appeal was taken by the defendant to the Appellate Division. That court examined the allegations of the complaint and said:

"While in the complaint now under consideration neither lack of skill nor negligence is charged, the basis of the charge is 'improper performance' of the work to the personal injury of the plaintiff."

It was further held by the Appellate Division that the damages asked by the plaintiff, $50,000, for pain and suffering were not suited to an action for breach of contract, and in reversing the decision of the lower court the Appellate Division concluded:

"The nature of the charge of malpractice is not changed by failing to sufficiently state it in necessary detail; or by putting it in language suitable to the statement of a cause of action on contract, omitting the usual allegations as to the absence of skill and negligence."

From these recent decisions it will be seen that there has been preserved to the physician valuable rights in opposing and successfully defending malpractice actions or counterclaims which have not been instituted within two years after the cause of action accrued.

NEWS NOTES

CLINTON COUNTY

The Annual Meeting of the Clinton County Medical Society was held on October 18, at the City Hall, Plattsburgh, N. Y., and was preceded by a luncheon at the Witherill House at which sixteen were present. Dr. G. R. Allen, the President, called the meeting to order at two o'clock.

Roll call showed the following present: Drs. C. R. Hutchins, W. F. Brown, L. G. Barton, Jr., E. S. McDowell, G. R. Allen, E. W. Sartwell, L. G. Barton, F. K. Ryan, W. H. Ladue, H. C. T. McDowell, Leo F. Schiff, A. A. de Grandpre, T. A. Rogers, A. Schneider, I. A. Rowlson, W. U. Taylor, S. Mitchell; also Dr. E. R. Baldwin and Dr. F. F. Finney.

The following officers for 1928 were duly elected:

President, E. S. McDowell, M.D.
Vice-President, B. R. Webster, M.D.
Secretary, Leo F. Schiff, M.D.
Treasurer, F. D. Ryan, M.D.
Censors: Drs. C. M. Burdick, I. A. Rowlson, R. S. Macdonald.
Delegate: Leo F. Schiff, M.D.
Alternate, A. Schneider, M.D.

Dr. Schiff reported for the Milk Commission that one meeting had been held for organization at which time it was decided to add two members to the Commission; that Dr. Allen had appointed Drs. Mitchell and Taylor as additional members; and that the Commission had appointed a Veterinarian and an Examining Physician, and was now awaiting the application of producers to have their milk certified.

Dr. Schiff addressed the meeting in regard to the post-graduate instruction about to be undertaken by the Society in cooperation with the Committee of the State Society on Public Health and Medical Education.

The following scientific program was carried out:

1. Septicemia, Dr. F. K. Ryan, Plattsburgh, N. Y.
2. Septic Endocarditis, Dr. S. Mitchell, Plattsburgh, N. Y.
3. The Interpretation of Tuberculous Foci in X-Ray films; and their Significance; illustrated by lantern slides, X-ray films, and pathological specimens, by Dr. E. R. Baldwin, Saranac Lake, N. Y.

QUEENS COUNTY

A regular meeting of the Medical Society of the County of Queens was held at Eagle Palace, on Tuesday evening, October 25, at 8:30 P. M., President Joseph S. Thomas, M.D., in the chair, and 54 members present. Seven new members were elected.

Dr. F. G. Riley, chairman, reported for the Committee on Graduate Education that the course of Dr. Mencken was over subscribed; that there was one vacancy in the course of Drs. Steffen and Smith, and that relative to the course in Cardiology by Dr. Keet it had not been made clear that the course was being paid for by the Public Health Committee.

The scientific session opened with a paper by Dr. Walter A. Bastedo, M.D., on "Points in Gastro-intestinal Therapeutics," in which he reviewed the common conditions with which doctors have to deal, such as dieting, constipation, flatulence, putrefaction.

The paper was discussed by Drs. McMahon, Thomas, Barber, Sowers and Lint.

Dr. Martin L. Sowers presented a paper on "Mastoiditis" with lantern slide illustrations. In the course of the presentation anatomical specimens of mastoids were presented showing the anatomy of various types of operation.

The paper was discussed by Dr. Harriet White and Dr. Bastedo.

A collation was served at the close of the meeting.

E. E. Smith, M.D., *Secretary.*

MADISON COUNTY

The Madison County Society met on November first, at Oneida, N. Y.

The following officers were elected:

President, Dr. J. D. Boyd, Chittenango.
Vice-President, Dr. S. H. Raymond, Cazenovia.
Secretary, Dr. D. H. Conterman, Oneida.
Treasurer, Dr. Lavinia R. Davis, Oneida.
Delegate to State Society, Dr. E. L. Finley, Oneida.

The following resolutions were passed:

1. That Madison County Medical Society desires and recommends that vaccination against

smallpox be made compulsory for all school children of the State of New York.

2. The Madison County Medical Society favors County Health Organizations, but does not believe that the present County Health Unit plan as advocated would be suitable or ideal for Madison County, without further consideration of the matter.

President E. L. Finley gave a résumé on past, present and future activities of the Society, with special reference to the practice of public health and civic medicine.

Dr. Edwin MacFarland of Utica gave an interesting paper on "Methods of Urological Examination."

D. H. Conterman, M.D., *Secretary.*

SARATOGA COUNTY

The annual meeting of the Saratoga County Medical Society was held at the Homestead Sanatorium, Middle Grove, N. Y., November 2.

Following a bounteous dinner given by the Board of Managers and Dr. Asa Dimock, Superintendent, the scientific program was given.

Dr. George Beilby, Albany, N. Y., gave an interesting lecture on Goitre.

The following officers were elected:

President, Thomas J. Goodfellow, M.D., Saratoga Springs, N. Y.

Vice-President, F. F. Gow, M.D., Schuylerville, N. Y.

Secretary, R. B. Post, M.D., Ballston Spa, N. Y.

Treasurer, John W. Mabey, M.D., Mechanicsville, N. Y.

Delegate to N. Y. Convention, Earl King, M.D., Saratoga Springs, N. Y.

Alternate Delegate, J. MacElroy, M.D., Jonesville, N. Y.

Committee Minora, E. J. Callahan, M.D., Schuylerville, N. Y.; G. Scott Towne, M.D., Saratoga Springs, N. Y.; D. Mauro, M.D., Mechanicsville, N. Y.; M. J. Cornthwaite, M.D., Ballston Spa, N. Y.; L. A. Parmenter, M.D., Corinth, N. Y.

Censors, A. W. Porter, M.D., F. F. Gow, M.D., George Fish, M.D.

The applications of Dr. Mark D. Duby, Schuylerville, N. Y., and Dr. Asa Dimock, Middle Grove, N. Y., having been received and passed by the Board of Censors, they were elected to membership in Saratoga County Medical Society.

The report of the special committee to investigate defects among school children was read and approved.

R. B. Post, M.D., *Secretary.*

GENEVA ACADEMY OF MEDICINE

The third annual dinner meeting of the Geneva Academy of Medicine was held in the Hotel Seneca, Geneva, on the evening of Wednesday, November 9th. The attendance was 190 physicians and surgeons from Geneva and the surrounding territory, some coming from the neighboring county secretaries, and some from Syracuse, Rochester and Buffalo.

The program of the meeting was opened by Dr. Harry Trick of Buffalo, President-elect of the Medical Society of the State of New York. He brought the greetings of the State Society and congratulations on the excellent support shown by the members of this Academy, the latest one to be formed in the State.

Dr. George W. Crile of Cleveland, Ohio, gave an address on the "Clinical Aspects of the Goiter Problem." The discussion was opened by Dr. Martin B. Tinker, of Ithaca, and Dr. Donald Guthrie, of Sayre, Pa. The discussion was continued by Dr. W. D. Johnson of Batavia; Dr. A. B. Raffl of Syracuse; Dr. L. F. Simpson of Rochester; Dr. L. F. O'Neill of Auburn; Dr. A. K. Bates of Auburn; Dr. W. L. Wallace of Syracuse; Dr. E. C. Foster of Penn Yan.

Albert M. Crance, M.D., *Secretary.*

STEUBEN COUNTY

The Medical Society of the County of Steuben held its annual meeting at the Wagner Hotel, Bath, N. Y., on November 9th.

The election of officers for the year 1928 resulted as follows:

President, G. E. Taylor, M.D., Hornell, N. Y.

Vice-President, G. M. Parkhurst, M.D., Bath, N. Y.

Secretary and Treasurer, W. S. Cobb, M.D., Corning, N. Y.

Dr. A. H. Paine of Rochester, presented a paper on "The Management of Urological Problems Commonly Encountered."

Dr. E. W. Phillips of Rochester, discussed the "Surgical Treatment of Thoracic Diseases."

The Society appointed a committee to confer with the Board of Supervisors regarding the enlargement of the nursing service of the County.

I. W. Brewer, M.D., *Secretary.*

JEFFERSON COUNTY

The annual meeting of the Medical Society of Jefferson County was held on November 10, at which time the following officers were elected:

President, Byron Haskin, M.D.

Vice-President, W. W. Hall, M.D.

Secretary, Walter S. Atkinson, M.D.

Treasurer, J. E. McAskill, M.D.

Censors: W. A. Vincent, M.D., H. A. Hoyt, M.D., H. C. Montgomery, M.D., L. L. Sampson, M.D.

Dr. Charles Dwight Reid gave an address on "Common Orthopedic Conditions," dealing with the subject in a most instructive and practical manner.

Our retiring President, Dr. Olin, gave an address dealing with the ethical side of the practice of medicine and emphasizing the importance of cooperation between physicians. (This address will be printed in a future issue of this Journal —Editor's note.)

The Public Relations Committee is to be appointed, the first duties assigned to them are to investigate the matter of County Health Unit and to confer with the Public Health Committee and another committee appointed by the staff of the Mercy Hospital, to formulate a plan for a hospital or pavilion connected with one of our present hospitals to take care of all communicable diseases in the city and county.

Dr. Ebba Dederer, School Physician for Watertown, was transferred from the Ulster County Medical Society to our Society.

The meeting was very well attended and several out of town guests were present.

Walter S. Atkinson, M.D., *Secretary.*

KINGS COUNTY MEDICAL SOCIETY

The monthly meeting of the Medical Society of the County of Kings was held on Tuesday evening, November 15th.

The scientific part of the program was of great interest and consisted of two addresses. (1) "Development of Neurology in America—Personal Reminiscences" by Charles Loomis Dana, M.D., LL.D. Dr. Dana, from his rich experience in the field of neurology, reminisced about the many neurologists with whom he has collaborated during his many years of active work.

The second paper of the evening "A Neurologist Looks at Neurology" by Joseph Collins, M.D., was an equally interesting presentation of the subject of neurology, and was on a par with Dr. Collins' many books with which the medical profession is, of course, familiar. Rarely has a medical society had an opportunity for the historical, scientific and literary review of any branch of medicine such as was provided for the Medical Society of the County of Kings in its meeting devoted to Neurology.

The November meeting being the meeting for the nomination of officers, a full set of officers were nominated.

The President, Dr. Thurston S. Welton announced the anonymous gift of $2,500 a year toward the payment of an increase in salary to the Librarian, Mr. Charles Frankenberger.

MEDICAL WARES

CASTILE SOAP

Soap is the principal commercial product that is prescribed and used by physicians and hygienists; and soap, water and elbow grease form the triad of cleansing agents which keep the world clean and healthy.

The ordinary fats or oils which are used in soap making are composed principally of three fatty acids: 1, stearic, which melts at 157° F., and predominates in tallow; 2, palmitic, which melts at 143.6° F., is the principal one of palm oil and is a liquid at ordinary temperatures; and 3, oleic, which is the principal constituent of linseed oil.

Soaps partake largely of the physical properties of the fatty acids of which they are made. A soap made from tallow is hard; and one from linseed oil is soft. Hardness and softness also depend largely on the alkali that is used, soda producing a hard soap and potash one that is soft. The oleic acid soaps, such as those made from cocoanut oil usually lather easily, while those made from stearic acid produce lather that lasts well. Shaving soaps are therefore usually made from cocoanut oil and tallow.

Soap is made by two processes. The cold process consists in mixing the fat and alkali at a temperature just sufficient to melt the fat, and letting the mixture stand for a few days while the chemical action takes place. All the materials including the glycerine, water and impurities remain in the soap that is made by the cold process. Most commercial soap is made by the hot process, in order to recover the glycerine, which is a valuable by-product. In the hot process the mixture of fat and alkali is boiled, and then salt is added. Since most soap is insoluble in salt water, it floats to the surface leaving the glycerine in solution below it. Marine soap, which forms a lather with sea water, is made from cocoanut oil, whose soap is soluble in salt water to a greater extent than other soaps.

Soaps that float have had minute particles of air incorporated into their mass by agitation. The liquid soaps used in wash basins are perfumed solutions of soap in water.

Common laundry soaps contain a large proportion of rosin, whose chief constituent, abietic acid, unites with the alkali to form soap.

Transparent soaps are made either by adding glycerine, or by dissolving the soap in alcohol which is then removed. The cheaper grades are made transparent by the addition of five or ten per cent of sugar.

Soap has great power of combining with other substances, such as antiseptics, coloring matter and scouring material, and of masking their physical characteristics. The adulteration and imitation of the better grades of soap are therefore easy and are done on an extensive scale. Soap may be made from almost every kind of fat or oil of animal or vegetable origin. Purifying processes and the use of perfumes to mask unpleasant odors make possible the utilization of the grease derived from dead animals and decaying garbage. The gross appearance of soaps is no guarantee of their purity or quality; but a chemical analysis will reveal adulterations and impurities.

Since soap is a variable product, it is desirable that a standard form should be recognized. Such a standard is set by the United States Pharmacopoea. The pharmacopoea lists the standard soap under the technical term, sapo, and under the common term, soap. It further adds the descriptive term, "olive oil castile soap." The specifications are that this coap shall be made from pure olive oil to which sodium hydroxide is added in an amount just sufficient to combine with the fatty acids and yet leave no free alkali. This soap has a faint odor and taste which are pleasant and characteristic, and is the soap which is commonly used in dentifrices and tooth pastes, for in them purity and high qualities are peculiarly desirable.

The term castile soap has been applied to pure olive oil soap for hundreds of years, and a soap containing any other fatty acid than that from olive oil is not castile soap according to the Pharmacopoea. Physicians ordering castile soap for any purpose will do well to specify the U. S. P. product.

The Pharmacopoea lists a preparation of olive oil soap called linimentum saponis, which contains 60 parts of soap in 1,000 parts of a solution of camphor. This is the liniment which was kept in our grandfather's medicine closets and was called opodeldoc—a term invented by that scientific charlatan, Paracelsus, early in the sixteenth century.

The Pharmacopoea also lists saponis mollis, soft soap which is made from potassium hydroxide and cotton seed oil, but linseed oil was formerly used. This is the soap that is used in making linimentum saponis mollis, which is a 65 per cent solution of soap, and is the preparation that was formerly called tincture of green soap

THE DAILY PRESS

FAITH HEALING IN THE CHURCH

The daily papers of New York City give half an inside column once or twice a week to the faith-healing services conducted in the Calvary Baptist Church on West 57th Street, New York City, but they seldom give the reports space on the front page. The condition of the patients is shown by the following extracts from the *New York Herald Tribune* of November 8:

A young Italian girl, accompanied by her weeping mother, limped out of the anteroom, apparently no more improved in her paralysis than before the stocky gentleman had anointed her thin pinched legs, supported by braces.

A woman with goiter showed no visible relief though the preacher and his assistant had commanded the goiter to go. A crippled woman was apparently no better able to walk after the contact with oil and bay rum. A flush had not filled the cheeks of a consumptive.

On the other hand, a man, who said he was a Jew, and had come to the preceding service to be healed, testified that he had "forgotten about his kidneys." His complexion looked yellow and diabetic.

A man wearing smoked glasses walked up and said that his left eye pained him. The assistant made him close its lid, then applied bay rum and oil, which he continually shook in the small bottle.

"What about that pain now, brother? Praise God, eh brother. It's gone, isn't it?"

The man blinked vigorously for a moment then smiled and went back to his chair. Another woman with similar pain in her left eye, she said, came up to be relieved in the same manner. Then she announced that she could not kneel, which she did with apparent ease after application of oil.

Another woman came up to relate that her tonsils were troubled by a swelling. The assistant applied oil on her neck and told her that the pain had gone. Next came a crippled woman who admitted no relief after treatment and limped out of the room, though Dr. Straton, who laid his hands on her shoulders, assured her that she was all right.

A little girl with black hair and eyes, red from weeping, bit her lip in pain and grief while her Italian mother stood and wept and the healer applied oil.

The assistant with the bottle poured oil and bay rum into the ear of a man who said his memory was poor and that he was hard of hearing. He put his mouth close to the man's ear and spoke.

"You hear me better now, don't you?" he asked.

The sufferer grinned spaciously and nodded, then shouted "Amen."

Then came the woman with a goiter—then the consumptive.

"No tuberculosis germ can stand in the presence of God," the assistant said, applying oil on the young man's flushed cheeks.

The public health aspects of the healing services were discussed in the *New York Times* of November 12, by Dr. Louis I. Harris, Commissioner of Health of the City of New York, who is quoted as saying:

"Dr. Straton assured me that it was not his purpose to do anything to conflict with the public health laws or public health interest. He said that in a limited sphere he thought he could render a service in helping to heal certain types of cases that would be influenced by spiritual support and encouragement.

"Dr. Straton said that he gave no promise to any person suffering from disease that he could assure him health. He stated that he would go more fully into his relation with the medical profession and public health in his sermons."

DEADLY HUNTERS

While hunting is death to animals, it is also death to men. The *New York Herald Tribune* of November 28 prints a report of the Conservation Department of New York State that twenty-eight persons have been killed by hunters and seventy-one wounded in New York State during the month of October 15 to November 15, when deer shooting was allowed. The report says:

"This was the largest number killed or injured with the exception of 1925 when the total number of accidents was 115, with twenty-nine killed and eighty-six injured.

"Deer hunting annually takes an average of twenty lives, the department declared in a statement given out today. Fourteen hunters were killed by their own guns and twelve were killed by guns in the hands of companions.

"Seventeen met injury while shooting game birds and animals by the discharge of their own guns and thirty hunters were hurt by the discharge of guns in the hands of their companions. One guide, mistaken for a deer, was killed.

"In 1924 the shortest list of hunting accidents was noted, when the woods were closed for two weeks because of the danger of fire. This year it was reported more hunters were abroad than in any other year.

Comparing New York's hunting death rate with that of Pennsylvania, the *New York Times* of November 29 says editorially:

"Pennsylvania, with a smaller population than New York, always has more casualties. In 1925 forty-five hunters were killed and about two hundred were wounded. In 1923 the number killed was fifty-three. But Pennsylvania is the greatest hunting state in the union for variety of game. In the latter year the game bag included 6,452 deer, 500 bears and 6,049 wild turkeys."

An effective remedy for the slaughter of both men and animals is the substitute of the camera for the gun. Camera hunting has all the thrills of gun shooting; and it preserves the actual game alive while at the same time the animals and birds disport themselves in pictures and on the movie screen at the will of the hunter. No one who has experienced the thrill of hunting with a camera will resume the gun.

Some of the leading physicians of New York, Drs. F. R. Oastler and Harlow Brooks, for example, delight to entertain and instruct their medical brethren with picture clinics of their experiences in camera hunting.

HAIR WORMS AND SEX STUDIES

Every rural school boy will tell you that horsehairs can turn into worms, for he has seen them wriggle around in horse troughs. Every rural physician who has a reputation for knowledge in natural history is a center of information to whom natural curiosities are brought for identification; and among the specimens which he gets in the fall are hair worms looking like black horsehairs. These worms are parasites in grasshoppers; and when they are liberated, their eggs are laid on grass and are eaten by other grasshoppers. The hair worm is the subject of an article in the *New York Sun* of November 29, describing the experiments of scientists of the United States Department of Agriculture regarding the determination of sex. The article states:

"A few hairworm eggs are not necessarily immediately fatal to the grasshopper, but when as many as fifty are swallowed and hatched it results in the death of the grasshopper. In trying to discover the lowest number likely to cause the death of a grasshopper these researchers grow the eggs and feed them.

"There is no apparent escape from the conclusion that we are dealing with cases where environment is a sex 'determining' factor, a factor which becomes potent not during the early embryology of the animal, but after a well developed, highly differentiated larva has been formed.

"The three scientists hope their discovery will lead other experimenters to follow what they consider a most interesting and suggestive line of physiological research with the hope of learning more of the nature and origin of sex."

It has long been known that environment may determine the sex of a newly hatched worm, or insect. The queens of honey bees are produced by special kinds of food fed to the newly hatched larvae; and the sex of pomace flies may be directed by the manner in which the young are reared. But the researchers have not reached the stage in which the conclusions may have a practical application to higher animals.

SYNTHETIC CHEMISTRY

This year is the centenary of the birth of Marcelin Berthelot the father of Synthetic Chemistry. The *New York Tribune* of November 12, in an editorial appreciation of his work, says:

"For Liebig's habit of taking everything apart to see what atoms were in it Berthelot substituted the process of putting atoms together to see what new hings he could make. Unlike many discoverers, he knew full well the power of his new tool. 'The domain where synthetic chemistry exercises its creative power,' he wrote, 'is vaster than that which Nature has actually realized'—a prediction amply sustained, for the compounds since produced by chemical creation far exceed those found in Nature.

"Berthelot's first success at putting two atoms with another two to make a novel foursome was an imitation of the ants. These insects manufacture, as close contact with them proves all too well, an acrid liquid which pupils of Liebig had already analyzed and named formic acid. Berthelot put together carbon monoxide gas and water to make this same acid, thus dispensing with the ant. Next he made alcohol out of water and ethylene, ignoring the yeast. Finally, he manufactured acetylene from its two inorganic elements, carbon and hydrogen. In themselves these creations mattered little; no more than adding a column of figures. It is the idea that counts. Chemists found that they, too, can play at creation. If Nature lacks what they want they can make it for themselves."

OUR NEIGHBORS

THE BACTERIOPHAGE

The October issue of *California and Western Medicine* contains an article on the bacteriophage which will be of interest to the general reader. The following extracts show what the bacteriophage is and tell the theory of its action:

"The discovery of bacteriophagy by d'Herelle in 1916 marks the beginning of one of the most important epochs in the history of bacteriology, not only because of its theoretical, but probable practical bearing. In August of that year there came to the hospital of the Pasteur Institute an adult suffering with a severe form of Shiga dysentery. During the course of the patient's illness d'Herelle made bouillon cultures of the stools daily. These cultures were incubated overnight and filtered through a Chamberland filter. A few drops of the filtrate was then added to a young bouillon culture of dysentery bacilli and the mixture placed in the incubator. Throughout the course of the disease the tubes so prepared yielded normal cultures of dysentery bacilli. One morning, however, the tube prepared on the previous day was found to be sterile. At the same time it was learned that the condition of the patient had greatly improved. The sterile tube was filtered and a few drops of the filtrate was added to a fresh suspension of dysentery bacilli and placed in the incubator. In about ten hours this tube also became limpid. A few drops of the filtrate of this lysed culture induced complete clarification of the third suspension, and so on indefinitely in series. In other words, the lytic principle was regenerated with the dissolution of each culture.

"On spreading a suspension of Shiga bacilli, to which a little of the filtrate had just previously been added, on an agar surface, d'Herelle noted after incubation the presence of a number of small, circular, clear areas in an otherwise uniform turf of bacterial growth. These d'Herelle ascribed to the deposition of corpuscles of the lytic agent present in the mixture which he had spread on the agar surface. He believed that the original corpuscles deposited on the surface had parasitized and dissolved the growing bacteria in their immediate vicinity and that the clear areas actually represented colonies of the lytic corpuscles. The number of the clear areas varied with the quantity of the filtrate added to the bacterial suspension. D'Herelle concluded that the phenomenon must be due to an invisible parasite of the bacteria and he accordingly gave it the name of 'bacteriophage.'

"Following the isolation of a bacteriophage active on dysentery bacilli, d'Herelle isolated in rapid succession races active on a number of other species of bacteria, including B. coli, B. typhosus, B. paratyphosus A. and B., B. gallinarium, Pasteurella bovisepticus, Pasteurelle pestis, Vibrio cholerae, etc. Races active on staphylococcus and streptococcus and several other species have been added by other investigators.

"With few exceptions these races have all been isolated from the feces of man and animals, particularly from convalescents, and from water and soil. Indeed, according to d'Herelle every animal and every man harbors a bacteriophage in symbiosis with B. coli or other species of the normal intestinal flora. In the event of an invasion by a pathogenic bacterium the bacteriophage normally present gradually acquires a virulence for the invader and brings about its elimination after the virulence has attained a certain level.

"It is generally held now that the bacteriophage is of corpuscular nature. Indeed its size has been estimated to be about 20 to 30 units. According to one investigator it is of about the same dimension as the virus of vaccinia and of rabies. The bacteriophage is more resistant to heat than are vegetative forms of bacteria. The temperature of inactivation seems to be related to the degree of virulence. Some impairment of the activity is said to appear at 45C., but at about 75C. complete inactivation results in thirty minutes, whatever the race or degree of virulence. It is also more resistant to chemical agents than are vegetative forms of bacteria. It may retain its activity in filtrates over a period of years, though the corpuscles are said to diminish appreciably during this time. Injected repeatedly into the animal body the bacteriophage gives rise to an antiphagic serum, which is capable of exercising a definite inhibiting action on the phenomenon.

"According to d'Herelle, the outcome of a bacterial infection probably depends on the rapidity with which the bacteriophage naturally present in the intestine acquires a virulence for the invading organism. Under favorable conditions a rapid adaptation on the part of the bacteriophage results in an early elimination of the pathogenic organism after only a few mild symptoms, or no symptoms at all. Under less favorable conditions the acquired virulence appears later and there is a proportionate delay in the abatement of the disease symptoms. At any rate, a potent bacteriophage is said to make its appearance simultaneously with the onset of convalescence. Moreover the bacteriophage does not remain con-

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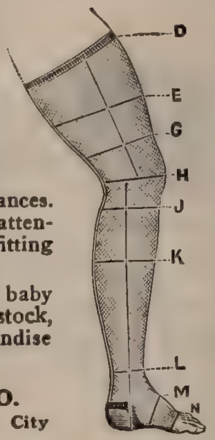

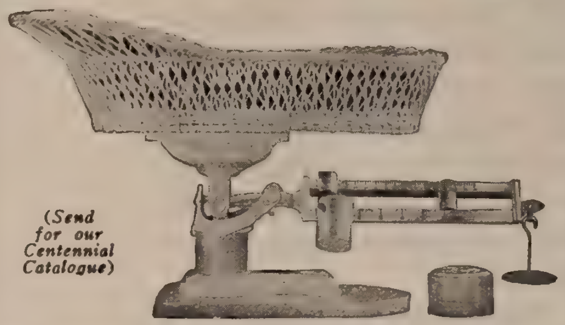

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fined to the intestinal tract, but, as has bee shown by several investigators, may pass into th circulation and so reach affected tissues lyin outside of the alimentary tract. In other word although this latent defense resides in the intestinal flora, once aroused, its activities may extend to distant tissues in the body.

"Moreover, according to d'Herelle, the virulent bacteriophage eliminated in the feces of th convalescent may be in turn ingested by norma individuals living within the zone of an epidemi and so convey a timely protection to otherwis susceptible individuals. In other words, he hold that this particular type of immunity, like th disease itself, is infectious in character. Th epidemic ceases at the moment when all susceptible individuals harbor a bacteriophage activ for the causative organism of the epidemic Either the bacteriophage has acquired a viruence in the body of the individual who harbors it, o this individual has been 'contaminated' by a bacteriophage which has acquired a virulence in another individual for the specific bacterium involved.

"With these introductory remarks let us proceed to a consideration of the possible prophylactic and therapeutic value of the bacteriophage.

"In 1919 d'Herelle reported significant results following the immunization of chickens against fowl typhoid during the course of a natural epizootic. About 1600 chickens, including 100 chickens already sick, were inoculated. Each animal received 0.5 cc. of a virulent bacteriophage subcutaneously.

"Buffaloes have a highly fatal hemorrhagic septicemia known as barbone. The high mortality among these important beasts of burden entailed a great economic loss to the country. d'Herelle states that during an epizootic which he witnessed in one of the provinces, 10,000 of the 30,000 buffaloes in the region succumbed to the disease. The mortality approached 100 per cent. The Government therefore placed a number of animals at the disposal of d'Herelle and Le Louet for investigation. They first undertook to determine the value of the bacteriophage as an immunizing agent against experimental barbone. The bacteriophage employed was a highly virulent race which d'Herelle had recovered from the feces of a buffalo which passed unaffected through the previous epizootic. The bacterium employed to test the immunity was a highly virulent organism which killed the control animals within twenty-four hours.

"According to d'Herelle, Le Louet later, as Inspector-General of the Veterinary Service of Indo-China, proceeded to carry out the immunization on a large scale. In September of 1923 he reported that none of the 12,000 buffaloes im-

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munized had contracted the disease, despite the fact that it was prevalent in Indo-China. In 1925 Le Louet reported that the immunization had been continued and that the incidence of barbone had been reduced to practically nothing.

"Up to 1924 da Costa Cruz prepared as a member of the Institute Oswaldo Cruz, at Rio de Janiero, about 10,000 ampouls for distribution to hospitals and physicians in Brazil. There have been to his knowledge only two exceptions to the uniformly good results reported. Indeed, the promptness with which the patient responds to the treatment is a matter of astonishment to the physicians. The patients as a rule enter on convalescence within twenty-four to forty-eight hours after the bacteriophage has been administered. In Rio de Janeiro this method of treatment is now routinely employed in bacillary dysentery.

"In the preparation of the bacteriophage suspension destined for therapeutic use, d'Herelle emphasizes that 'it is absolutely indispensable that the bacteriophage be of maximum virulence for the bacterium upon which it is to act.' It is furthermore imporant that the filtration be made through a candle of known efficiency and that the tubes be inspected for freedom of bacterial growth before use. It is administered by mouth. About two cubic centimeters of the filtrate is given in a half glass of water. Twelve hours later a second dose may be administered. The ingestion of the bacteriophage is harmless, whatever the dose, either for a normal man or a patient suffering from some other disease. In other words, there are said to be no contraindications.

"In the treatment of colon infections of the urinary tract the bacteriophage is administered subcutaneously and by instillation into the bladder. Subcutaneously it may be administered in doses of about 2 cc. at an interval of about twenty-four to forty-eight hours, but not more than two doses should be administered in this way. Bladder instillations should be made at the same time with about a 1:10 dilution of the bacteriophage in physiological saline. The instillations may be repeated, but if a therapeutic effect does not appear within a week it is probable that none will be realized. No reactions are said to follow the administration of the bacteriophage."

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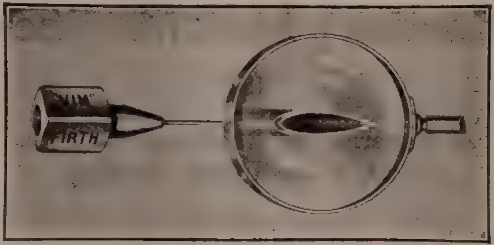

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VIVISECTION OF CRIMINALS

It is an old suggestion, sometimes put into practice, that murderers be subjected to vivisection by scientists in place of being put to death in the usual ways. The Illinois Medical Journal for November has a historical article on the subject by Dr. Edward Podolsky of Brooklyn, from which the following extracts are taken:

"The desire for medical truth had manifested itself very early in human experience. The practical utilization of murderers was commenced in early Egypt. Somewhat later, Ptolemy Philadelphus attained notice by placing at the disposal of the scientists of Alexandria criminals convicted for the worst crimes. The rise of Alexandria to a medical center in ancient times was in great measure due to this institution.

"Several centuries later Herophilus, the Chalcedonian and pupil of Praxagoras of Cos, and later Diocles of Carytus, the first of the Hippocratic school to distinguish himself as an anatomist, began to dissect criminals. These were gotten from the prisons by royal permission. With Erasistratus, Herophilus carried on his anatomical researches on the bodies of living criminals on a large scale, it being reputed that Herophilus alone dissected over six hundred criminals in these studies. The ancient apologist for the human vivisections of Herophilus and Erasistratus used to say that it is not to be called an act of cruelty, as some persons suppose it to be, to seek for the remedies of an immense number of *innocent* persons in the sufferings of a few *criminals*."

The next important stage in the history of criminal vivisection was enacted during the Middle Ages. In Montpellier and in other French cities, at this time, physicians vivisected criminals in their search for medical truth. In the Italian cities of Florence, Venice, and Pisa, this practice was sanctioned and practiced. In the Criminal Archives of Florence Professor Andreozzi has discovered the fact that during the reign of Cosimo de Medici, condemned criminals were from time to time sent to the scientists of Pisa, there to be anatomized. After the date 1570 no more cases occur in the Archives. In all, thirteen criminals were delivered over for specific scientific research. During part of this period the great Vesalius and his pupil Fallopius were carrying on their researches in anatomy and lecturing on this science.

"After this period the vivisection of criminals diminished to a very small scale. Now and then a vivisection was performed for some definite purpose. Such was the case when Henry II of France was mortally wounded by a splinter from a spear which had entered below his vizor and pierced his eye, and the surgeons, for the purpose of discovering the probable injury done to the

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king, cut off the heads of four criminals and thrust splinters into their eyes at the same inclination as the fatal one that had entered the eye of the king.

"Several generations ago, in France, a celebrated savant, author of a work on the effects of imagination, desired to prove his theories by actual practice. For the purpose of carrying out this proposition, he requested the Minister of Justice in Paris to allow him to try an experiment on a crminal condemned to death. The Minister consented, and turned over to the physician a murderer of distinguished rank. The scientist informed this unfortunate that several persons being interested in his family had prevailed upon the judge not to require of him the usual means of execution. His sentence, he was told, was therefore changed. "But," continued the physician, "you shall be bled to death within the precincts of your prison; your dissolution will be gradual, and free from pain." The criminal submitted to his fate, thinking that his family would be less disgraced through this procedure, and considered it a special favor to be put to death in this manner. He was accordingly made ready for the experiment. By conducting affairs cleverly he was readily made to believe that his veins had been opened and that his blood was flowing freely, whereas, he had been but gently pricked on the skin, and small fountains of water were placed about him, to simulate the flow of blood. Within a few hours the man was dead, and the doctor was satisfied with such a practical confirmation of his theories. Thus a criminal condemned to death consented to die in a manner that was both useful to society and more pleasing to himself than had it been at the hands of the executioner.

"In the United States there has been at various intervals earnest and serious discussion of this question. Among the most notable was that at a meeting of the Tri-State Medical Association, held at Peoria, Ill., October 3, 1893. At this time Dr. John S. Pyle read a paper entitled 'A Plea for the Appropriation of Criminals, Condemned to Capital Punishment, to the Experimental Physiologists.'

"Several years later Mr. Rowlen introduced into the Senate of Ohio a bill proposing the vivisection of capital criminals. (House Bill No. 135, 71st General Assembly, Regular Session.)"

THE ETHICS OF MEDICAL PUBLICITY

Publicity of the work of hospitals and dispensaries often brings upon the institutions the insinuation that they may not be entirely ethical in their statements and claims. It also raises the

(*Continued on page* 1340, *adv. xviii*)

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(*Continued from page* 1399, *adv. xvii*)

question whether or not an institution may properly give out information that would border on the unethical and the advertising, if it were issued by a private practitioner. The ethics of advertising has sometimes involved hospitals connected with medical schools. It entered indirectly into the criticism of the management of the Cornell Pay Clinic, which was the subject of an editorial in this Journal of February 1, 1926. It has recently developed in an acute form in the Vanderbilt Hospital of the Vanderbilt School of Medicine in Nashville, Tennessee, and is discussed in the November issue of the *Journal of the Tennessee State Medical Association.* A news item described the action of the Nashville Academy of Medicine and quoted the following letter which was sent to the Dean of the School of Medicine:

"The Nashville Academy of Medicine has taken official notice of certain articles occurring at various times in the lay press of this city relative to the special facilities enjoyed by the Vanderbilt Hospital both as to the personnel of the hospital and by virtue of its intimate association with the Vanderbilt School of Medicine. Among the articles referred to are those occurring in the *Nashville Banner* of October 9, 1927, and the *Nashville Tennessean* of October 16, 1927.

"These articles seem to bear the stamp of authoritative promulgation. It appeared to this body that these publications were improper in wording and their implications. The matter was referred to the Board of Councillors, composed of the ex-presidents of the society, for consideration. The Board of Councillors decided unanimously that the articles were unethical and in bad taste. A motion was passed asking the Nashville Academy of Medicine to address a letter to you through its secretary embodying that decision."

Commenting on the newspaper articles the Journal says editorially:

"They do not lay claim to any new or startling discovery that is of any practical usefulness to humanity. They do emphasize the degree of expertness of persons engaged in work in the medical school and hospital, and it is clear that the articles are calculated to impress the public with the idea that a very superior professional service is to be obtained in the hospital."

The editorial closes with the following observations:

"The public and certainly the lay press labor under a false impression as to what the principles of medical ethics really are. The principles of medical ethics constitute the greatest protection to the public against fraudulent and misleading claims by doctors or charlatans concerning themselves or their remedies. There is not a provision in medical ethics that hinders in the least the 'free

(*Continued on page* 1401, *adv. xix*)

(*Continued from page* 1400, *adv. xviii*)

exercise of desire or judgment on the part of the layman.

"If the paragraph in the code of ethics relating to the matter of advertising were abolished tomorrow, and every practicing physician or institution allowed to state in the form of advertisement his opinion of himself and his skill in the handling of disease, just what would be the benefit to the public? There is no doubt that the fellow with the largest appropriation for advertising and the best advertising manager, regardless of his skill or ability, would become the most active in practice.

"The public might with profit observe the following general rule or truism: The doctor who, out of hope for gain, will violate the provisions of the code of ethics which govern his relationship to his fellow practitioners, will from the same motive in all probability violate those provisions which govern his relationship to his patient.

"Shall we adhere to the code or shall it be abolished?"

NARCOSAN IN DRUG ADDICTION

The treatment of drug addicts by a preparation called narcosan was featured in the daily press of New York City from December 14, 1926 to the middle of January, and an adverse judgment regarding its efficiency was published on page 144 of this Journal for February 1, 1927. A condemnatory notice of narcosan was carried by the *Journal of the American Medical Association* for December 18, 1926, page 2097. The wide publicity given to the new treatment has led intelligent inquirers to ask why the medical profession does not investigate narcosan and test its virtues. The November issue of *Colorado Medicine,* the organ of the Medical Societies of Colorado and Wyoming, reports a trial of the treatment. The account says:

"The composition of narcosan as stated by Lambert and Tilney is a solution of lipoids together with non-specific protein and water soluble vitamines. The theory of the action of narcosan in the body is that narcotics such as morphine call forth in the body certain protective substances to neutralize them. If the narcotics be suddenly withdrawn and not given, these neutralizing substances are themselves toxic to the body. The lipoids in narcosan neutralize these toxic substances in place of the narcotics.

"On admission to the hospital the patient was given 1½ to 2 grains of calomel followed in three hours by 1 ounce of magnesium sulphate. As soon as he was thoroughly purged the administration of narcosan was begun.

"The treatment followed at the Colorado Psychopathic Hospital prior to the use of narcosan

(*Continued on page* 1402, *adv. xx*)

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(*Continued from page* 1401, *adv. xix*)

consisted in the immediate withdrawal of all narcotics, the use of bicarbonate of soda to combat any tendency toward acidosis, detoxification by the daily use of high colonic irrigations and the control of restlessness by the use of continuous baths at a temperature of 98 to 100 degrees Fahrenheit.

"Publicity attendant upon the introduction of the narcosan treatment resulted in twenty-two of the twenty-four cases entering the hospital thoroughly convinced of the efficacy of the drug. In view of the well known suggestibility of these patients, we feel that this has been an important factor in the subjective reactions to treatment.

"All of the patients treated showed the characteristic withdrawal phenomena to a greater or less degree. Seventeen showed nausea and vomiting and they and the remaining seven showed restlessness, irritability, abdominal cramps and pains in the legs. Eleven patients stated that they were definitely relieved by narcosan injections, seven stated that they could see no influence on their immediate withdrawal symptoms and the remaining six were definitely opposed to the use of narcosan, feeling that it added to their discomfort.

"The influence of narcosan on the amount of sleep obtained by the patients undergoing treatment has been stressed in the report previously mentioned and careful observations were made in this regard. The average amount of sleep obtained during the first 96 hours under treatment was 16 hours or an average of 4 hours per night. During the second period of 96 hours an average of 24 hours' sleep was obtained, an average of 6 hours per night. During the remainder of their stay in the hospital the patients averaged 6½ hours' sleep per night.

"Contrasted with this sleep record is the record of those patients treated in the Colorado Psychopathic Hospital before narcosan was used. During the first 96 hours this group averaged 20 hours of sleep, an average of 5 hours during each night. In the second 96 hours, an average of 25 hours' sleep was obtained or 6¼ hours per night. During the remainder of their stay in the hospital an average of 7 hours' sleep per night was obtained.

"The follow-up reports have not been encouraging. Of the twenty-four patients treated only nine had permanent addresses. Information of the remaining group was obtained from other associates. Information has not been obtained on six. Of the eighteen about whom reports have been obtained eleven have returned to the use of drugs. Of the control group there was no information on eight, but four were known to be off of drugs.

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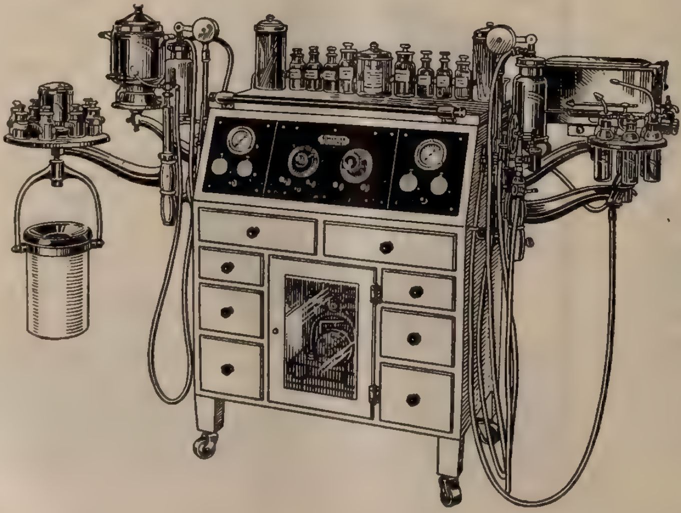

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THE ACTION OF THE SPLEEN

The November issue of the *New Orleans Medical and Surgical Journal* has an editorial on the spleen; and after referring to its function in making and destroying blood, it further enumerates the uses of the organ as follows:

"The spleen plays an important part in immunity. It is instrumental in antibody formation; it fixes toxins, and it has an elective affinity for bacteria. Also it is a most important organ in the reticulo-endothelial system. Certain cells of the spleen are markedly phagocytic, which may play some part in its immunological activities. Further immunological functions are not proven in human beings, but are assumed from animal experimentation. The spleen probably helps to inhibit the growth of tumors. Splenic implants of tumor growths grow much less readily than elsewhere in the body; and likewise tumor implants grow very much more readily in the splenectomized animal than in the non-splenectomized. It plays some rôle in aiding natural immunity to tuberculosis. Tuberculosis of the spleen as a primary condition is rare. As a secondary manifestation it is rarely found until the body is overrun by the infection. Animals with large spleens are difficult to infect by injections of the bacillus of tuberculosis, as, for example, the cat and the dog. On the other hand, animals with small spleens are readily infected, such animals being the well-known laboratory mammals, rabbits and guinea-pigs. That the spleen plays any part in digestion or metabolism is a mooted question. Probably it has something to do with the metabolism of iron."

BASIC SCIENCE EXAMINATIONS

The question of examinations in the basic medical sciences was discussed by Dr. W. C. Woodward, executive secretary of the Bureau of Legal Medicine and Legislation of the American Medical Association on November 18th, at the Annual Conference of State Secretaries and Editors of State Medical Journals.

The results of the examinations in the State of Washington, one of the five States having the basic science law, and stated editorially in the November issue of *Northwest Medicine* as follows:

"The Basic Science Act, which passed the last session of the Washington legislature chiefly as a result of efforts on part of the Public Health League, has been in effect a sufficient length of time to demonstrate results already accomplished and to suggest what may be anticipated from it in the future. Its essence is the requirement that all persons caring for the sick must pass an examination at Olympia in the subjects of anatomy, physiology, chemistry, pathology and hygiene, which are recognized as the foundation of all methods of treating human ailments.

"Reports from the Department of License at Olympia show that medical applicants are successfully passing in these subjects, with a fair percentage of osteopaths. Chiropractors, sanipractors and other forms of drugless healers evidently have been conspicuous by their absence. In fact, from some of the recognized legal forms of cultism there have not appeared of late a sufficient number of applicants for license to make necessary an examination. It is notable that there has come about a marked reduction in the number of healers of various sorts who have been flocking to Washington recently in large numbers. There is every reason to believe that the administration of this Act will have a permanent effect in purifying the various classes of practitioners who in the future will attend the sick in this State."

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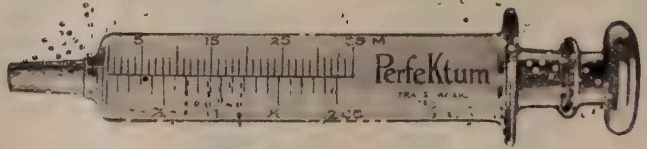

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